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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 \$8.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

HORSES.

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CATTLE.

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

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POLAND-CHINAS.—Dietrich & Gentry, Richmond, Kas., have a fine lot of fall sows and two very fine young sows bred that they will sell cheap. Breeding choice. Quality guaranteed. Write or come and see us.

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

SWINE.

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CATTLE AND SWINE.

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

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

"THE PROOF OF THE PUDDING IS IN THE EATING." The proof of good poultry is the show-room. At the State show, January 8-14, 1895, my birds took two first and three second premiums, and only six birds were shown. Eggs for hatching from as well-bred Barred Plymouth Rocks and Light Brahmas as are in the West, for only \$1 per thirteen. Stock for sale. Henry E. Peers, Marion, Kansas.

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SWINE.

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

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Have for sale pigs from State fair winners. Can fill classes for show. Boars for fall service. A few choice sows bred. Address G. W. BERRY, Berryton, Shawnee Co., Kas.

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SWINE.

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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.

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Regist'd Berkshire Swine 45 in herd, headed by Lord Majestic 34768, a son of Imp. Lord Windsor 80461; dam Imp. Majestic 80459, 6 boars, 12 glits, by Model Duke II. 22487, and 9 fall of 1894 farrows, both sexes, for sale. Write or come.

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Imported and prize-winning American sows headed by Imp. Western Prince 32202. All selected and bred to head herds and to supply those wanting none but the best. Fall litters now can't be beat. Write or come visit me and see the herd.

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.

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.

JOHN KEMP, North Topeka, Kas.—breeder of improved Chester White Swine. Some fine young boars fit for service for sale. Correspondence invited.

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.

BERKSHIRE, Chester White, Jersey Red and Poland China PIGS. Jersey, Guernsey and Holstein Cattle. Thoroughbred Sheep. Fancy Poultry. Hunting and House Dogs. Catalogue. S. W. SMITH, Cochranville, Chester Co., Penna.

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J. A. WORLEY, Sabetha, Kansas. Poland-China Swine, Short-horn Cattle, Light Brahmas and G. L. Wyandottes. Herd headed by Anxiety 20251 A., assisted by Combination U. S. 13408 and America's Equal 12279. Have some choice fall pigs, both sexes, for sale, and a few Light Brahma cockerels. Eggs \$1 and \$1.50 per setting. Write. [Mention KANSAS FARMER.]

A. E. STALEY, Ottawa, Kansas. CHESTER WHITES AND POLAND-CHINAS. Light Brahma eggs \$1.50 for 15.

HOLSTEIN-FRIESIANS Careme 2d's Jacob Prince of Twisk 404 heads herd, backed with butter record of over 35 lbs. in 7 days. Young bulls for sale. Red pigs in pairs, heavy bone, good color, dams often farrowing 14 pigs. Males

DUROC JERSEY REDS ready for service. Poland-China males ready for use. Pigs of all ages in pairs not related. Young glits, either bred, bred if desired. Pigs shipped at my risk. Pedigrees furnished. M. H. ALBERTY, Cherokee, Crawford Co., Kas. Mention FARMER.

AND POLAND-CHINAS.

W. S. ATTEBURY, Rossville, Kansas. BREEDER OF Chester Whites Exclusively. Young stock at all times. Satisfaction guaranteed.

CATTLE.

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C. S. CROSS, Proprietor, Emporia, Kas.

Breeder of PURE-BRED HEREFORD CATTLE. Herd headed by Wild Tom 51502, a son of Bean Real 11055 and assisted by sons of Cherry Boy 26475, Archibald 1st 39258 and Washington 22615. 200 head, all ages, in herd. Strong in the blood of Lord Wilton, Anxiety and Horace. A choice lot of young heifers, fit for any company. Bulls all sold. Correspondence solicited, or, better still, a personal inspection invited.

SHANNON HILL STOCK FARM.

G. W. GLICK, ATCHISON, KAS.

Breeds and has for sale Bates and Bates-topped SHORT-HORNS. Waterloo, Kirklevington, Filbert, Crags, Princess, Gwynne, Lady Jane and other fashionable families. The grand Bates bulls Waterloo Duke of Shannon Hill No. 89879 and Winsome Duke 1115, 137 at head of herd. Choice young bulls for sale now. Visitors welcome. Address W. L. CHAFFEE, Manager.

MAKIN BROS. Hereford Cattle.

Choice stock for sale of both sexes. We will sell any individual, a carload or the whole herd at reasonable prices. Write or come and see us. Address Florence, Marion Co., Kansas.

SWINE.

BERT WISE, breeder of Poland-China Hogs, Holstein Cattle and Barred Plymouth Rock Chickens of 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. Three are out of my Orient sows. Write your wants. Satisfaction guaranteed.

BERT WISE, Reserve, Brown Co., Kas.

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, Wana-maker. Aged sows, bred glits and fall pigs for sale.

Evergreen Herd Poland-Chinas.

J. F. & P. C. Winterscheidt, Horton, Brown Co., Kas. 150 in herd. Boars in service: J. 11893 S., Corbett 11859 S. and Winterscheidt's Victor (Vol. 9). 45 sows bred for coming pig crop. 10 young boars and 40 glits ready to go. Write or come.

JOHN A. DOWELL'S HERD REGISTERED POLAND-CHINA SWINE.

Robinson, Brown Co., Kas. 130 head, all ages, headed by Onward 8981 S., sired by George Wilkes. He is assisted by Tecumseh Wilkes, sired by General Wilkes 21927. The females belong to the best strains. Come or write.

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 bred and have for sale the best thoroughbred Poland-Chinas that can be obtained. Write or come and see.

D. W. EVANS' HERD REGISTERED POLAND-CHINAS.

FAIRVIEW, BROWN CO., KAS. 250 head headed by Swi Tecumseh 11929 S., by L's Tecumseh 11413 S., and Billy Wilkes 939 S., by George Wilkes 6950 S. A public clearance sale on Thursday, February 14, 1895, of 75 sows bred to these and other noted boars. Inspection invited.

(Breeder's Directory continued on page 16.)

FARMERS!

Prevent Your Hogs From Rooting

By Using the Genuine



WOLVERINE HOG RINGER and RINGS.

Best and Cheapest in the market. For sale at Hardware and General Stores. Man'd by Heesen Bros. & Co., Tecumseh, Mich.

Agricultural Matters.

MAKING THE MOST OF OUR NATURAL SUPPLY OF MOISTURE.

Read before the annual meeting of the State Board of Agriculture, by Senator James Shearer.

In these times, when shortage of rainfall has discouraged the average farmer, we can well afford to look on the bright side of the subject, if such there be.

We must and will develop a system of farming suitable to our State. Our first effort must be to select crops suited to our soil and climate. The almost complete failure of common tame grasses during the late dry seasons, sets us to casting about for a substitute. Much is expected from alfalfa, but years must elapse before it can be tested fully. As a substitute for tame grass we find millet the best. Two tons of good hay, and, if threshed, fifteen to twenty-five bushels of seed per acre, is a common yield, while a crop of corn will do better after it than after a crop of corn. But we would especially recommend it for a second crop. Instead of having our small grain land lying idle half the season and growing weeds, it can be put in much better condition for a crop next season by plowing as soon as possible after small grain is harvested and sowing with millet. Last year, through dry weather and heat, it lived, ready to start with the first fall showers, and just before frost one-half a ton to two tons per acre of good cattle hay was cut, leaving enough stubble on the ground to prevent soil blowing—an important item, for in many localities the drought-resisting advantages of fall plowing cannot be reaped, at least on upland, for fear of soil blowing in the spring. By sowing at different times, as needed, millet will make a substitute for pasture grass passable in quality and bountiful in quantity, from the first heat of summer till frost. Many worn-out pastures on small farms (and who has not seen them?) would produce very much more feed if seeded with millet and pastured, one piece at a time, by moving a fence. For hog pasture, sorghum will largely take the place of clover. Hogs can be turned in when it is six inches high and run to advantage till the last of the seed is consumed in October.

Much can also be done in the way of handling crops to counteract dry weather. Thickly planted corn, of course, suffers first. We must plant reasonably thick to cover accidents, grubs, cold, wetness, etc., so that by present methods it is but guess-work. Any system or means of thinning corn cheaply would solve the problem. We suggest a thinning machine, on the principle of a rear-cut mower, driven over the row, with hoe-like knives revolving on the rear shaft at a regulatable speed. Such has been used successfully for thinning turnips, and might be adapted to corn, so that by planting thickly and thinning later, a perfect stand could be obtained every year. Again, in times of extreme drought, if every third row of corn were cut and saved for feed, that left would yield the more. A commonsled cutter, with one knife removed, would do the work in a way. But we understand that the McCormick Machine Co. is now making a corn-binder, propelled by two horses, so that one row can be cut and bound without trampling on the other. By shocking the fodder on the growing rows and tilling the cut row with the lister, thereby mulching the growing corn, many more bushels could be harvested from the acre and much very valuable feed be saved. As part proof, we think of a row missed in planting last season where the two rows on each side had more corn than the next ten.

Again, a great field lies open in the way of making the most of our heavy, dashing summer showers. Oftentimes before the ground is wet down properly the water runs off, washing out the young corn and carrying much valuable soil with it. This last evil is so great as to call for putting into effect any reasonable remedy available. We this season tried listing across the hillside. Sometimes, of course, fields roll and vary in slope so that perfection in that line is impossible. But we did not

scruple at making rows crooked, in any way, just so the turn could be easily followed in cultivating, securing where possible a regular fall of, say, not to exceed four inches to the rod, so that water would not stand in the rows but flow so slow as not so wash.

A test was made in gathering corn, where on a slope of eight inches to the rod for sixteen rods the rain water flowed to the land below which had less slope, say three inches to the rod, where it was mostly absorbed. With no difference in the quality of soil, the yield of ear corn was just 70 per cent. greater on the lower piece. On this plan, with the ground after cultivating still ridged in rows, the water, instead of flowing off rapidly and washing the soil, moves slowly and is gradually absorbed.

This ridging in cultivating is not in harmony with late ideas about shallow cultivation, which method we also had an opportunity to test in a field of corn cultivated all over shallow the first time. One-half of it was cultivated quite deep with a common cultivator, the second and third times. The other half cultivated the second time with disc cultivator and the third time with a spring-tooth cultivator. The yield showed one bushel per acre greater for the deep cultivation, and appearances indicated yet greater difference.

Speaking of washing, we would suggest planting bars of willows across the sloughs and washouts. Stakes two feet long by three inches thick (of any willow that will not sprout at the roots) pointed and driven eighteen inches into the ground in early spring in a row, following the common line of cultivation will grow readily and hold trash and soils. By cutting them down once a year, a better bar at the same cost and forming less obstruction to cultivation can not be found. We have a slough that has been thus barred by a willow hedge for twelve years. The bottom is now six rods wide and filled in to a depth of three feet, so that the water moves slowly, and at that rate of filling up, one such bar every twenty rods or so would, instead of an impassable gulch, give for each one an acre of good land bearing a doubly heavy crop; and in many cases such water could be drawn out onto the adjoining land by listing through the slough at an angle.

Bromus Inermis.

EDITOR KANSAS FARMER:—Have you learned how the "Hungarian brome" stood it the past two years at Garden City Experiment Station—if there are any hopes of raising it with success? Please answer and oblige your subscriber. J. R. JENISTA. Doster, Kas.

The above inquiry was referred to Mr. F. W. Dunn, Superintendent of the Agricultural college sub-station at Garden City, who replies as follows:

"The *Bromus inermis* and other experimental grasses on the United States Grass Experiment Station, at Garden City, Kas., (the station was discontinued a year ago), have ceased to thrive since the Superintendent is no longer here with his magic pen to portray their desirable qualities and matchless growth. The twenty-acre field of *Bromus inermis* mentioned on page 205, report of Secretary of Agriculture, 1892, as making "a very satisfactory growth," and "next season, with the average rainfall, will probably yield 250 to 300 pounds of seed per acre," during the past summer (1894) was concealed from my longing gaze by an ordinary growth of buffalo grass. *Bromus inermis* is no good in this part of the State unless frequently and thoroughly irrigated, and even under these conditions is not to be compared with alfalfa.

"I have received many inquiries about *Bromus inermis* from farmers seeking a grass that will withstand drought. I usually reply, if blue grass thrives, grows luxuriantly in your locality, probably *Bromus inermis* will do as well. It is no good here.

"I read with much pleasure the valuable article on subsoiling, contributed by Mr. Eli Benedict, of Medicine Lodge, published in the KANSAS FARMER of March 6. It is among the latest of a number of valuable articles presented to the public through the

medium of the ever-progressive KANSAS FARMER, involving improved methods of farming.

"The farmers of those sections of the country in which the annual rainfall is usually sufficient to grow good crops, who have adopted better and more careful methods of farming and have practiced them for a series of years, have received greater returns with less expense than they would have received had they attempted irrigation. A few specialists may irrigate with profit, but I still advocate better methods of farming as the kind of irrigation for the rain belt sections of the United States."

"Sacaline."

EDITOR KANSAS FARMER:—Many inquiries suggest the propriety of recounting our experience with this new so-called "forage plant" which is being so widely advertised by seedsmen during the present season.

This plant was called to our attention a year ago by the report of a French botanist, which was partially reprinted in one or two of the leading agricultural journals in America. He called attention to the extraordinary growth of this plant, which he estimated, on the basis of a very few specimens, to have yielded as much as 180 tons of green forage per acre in one season, and stated that cattle to which it had been fed ate it with avidity. It was noted, however, that it grew on rich, moist soil and it evidently had plenty of room and good culture.

The plant reported on by the Frenchman was said to be from the island of Sachalin in the sea of Okhotsk, north of the Japanese group, and was a wild species of the buckwheat tribe (*Polygonum sachalinense*). It is to be noted that its home is in a cold, moist climate, where the winters are severe, the rainfall heavy and the atmosphere at all seasons moist. It is also listed among the thirty-four distinct species of *Polygonum* found in Japan, the conditions there as to moisture being the same as further north, though the temperature is more moderate.

A plant of such extraordinary productive powers as stated in the French report, with possibilities for usefulness as a forage plant deserves to be investigated. We, therefore, procured a dozen plants from Pitcher & Manda, a nursery firm of Short Hills, N. J., and planted them out in April last. The plants, or rather roots, started to grow promptly, but a late mild frost killed the shoots to the ground, after having reached a height of six to nine inches. One-half the plants did not start to grow again; the remaining six sent up feeble sprouts, which reached a height of eighteen to twenty inches, before the severe drought of last season set in, in the latter half of July. When the hot, dry weather came they ceased to grow, lost their leaves and apparently succumbed completely.

This is the brief history of one season's trial at this station with the much-talked-of, over-advertised "sacaline." The results do not hold out much promise of enormous yields of palatable and nutritious green fodder, which most seed catalogues would lead us to believe this plant will furnish. On the contrary, it seems to be entirely unsuited to the dry, hot climate of the Western States, and the facts as to the climatic conditions of its native habitat would seem to explain its behavior here. One point difficult to understand is why a plant which has its home in Siberian latitudes should be so sensitive to a very slight frost, as ours proved to be. It leaves room for the suspicion that we may not have had the genuine article but instead a tender species from some southern region. We have recently procured seed from two distinct sources in order to give the plant another trial; but have but little hopes of more favorable results than last season. Whatever it may do in moist climates, I do not believe that a plant from that region can be of any signal value as a forage plant in a dry, hot climate like ours. The seed is imported from Japan and is costly, and I would advise those farmers who have been prepossessed in favor of this plant by the extraordinary statements in seed catalogues, to await further developments

THE OLDEST AND THE BEST

Cough-cure, the most prompt and effective remedy for diseases of the throat and lungs, is Ayer's Cherry Pectoral. As an emergency medicine, for the cure of Croup, Sore Throat, Lung Fever and Whooping Cough,



AYER'S

Cherry Pectoral cannot be equaled. E. M. BRAWLEY, D. D., Dis. Sec. of the American Baptist Publishing Society, Petersburg, Va., endorses it, as a cure for violent colds, bronchitis, etc. Dr. Brawley also adds: To all ministers suffering from throat troubles, I recommend

AYER'S Cherry Pectoral

Awarded Medal at World's Fair.

AYER'S PILLS Cure Liver and Stomach Troubles.

before they invest much money in it. Should further trials show it to be a good thing, it will be time enough to get a start in it.

I may add that while in Japan some years ago, I frequently saw a coarse species of *Polygonum* growing in the volcanic sand and scoria in gulches and mountain valleys. It corresponds to the description given of this "sacaline." It is a coarse weed, six or eight feet high, and would be one of the last things a farmer would pick out as a forage plant, and if it has any value as such the Japanese themselves did not know it. Whether it was *Sachalinense* or some allied species, I am unable to say, but I suspect that it is the plant which furnishes the seed now being sold here under the name of "sacaline".

C. C. GEORGESON.

Kansas Agricultural Experiment Station.

Alfalfa for Swine.

EDITOR KANSAS FARMER:—In Mr. Coburn's book on "Alfalfa-Growing," a number of contributors asserted that hogs could be raised from weanlings on alfalfa pasture with no other feed. That while the alfalfa would not fatten them for market, they would grow up to 150 to 175 pounds. Feeling a little skeptical as to these statements, I wrote to five of the contributors to get more definite information. I was favored with one reply only—this from a Mr. L. Wirt Markham, of Lamar, Col. This reply consisted of a glowing immigration circular with his name on its back. The flippancy of this reply to an earnest request for practical details did not increase my faith in the proposition. Now, among your readers, are there any who, from personal knowledge, can answer these questions: (1) Will pigs, directly they are weaned, go on alfalfa pasture and thrive and grow with no other feed? (2) If fed nothing but alfalfa, will they not get badly "pot" or clover-bellied? (3) What weight will they attain on a straight alfalfa diet and no other feed? (4) If, after weaning, they get other feed, how much and for how long a time before they are put on a straight alfalfa diet or pasture?

EAST FARM.

If afflicted with scalp diseases, hair falling out, and premature baldness, do not use grease or alcoholic preparations, but apply Hall's Hair Renewer.

I am wearing a pair of glasses that give me perfect satisfaction, the only spectacles I ever had that did not make my eyes ache. They were fitted by Mr. Chas. Bennett, optician, 718 Kansas avenue, Topeka, Kas. If I could not get another pair like them, I would not take \$1,000 for them. J. H. LANE, 680 Lane street, Topeka, Kas.

The Stock Interest.

ECONOMY IN FEEDING FARM STOCK.

By P. J. Spreng, and read before the Farmers' Institute at Oak Grange Hall, Shawnee county, March 7, 1895.

Economy primarily implies management, regulation, the disposition or arrangement of any kind of work, a frugal and judicious administration which expends time, labor and its fruits without waste. With this understanding of the subject, I shall endeavor briefly to note conclusions suggested by observation and practical experience, giving no heed to the scientist's analytical regulation, balanced ration, which is not self-sustaining to any very considerable extent, but obtains principally in the minds of the emissaries of public appropriations. Neither shall I give any thought to summer feeding. Nature, if permitted, will kindly and bountifully provide during that period. But for the season when the allied effects of a parching summer sun, of blighting winds, and of autumn frosts, have withered and shrunk the pastures, provision needs to be made.

From the time in the fall when it becomes necessary to begin feeding until hard freezing weather sets in, I have found nothing so satisfactory, so cheap and so certain under our varied climatic conditions for all classes and all kinds of farm stock as sorghum. It requires no preparation but may be fed whole on the ground without loss from waste. After this has been fed out, wheat pasture will be found well worth its cost during winter and early spring. This, with either clover, oat, Hungarian, white millet, mature corn fodder or timothy hay (value of these estimated in the order named), fed judiciously from proper mangers, with a free and plentiful supply of pure water and shelter from storms, will put your stock through any winter in first-class condition without the aid of grain or the even more expensive mill feed, provided, always, that all cattle be dehorned.

Of paramount importance, but more difficult of successful management, is the hog, which, when successfully handled, returns the earliest and perhaps the largest percentage of profit on the investment of any farm product. It utilizes as food much of the otherwise waste. It thrives and prospers fairly well on refuse, weeds, grapes and clover. It is estimated that an average acre of corn (fifty bushels) fed to eight thrifty 100-pound hogs will increase their weight 600 pounds, and it is claimed that eight like hogs, turned on an acre of good average clover in the spring, will double their weight by fall without any other feed. But for fattening, I have found nothing that is equal to corn. Wheat and oats and milfeed are excellent for young and growing pigs, but they will not put fat on the market hog like corn.

The frequent and sometimes very heavy losses from seeming uncontrollable disease constitute the principal feature of discouragement. My judgment on this may seem harsh, but I think my observation warrants the assumption that 90 per cent. of these losses are attributable to contributory negligence. Any herd, large or small, if permitted, or compelled, to bed on the bare ground will accumulate a large amount of very light and poisonous dust in their bed, of which they inhale at every breath, very soon completely filling the head and lungs with the noxious stuff. The animal begins to cough as the lungs become inflamed, fever sets in, the appetite fails and the inflamed lungs become putrid, and blood poison ends the animal's usefulness by death. All the herd, being subject to the same conditions, it is only natural that all should be similarly affected with like symptoms and like results. And on this basis the disease is pronounced contagious cholera. Complete isolation of the living and very deep burial of the dead, change of clothes when going from one pen to another, a thorough renovation of the entire surroundings and barrels of expensive nostrums are prescribed. All, except most of the nostrums, will do no harm and perhaps as little good. Though decency, even in the hog lot,

is desirable, cleanliness, a full bed of clean wheat straw every day or two or a clean board floor to bed on, will render all else superfluous. Constipation is also an evil that must not be permitted to become seated or chronic. When threatened with this forerunner of fatality, feed laxatives and tonics. Observe closely the natural habits of your animals, study their likes and dislikes and cater to their wants. Feed regularly and liberally but not excessively.

Get your market animals ready for the market at the earliest possible age, and when ready, sell.

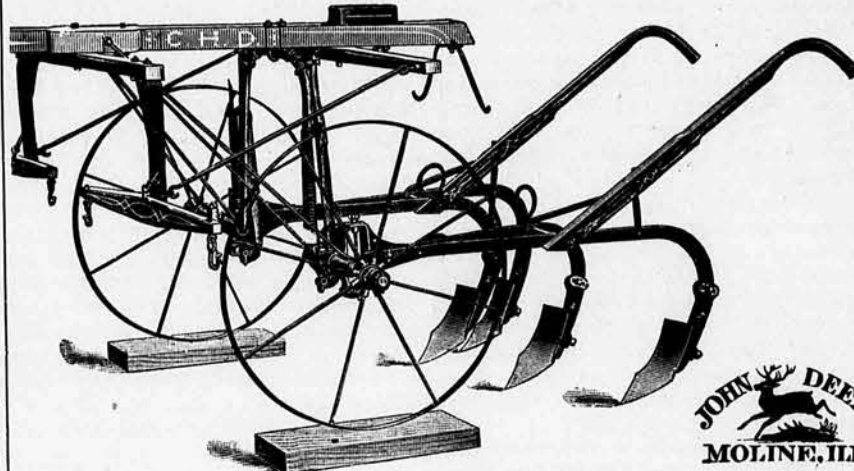
Government Report of Farm Animals.

Under date February 14, 1895, the Statistician of the United States Department of Agriculture makes a report, from which the following is taken:

HORSES.

The census of 1890 gave the number of horses for the census year at 14,969,467. The Department returns of January preceding the census enumeration made the number 14,213,837, which, with the numbers added by natural increase up to June, the month of the census enumeration, brought the Department estimates to a very close approximation to the count of the census.

The estimates of the Department for 1891 showed a decline from the census figures of 1890, i. e., from 14,969,467 to 14,056,750. From these figures, the number advanced in 1892 to 15,498,140, an increase of 1,441,390. In 1893 the estimated number stood at 16,206,802, in 1894 at 16,081,139, a decline of 125,663. This year, 1895, shows a still further decline, the estimates showing



NO. 71 C. H. D. CULTIVATOR.

the number for January 1 to have been 15,893,318, a falling off in numbers from last year's estimates of 187,821, or 1.17 per cent. A decrease in numbers has taken place in seventeen of the States and Territories, an increase in twenty-two, while in nine the numbers were stationary.

The heaviest losses occurred in the States of Ohio, Michigan, Indiana, Illinois, Wisconsin, Iowa, Missouri, Kansas and Nebraska. Considerable losses also occurred in the States of New York and Pennsylvania. The Southern States, almost without exception, and the States of Minnesota, the Dakotas, Montana, New Mexico, Arizona, Utah, Oklahoma and Washington are credited with a considerable increase. Prices have declined in all the States and Territories except Massachusetts and Nevada, the increase in the former being \$1.10. The causes generally assigned by correspondents for the falling away in the number of horses are the substitution of other motors in the street-car service of towns and cities, and the failure of food crops and consequent inability to sustain them.

The decline in value is usually attributed to the widespread depression. Horses have declined in price even where their numbers have materially decreased. The better breeds of this animal, such as roadsters and draft horses, have not fared so badly as the commoner varieties.

MULES.

There has been a slight general decrease in the number of mules, the aggregate in January, of 1895, being 2,333,108, against 2,352,231 in the year 1894. The average price of this animal has fallen from \$62.17 in January, 1894, to \$47.55, same date 1895.

MILCH COWS.

The tendency to an increase of milch

cows noted in last year's report still continues, the number in the past year having advanced from 16,487,400 to 16,504,629, an augmentation of 17,129, or 0.1 per cent. The estimated number in January, 1895, was 16,424,087.

The average farm value per head of milch cows for the present year (1895) is \$21.97, against \$21.77, an increase of 20 cents.

The aggregate value for the year is \$362,601,729, against \$358,993,661, January 1, 1894.

OXEN AND OTHER CATTLE.

The decrease in number of oxen and other cattle since the estimate for January, 1894, has been very marked. It amounts to 2,243,952, or 6.13 per cent. of last year's number. The estimate for 1895 makes the number of such cattle 34,364,216, against 36,608,168 in 1894.

Accompanying this considerable decline in numbers, there has been a falling off in the value per head. The decline in the per capita value has been from \$14.66 in 1894 to \$14.06 this year, a decrease of 60 cents. The decrease in the aggregate value is from \$536,789,747 to \$482,999,129, or \$53,790,618.

SHEEP.

The decline in the number of sheep is attributed to many causes by our correspondents. The ravages of farm dogs and wild animals, the low price of wool, the hard times, and scarcity of feed have all combined to bring about the reduction. Many correspondents claim that the sheep are sold at any price in order to save feed. The number on January 1, 1894, was 45,048,017; in 1895, 42,294,064, a decline in number of 2,753,953. The price per head has also declined from \$1.98 on January 1, 1894, to \$1.58 on January 1, 1895, making a falling off in the total value of sheep from January 1, 1894, to January 1, 1895, of \$20,500,343.

The Department's estimate of the wool clip of the United States for the year 1894 was 298,957,384 pounds compared with 303,000,000 pounds in 1893.

HOGS.

The estimated number of swine, 44,165,716, is 1,040,782 less than that of 1894, which was 45,206,498, a decrease of 2.3 per cent. The average farm price of swine is \$4.97 for the year 1895, against \$5.98 January 1, 1894, a falling off of \$1.01 per head. To scarcity of feed and cholera—a disease that has attacked swine quite prevalently in the Western States—may be attributed principally the diminution in number of this animal. The decline in value is ascribed by correspondents mainly to the "hard times."

Going Back to Stock-Raising.

EDITOR KANSAS FARMER:—The very severe winter is broken. The farmers are busily engaged with their spring work. Wheat prospects are way below par; but very few fields show life. But little oats or barley will be sown this spring. A large acreage of corn, cane and Kaffir corn will be planted.

Barber county is surely drifting back to stock again. Thousands of cattle have been shipped here this winter. An abundance of feed was raised last season, consequently all stock is in fine condition.

Some croakers have already announced the destruction of fruit, especially peaches, but, on investigation, should nothing happen later, there will be an abundance of all kinds of fruit. Seedling peaches are all right

Long Life

to leather: Vacuum Leather Oil. 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.

yet. Most of the budded varieties are killed.

The surface of the ground is in fine condition for spring work but the subsoil is very dry and for successful crops we need about a week's rain of the slow drizzle variety. X.

Medicine Lodge, Kas.

Ticks, Lice and Scab.

EDITOR KANSAS FARMER:—Which is the most to be dreaded? How can they be killed? If dipping is the best method of destroying these pests, what can you suggest as a remedy?

In our early experience in the sheep business, as now, these questions were of great import to us. We should have been glad to have some man of experience direct us in these matters, and it is with this thought in mind that we venture to suggest some of our methods in exterminating these pests.

There is no question but what scab is the most to be dreaded of these three well-known parasites of the sheep. We have no doubt that sheep dips were first manufactured for the purpose of killing scab, yet we have no definite knowledge of the fact. Next in its deleterious effects upon the sheep comes the sheep tick, or at least it is more numerous and better known than the sheep louse, which has as yet given but little annoyance to flock masters. The surest and quickest method to destroy these pests is to dip the sheep.

Every farmer or ranchman should examine his flocks occasionally to see if they are not infected with these parasites, for it is surprising to see how rapidly they reproduce themselves.

It is, in most cases, the best policy to have a regular time for dipping, and free yourself from any further uneasiness as to what may happen. For if sheep are thoroughly dipped in some reliable preparation, the parasites which are on the sheep at the time will be destroyed. Of course, if new and infected stock are introduced into the flock at any time, they are sure to contaminate the whole flock and necessitate a repetition of the process. Of late it has been our custom to dip at least once a year. The expense is so slight that we believe the improved condition of the wool and general appearance of the fleece will pay for the outlay, to say nothing of the advantage of destroying the parasites.

HERBERT W. MUMFORD.

Michigan.

FOR RELIEVING THROAT DISEASES AND COUGHS, use "Brown's Bronchial Troches."

A Remarkable Record.

Twenty thousand C. H. D. Cultivators in one year is a great record for a single cultivator. It is very seldom that a really new machine, in the farm implement line, is put on the market, that is one which is very much of an improvement on those already out. When such a thing happens, it is not long before the trade finds it out. It is a matter of history that no farm implement has ever had so great a sale in the first year of its existence as that shown in our illustration. Its sales for the first year, so far as we are able to find out from those who handle them, amounted to nearly twenty thousand. This is a remarkable record. It often happens that, in new machines, defects develop in the field, which makes a first year an expensive one to the manufacturers, but in this case we are not able to discover that any of these machines which were sold last year have been returned defective. The manufacturers of this cultivator are well known and the workmanship which they put in their machines can always be relied upon. It has been the long established policy of Deere & Co., the makers of this implement, to allow but one dealer in a town to handle their goods.

Irrigation.

ALFALFA UNDER IRRIGATION.

EDITOR KANSAS FARMER:—Alfalfa delights in a moist soil and a dry atmosphere, hence its adaptability to an irrigated, arid region. It sends its roots deep into the earth, and if surface moisture is wanting it brings it from below. It can grow during the entire year, as in southern California; or rest six months and grow six months, as in Montana and Idaho. It is successfully grown in the agricultural districts of the entire Northwest, West and Southwest of the United States, and is advancing upon Mexico.

Western Kansas and Colorado (in irrigated districts and in river valleys) boast of luxuriance of growth and perfection of maturity of this crop. Louisiana claims abundant and remunerative returns from its culture. Going abroad we find it in Chili, the Argentine Republic, France, Spain, Switzerland and Italy, and it is now being introduced and successfully grown in Australia.

Its range of usefulness is scarcely less circumscribed than its range of territory. Horses fatten upon alfalfa pasture. They thrive well upon the hay without any grain. With the hay and very light feeding of grain they do full work. Well matured alfalfa hay is the best possible rough feed for dairy cows and is often entirely sufficient of itself. The milk does not grow bitter as is frequently the case in late winter and early spring when other rough feed is used. With a little ordinary dairy food of a more condensed order and plenty of good alfalfa hay the best dairy results are obtained. Beef cattle are sometimes prepared for market without any other kind of winter food and at less expense than upon grain in a corn country. Stock hogs thrive upon alfalfa pasture. One acre well irrigated will keep twenty hogs in good condition seven months in the year.

Alfalfa in bloom is the best of pasture for bees. The apiary furnishes a profitable industry in alfalfa-growing districts. Experts say that alfalfa honey is superior to any other kind, both in appearance and flavor.

I am requested to say something in this article concerning methods of planting. My experience and observation with this plant extends back about eleven years. In that time I have seen many methods of planting employed, and from experience and observation I have learned: (1) That deep plowing always pays. (2) The best time to plant in this latitude is late in March or early in April, just as soon as there is no longer any danger of hard frosts. The young plant is easily killed by freezing. (3) The ground should be well pulverized and the surface made even by a drag. The ground being prepared, the process of seed-sowing is as follows: If barley or oats are to be raised from the same ground at the time the alfalfa is starting, use a drill with a broadcast seeder attachment. Fill the large seed-box of the drill with barley or oats. In the small front seed-box put the alfalfa seed. Set the seeder so as to sow not less than fifteen nor more than twenty pounds to the acre. If the drill is of the right pattern and works well, it will scatter the seed evenly broadcast just before the hose-plows which are depositing the larger grain deeply in the earth. Follow the drill by the drag again, so as to leave a perfectly even surface and to cover all the seed. If the season is favorable and the seed good, you will get a fine stand of alfalfa and a good crop of oats or barley. By irrigating the land immediately after the oats or barley are taken off, you will get a fair crop of hay that will be ready to cut by the last of September.

I have sown the alfalfa by itself and have harvested therefrom the season of sowing two crops of hay—this, of course, under irrigation. By this method the first crop is necessarily, as every farmer will know, more or less foul with weeds.

I have known some cases where alfalfa has been sown in the fall and a good stand obtained, but as a rule spring sowing is much more likely to succeed.

Some farmers who are so situated as to have plenty of water for irrigation contend that deep plowing is unnecessary. I do not agree with them. An equally good crop may be produced from a given number of acres with two irrigations where the ground has been stirred before seeding, to a depth of ten or twelve inches, as with four irrigations where it has never been stirred more than four or five inches.

As stated in the beginning, alfalfa delights in a moist soil and a dry atmosphere. These conditions are most favorable to the production of large and perfectly-developed crops of foliage. Continued wet weather injures the appearance of the plant, causes the growth on stem and leaves of a rust-like substance, and so greatly reduces the quality of the hay produced. Wet weather is not favorable to the production of seed pods, nor to the maturing of good seed.

The production of good seed crops does not require more than half the water that is required to produce a rapid succession of good hay crops. The question is frequently asked by the inexperienced: "Which of the crops of the season should be saved for seed?" The farmer could answer this question if you would advise him in advance as to the character of the season. If the season is to be dry, the first crop is as good as any, for, unlike the red clover, alfalfa does not at first deceive you by a fruitless blossoming. If the season is not unusually dry, it is better to save the second crop for seed. You will get a more abundant growth of seed pods and have a more favorable season for taking care of the crop.

If the seed crop is kept dry from the time of cutting until the time of threshing, the threshed straw makes better feed for horses than any other hay of which the writer has any knowledge. It is a nutritious, fat-producing food. Not washy, not dusty like timothy or red clover or badly handled alfalfa hay. It is also excellent feed for cattle.

Alfalfa should be cut for hay when it is in or has just passed its fullest blossoming. If the ground is irrigated immediately after the crop is removed another crop will be ready for the mower within thirty-five or forty days. At this latitude (Garden City, Kansas,) three and sometimes four good crops are produced from the same field in a season.

Great care should be exercised that the hay should be entirely dry when stacked or placed in the mow. If this is done and it is well protected from rains and moisture afterwards, it will come from the stack or mow in spring almost as green as the growing crop. Even the beautiful purple blossoms will retain their color.

If water was plentiful and crops of seed and hay were sure at prices which have been current for the last ten years, an alfalfa farm in this locality would be better than a national bank. But about these things there is remarkable uncertainty. The river is sometimes dry in spring and the upland farmer loses an early crop. Three years ago a neighbor and myself saw abundant promise of an excellent seed crop in a most magnificent blossoming. Within a week every blossom was cut from its stem by an army of worms. I don't know whether he was the army worm or not, but he might be properly so-called for "his name was legion." The next season the festive grasshopper—not the migratory tribe that came down upon Kansas in 1874-75 like Comanche Indians upon a government supply train, but natives, citizens of the alfalfa districts, born and nursed in the alfalfa fields—climbed upon the stems and grew from infancy to full hopperhood and fattened themselves upon both foliage and seed, and the profits were again cut off. But these disasters do not come every year. A hail storm may now and then prevent a seed crop by cutting off the blossoms. An unexpected rain may bleach a score of tons of hay in the field, but in either case what you have left is valuable, and you always know that you will still have from year to year a succession of crops without plowing or hoeing or sowing of seed, for the lifetime of the plant is yet unknown.

A. J. ABBOTT.
Garden City, Kas., March 9, 1895.

CHEAP IRRIGATED LAND

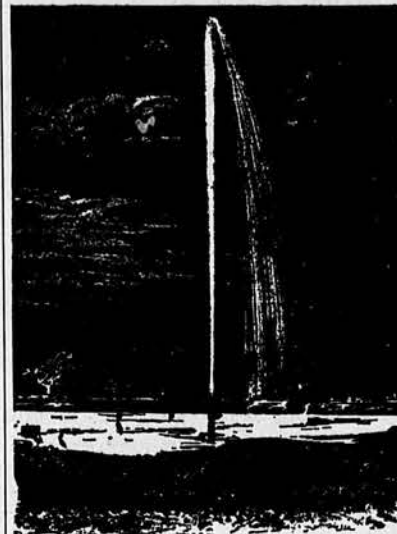
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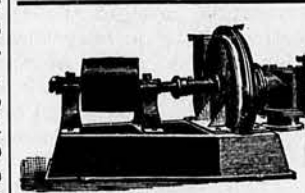
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ARTESIAN WATER EASILY OBTAINED.

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Colorado Potatoes.

EDITOR KANSAS FARMER:—Will you tell me through your valuable paper whether potatoes grown on irrigated ground in Colorado will do well on irrigated ground here? Solomon, Kas. G. A. G.

Kansas irrigators have lacked much of making a success of raising potatoes, whether using Colorado or other seed. The successful production of potatoes under irrigation was, according to Greeley, Colorado, writers, for several years a problem in that State. They finally learned that alfalfa sod, or at least well manured land, is essential. Probably the land should be well irrigated, soaked to a depth of two or three feet, before planting, unless the spring rains have been sufficient for the same purpose. After planting water should never be allowed to overflow the ground where the plants are, but should be irrigated by allowing small streams to pass along the cultivator furrows between the rows. This much those having the largest experience seem to be agreed upon. It is expected that the Kansas irrigators will soon learn to produce potatoes with as much certainty as their brethren in Colorado.

Florida, Cheap.

Special one-way excursions via the Memphis Route (Kansas City, Fort Scott & Memphis railroad), on Tuesday, March 5, and April 2, to all points in Florida, at greatly reduced rates, 1 1/2 cents per mile.

The "Memphis" is the daily through car line from the West to Florida—and the only one.

For maps and full particulars, ask a Memphis Route agent, or
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Kansas City, Mo.

Cured Bilious Fever, Nervousness and Pains in the Heart.

The J. H. McLean Med. Co., St. Louis, Mo.

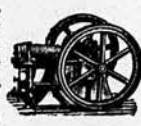
GENTLEMEN:—Two years ago I was confined to my bed for a long time with bilious fever, weakness and fainting spells, and had considerable trouble with my bowels. Nothing helped me until, one day, my brother brought me a bottle of Dr. J. H. McLean's Liver and Kidney Balm. I soon felt better, and by the time the bottle was empty, I was on my feet again and able to perform household work with comfort and pleasure.

Last summer I had another attack, this time with giddiness, nervousness and pains in my heart. I did not waste time trying other medicines, but got a bottle of your Liver and Kidney Balm, which gave me relief at once. I want no other medicine; I know yours to be reliable and safe.

Yours truly, MRS. SUSAN TAMSETT.
Selden, Erath Co., Tex., January 11, 1895.

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For full information, given free of charge, write to S. P. Kretzer, Land and Immigration Agent, B. & O. R. R., Philadelphia.

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Write For Prices.

WINGER'S STEEL WIND MILL

Mechanically constructed and simple. Awarded World's Fair Diploma and Medal. Galvanized Steel Tanks. Flour Mills, Regulators and Grinders.

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Galvanized Tanks, Round, Oblong, and Square.

WINGER'S PUMPING WIND MILL FEED GRINDER

"A MONEY MAKER AND SAVER."

A double grinder with three burrs. Center draft. Can be attached to any make of pumping wind mill.

E. B. WINGER,
532 Kenwood Terrace, Chicago, Ill.

The Family Doctor.

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

Answers to Correspondents.

(NUMBER 38.)

DR. ROBY:—In what form will lycopodium 30x be when used as medicine, and what will be a dose? The reason I ask this question is, I see in last week's FARMER where you prescribe it to a young man, and thinking that his description of his ailment suited mine, I went to our druggist to get it filled. He had lycopodium in powder form, but said he had never heard of it as being put up for medicine alone. I will enclose his question and add that, in addition to the full feeling, belching, etc., I am more or less costive and do not fully digest my food. Also that the full feeling sometimes affects my heart slightly. Do you think that the prescription where you explain it will suit my case? Please answer through the KANSAS FARMER. C. C. G. Pleasanton, Kas.

Lycopodium 30x is put up in the form of powders, or pills, or tablets and liquids. The ordinary druggist is not well enough educated in pharmacy to have a comprehensive knowledge of homeopathic preparations. For over a hundred years they have made a persistent fight to suppress and keep homeopathic medicines from the public. So they cannot be expected to know much about them. Until quite recently, nobody could find any homeopathic remedies in the ordinary drug stores. But gradually, as the new treatment wins its way to public favor in spite of all opposition, the leading, or best educated druggists of the country, are beginning to place these remedies on sale alongside of their cruder drugs, so that now you can find such preparations in all the cities of any considerable size, and it is getting to be a profitable branch of the trade. A dose of lycopodium is what, in powdered form, would lie on a dime. It is probably a good remedy for you.

DR. H. W. ROBY:—For several years, when spring comes, boils grow on the back of my neck. This year two or three large ones grew, then when they were nearly gone a lot of smaller ones came and they pain me so I can neither attend to my work nor sleep at night. Please let me know through the KANSAS FARMER what to do for them, and oblige a constant reader. Belle Plaine, Kas. M.

Take Hepar sulphur 3x, every two hours, until the boils subside, and then a dose a day for two or three months, to prevent a return of the trouble.

DR. H. W. ROBY:—Please answer the following questions: I am fond of onions to eat, but in half an hour after eating there comes up a burning juice from my stomach. What is the cause and cure? Sometimes in winter, and almost daily in summer, there is a burning itch between my toes that makes me feel like tearing the skin off them. There is a peculiar sensation passes up my leg as far as my thigh joint. What is the cause and remedy? Please reply through KANSAS FARMER. A READER. Industry, Kas.

Onions disagree with some people very seriously and such people should not eat them. "What is one man's meat is another's poison." Your feet have at some time been frosted and your foot trouble is in the nature of a chilblain. A wash consisting of a weak solution of agaricus, and very small doses of the same remedy internally, about three times a day, will cure it, very likely.

Gossip About Stock.

One of the successful poultry breeders of Kansas is the railway agent at Pomona, Kas., Robert Crow. He has given the business special attention for several years and now has one of the finest poultry yards in eastern Kansas. Write him for prices and catalogue. His advertisement is on page 1 of this paper.

A recent letter from A. W. Themanson, Wathena, Kas., states: "I shipped a good Poland-China sow to McKinney, Texas, lately. She was bred to Graceful F. Sanders, on March 6. Sent a boar pig to Hoehne, Las Animas, county, Col. Shipped an extra boar pig to Boston, Mass. Kansas breeders are getting to the front. I bought the top aged sow, Black Nell 25276, at the Winterscheidt Bros. and Vansell sale. She is bred to Admiral Chip 7919. I paid \$50 for her, which was the highest price paid that day. I also topped the sale in gilts, paying \$36 for an Admiral Chip gilt, bred to a son of Lizer's Nemo."

A. E. Staley, Ottawa, Kas., writes: "My sales have been fair this winter, considering the condition of the times. While I have not sold any \$250 or \$1,000 pigs, I am still in the business and have been able to fill my orders. The buyers that have visited our ranch have all been pleased with the stock, and with two exceptions we have been able to accommodate them with what they wanted, and we still have some good stock left and feel satisfied that we can please almost any one that wants either

Chester Whites or Polands. We have been making some additions to our herd of Chester Whites in the way of breeding boars, one from J. C. Jay, Mt. Pleasant, Iowa, and one from J. E. Bell, Osage Mission, Kas., and have ordered a gilt of C. J. Huggins, of Wamego, Kas., and am still looking around and will buy nothing but the best in the future. I have also been stocking up in the Poland-China herd. Got one Wilkes boar from Dietrich & Gentry and a top gilt of same. My spring crop of pigs are coming in good shape. Black Mazy has eight and six are extra fine, three weeks old, sired by Ottawa Boy. Moorish Mazy, bred to Riley Medium, is due to farrow in a few days, and then look out for something gilt-edged. Moorish Pride, the three-year-old boar, is still doing service at the head of herd and he shows up pigs that are hard to beat. His last litter, eight in number, out of Mazy 3d, all went to do service and help build up herds in Kansas except two gilts that we will not price."

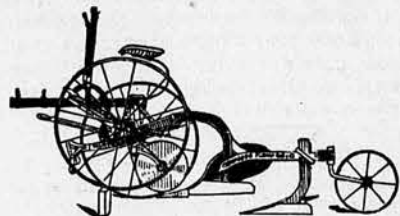
DR. ORR'S BOOK.—Readers of the KANSAS FARMER will be pleased to know that arrangements have been made whereby they can obtain this concise and well nigh invaluable "Farmer's Ready Reference or Handbook of Diseases of Horses and Cattle" in combination with this paper at a slight saving in cost.

The separate prices of these are:
Dr. Orr's Book.....\$1.50
KANSAS FARMER, one year.....1.00

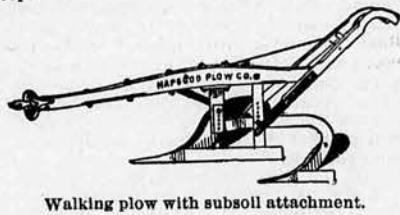
Total.....\$2.50
Two dollars sent either to the Kansas Farmer Co., Topeka, or to Dr. S. C. Orr, Manhattan, will secure both, making a saving of 50 cents.

Hapgood Irrigating Subsoilers.

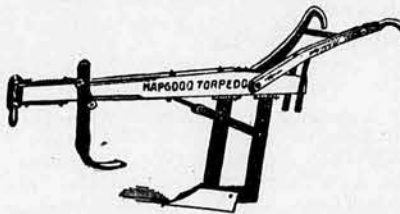
Owing to the universal interest at this time in the West on the subject of irrigation by deep or subsoil plowing, we take pleasure in calling attention to the plan as



The old reliable sulky with adjustable subsoil attachment adjusted to plow ten to twenty inches deep.



Walking plow with subsoil attachment.

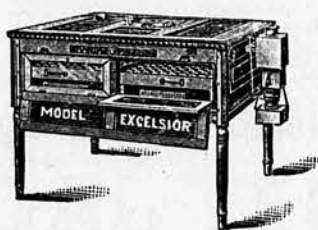


The "Torpedo" is made to loosen up the earth any depth, from six to twenty-four inches, either following another plow or without the head plow.

shown above of the Hapgood Plow Co. for doing this work, especially the running of the subsoil plow behind the regular plow, and doing the work at one operation that is usually accomplished by two, thus saving a man. See their advertisement in this paper.

An Example of American Genius.

"They kept the pig in the parlor," was the eccentricity charged in song against certain Emerald Islanders. This was doubtless "the making of the pig," but a little rough on the parlor. The farmer of to-day can hatch the chickens in the parlor without prejudice either to the parlor or the chickens if he uses the Model Excelsior incubator, for this birch-wood box, with its



highly polished mahogany finish and brass trimmings, makes a piece of furniture handsome enough to stand alongside of the piano. There is certainly a satisfaction in the use of such a finely-finished machine—a satisfaction that deepens with the knowledge that the handsome finish of these machines is an index of the superior materials and thorough workmanship which enter into their construction. Twelve years of incubator building has qualified Mr. George H. Stahl for the production of a machine without a superior in the world. In ma-

terial, in construction and in finish the Model Excelsior meets this expectation; its brass tank and heater and its double regulator are found on no other machines.

As an incubator-builder Mr. Stahl has achieved a unique success. A pioneer in this field he has set the pace in invention and construction. The antipodes and the islands of the sea are using Excelsior incubators; their fame is world-wide. When it is stated that Mr. Stahl is the owner of over sixty patents on incubator construction it will be seen how thoroughly he covers the whole field of invention and how qualified he is to build machines embodying every feature of proved value. Neither words nor figures convey so adequate an idea of his success as does the new six-story Excelsior incubator factory, which is the largest and most completely equipped factory of its kind in the world, and is the handsomest in all its appointments of any manufacturing plant in Quincy, Ill., that great manufacturing center. The best evidence of the success of the Model Excelsior and the business character of its manufacturer is found in its enormous sales. Write him for his catalogue.

The sooner you begin to fight the fire the more easily it may be extinguished. The sooner you begin taking Ayer's Sarsaparilla for your blood disease, the easier will be the cure. In both cases, delay is dangerous, if not fatal. Be sure you get Ayer's and no other.

Seed Corn!

New NEBRASKA IRON-CLAD—made 80 bushels per acre in Nebraska in 1894, without irrigation. A cross between the well-known Golden Beauty and Early Yellow Dent. Sample ear, 10 cents, postpaid. Early Thompson and King of Earlies, 60 bushels per acre, without irrigation in Nebraska. Send for our new catalogue.

DELANO SEED CO., Lee Park, Neb.

POTATOES BIG ONES

By planting our Famous NORTHERN GROWN SEED. Earliest in the world. You can't afford to plant old played out sorts this season. Catalogue free. Local agent wanted.

L. L. MAY & CO., Seedsmen, POTATO DEPT. St. Paul, Minn.

EVERGREENS!

Headquarters in the United States for all varieties and sizes of Hardy Nursery grown evergreens and ornamental trees. Prices the lowest. Six \$5.00 and \$10.00 bargains. Over ten million evergreens and a large stock of other trees. Illustrated catalogue free. I want a good Local Agent.

M. L. Evergreen Specialist, Dundee, Ill.

SEED POTATOES!

Cane, Corn, Oats and Grass SEEDS.

Send for descriptive list and prices. H. T. McCURM, 118 S. Fourth St. - ATCHISON, KANSAS.

100 DAY CORN!

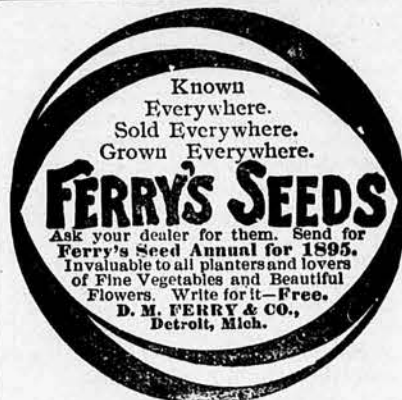
Does not grow so much to stalk, shoots better and matures its ear before hot winds or early drought kill it. Champion White Pearl, Champion Yellow Dent, Improved Leaming, Riley's Favorite and Early Butler Corn does this admirably. Priced below.

Champion W. Pearl. Early Butler. Champion Yel. Dent. Blount's Prolific. Improved Leaming. Dungan's W. Golden Beauty. Ches. Co. Mam'th. Riley's Favorite. Hickory King.

PRICES:—C. Yel. Dent, lb. 50c. postpaid; by express or fast freight, peck \$1.75; ½ bu. \$3; bu. \$5. C. W. Pearl, lb. 30c.; peck 55c.; bu. \$1.55; 5 bu. \$7; 10 bu. \$13.50. Other eight kinds, lb. 30c.; peck 50c.; bu. \$1.50; 5 bu. \$6.90; 10 bu. \$13.25.

Shipped quickly and urgently traced to hurry through. Low freight rates. My seed is extra good and grows well. My catalogue and three samples sent free. I refer to editor of this paper, or if you prefer, send money to First National Bank, Bement, Ill., to be paid over to me if they know me to be reliable.

Address quickly. J. C. SUFFERN, Seed Grower, Voorhies, Ill.



Matthews & New Universal Garden Tools
Nine Styles. Thousands in Use.
Ames Plow Company, Boston and New York.
Sole Makers.



GRAPE VINES.

Largest Stock in the World. Small Fruits. Introducer of unrivalled new Red Jacket Gooseberry & Fay Currant. Catalogue free. Geo. S. Josselyn, Fredonia, N. Y.

Big Book Bargains.

Books at Less than the Original Cost of the Paper.

We have the following special lot to close out for cash, all prepaid to your express office:

Ten sets Americanized Encyclopedia Britannica, full cloth, latest edition, ten volumes; regular price \$21.50, now.....\$11 25
Ten sets same, half morocco, regular price \$30, now.....19 00
Four sets same, full sheep binding, regular price \$28, now.....18 00
One set People's Encyclopedia, four large volumes, half morocco, latest edition; regular price \$32, now.....23 00
Two, The American Encyclopedia of Practical Knowledge, one large volume, full sheep binding, 1,322 pages, fully illustrated.....3 65
Three, Childhood—Its Care and Culture. An invaluable book for the home. 772 pages, fully illustrated, cloth.....2 10
Thirteen volumes Irving's Conquest of Granada, beautifully illustrated, with English cover.....1 35
Thirteen volumes Irving's Alhambra, beautifully illustrated, with English cover.....1 35
One set Grant's Memoirs, two volumes, cloth.....4 40
One Mulhall's Dictionary of Statistics, 632 pages, valuable reference book.....8 25
Seven White House Cook Book, large 8vo, white oil cover.....1 50
Eleven Napheys' Physical Life of Women, cloth, 426 pages, a valuable home book.....1 00
Fourteen Napheys' Transmission of Life, 862 pages of information for women.....1 00
Thirteen sets Works of Abraham Lincoln, two volumes, cloth, Nicolay and Hay edition, regular price \$10, now.....6 25

We have also many choice books for home and school libraries at remarkably low prices.

Who will secure the above prizes? When this lot is sold we cannot fill orders. Send money with order—we will pay the freight. Correspondence asked.

Kellam Book and Stationery Co.

603 KANSAS AVENUE, TOPEKA, - KANSAS.

LIVE STOCK AUCTIONEERS.

J. M. HOSMER, Live Stock Auctioneer, Maryville, J. Mo. Fine stock a specialty. I respectfully solicit your business and guarantee satisfaction. Terms reasonable. Secure Cates early.

F. M. WOODS,

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

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Live Stock Auctioneer, Marshall, Mo. Sales made everywhere. Reference to the best breeders in the West, for whom I have made sales. Catalogues compiled and printed. Terms reasonable.

ELI ZIMMERMAN, Hiawatha, Kansas,

Live Stock and General Auctioneer. Pedigreed and registered live stock a specialty. Write for dates. Sales conducted anywhere in the country. Best of references and satisfaction guaranteed.

S. A. SAWYER, FINE STOCK AUCTIONEER—

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

MAKE MONEY EASY!

GREAT OAKS FROM LITTLE ACORNS GROW.

Why Not Have a Great Oak of Your Own? It is easily within the reach of all. The man with \$20, \$50 or \$100 has precisely the same chance that the man with \$2,000, \$5,000 or \$10,000, as like the mighty chain, is composed of many links. Under our present system our customers compose this mighty chain, when the links are welded together so strongly that success in manipulating the market is made comparatively easy. "The proof of the pudding is in the eating." We are not prospecting; we are retrospecting, telling you what we have already done; and in the face of the greatest financial depression of modern times, when the mighty arm of finance stood paralyzed, pulseless and forlorn, what can we do NOW, on the threshold of unmistakable prosperity? Invest your money—\$20 to \$1,000—and together with the money of many others, which makes it possible for you to have the advantage of large financial backing wherein the risk is reduced to a minimum, while the possibilities of profit are unlimited. We point with confidence to our semi-monthly dividends, which tell a tale of success that must carry conviction with it to the most skeptical. August 15th, 8 per cent. December 15th, 10 per cent. Sept. 15th, 10 " Jan. 15th, 7 " Oct. 15th, 10 " Feb. 15th, 8 " Nov. 15th, 10 " March 15th, 7 " Making a grand total of 124 per cent. in 213 days. What kind of mercantile business could you engage in with equal risk, that yields one-tenth such results as we have already shown. In dry goods, clothing or real estate it would take 12 years to accomplish this result, with all the attendant risks—fire, failure and famine might all overtake you. We have not a single dissatisfied customer. Money can be withdrawn at any time. Profits are sent promptly by check twice each month. Write to us for further information, and we will send you our new illustrated pamphlet free of charge. RICHARDSON & COMPANY, 10 Wall St. (Astor Building), New York.

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 WEATHER PROPHETS.

Round the stove at the village store,
On a chilly night, eat half a score
Of friends and neighbors; they were all
Tillers of soil from spring to fall,
All interested in every way
In the current markets of the day,
In butter and cheese, and wheat and oats,
In fat'ning cattle and wint'ring shotes,
All anxious to hear of the price of rye,
All praying for rain for the ground was dry.

All elderly men were they, and wise
In studying signs, in earth and skies,
Of coming storm or lasting drought,
And these are the ways they found them out:

"A storm is comin'," said Mr. White,
"For the black on the kettle burnt to-night."
"A storm is brewin'," cried Mr. Green,
"For this unfallin' sign I've seen—
My pigs have been makin' nests of hay,
And fixin' things for a rainy day."
"And I," chimed in good Deacon Wright,
"I heard my roosters crow las' night;
I told Jane Ann 'twould surely blow,
Er rain, er hail, er maybe snow."
"There is no doubt," spoke up Squire Brown,
"For 's I was comin' home from town,
The dust kep' rollin' toward the right,
Instid of left; that tells a sight
About a storm that's comin' soon."
Said Jabez Smith, "To-night's new moon
'S a wet one." "Yes," broke in a friend,
"Tis all of that; stands on its end;
It can't hold water; 'twill all run out
Upon the earth without a doubt."
"My dog e't grass," observed John Spoon,
"Some one had heard a screaming loon
And squawking goose. All did their share
To coax the storm from out its lair.
The storm must come, what could prevent?
'Twas passed upon without dissent
By one and all before their flight
To diff'rent homes to spend the night."

The morning came all bright and warm,
Without a semblance of a storm;
Fair weather held for full a week,
And if one to the seers would speak,
The seer would say without a smile,
"It will be dry yet for a while;
That storm 'twas comin'? You git out!
The best of signs fail in a drought."

—Will Templer.

CHARMING LITTLE DEN.

Hints That May Prove of Value to the Girl Who Needs One.

Every girl wants some spot, be it never so small, for her very own. Confidences are not easily exchanged in a room where she is constantly subject to interruptions from the friends of her mamma or her big sister, or where the younger children have the right of way. Some place there must be where she can talk over the last party with her dearest Aminta, or sit and dream of the last dance at that party and of certain sweet, whispered nothings; a sanctum where she can perchance let her maiden fancies overflow in rhymes too sacred for any eye. If this can be apart from her bedroom so much the better. There is often an unused hall room that can be taken for this purpose, and only needs a little ingenuity on the part of the fair owner to make it a very holy of holies.

Such a den has been evolved by a Brooklyn girl, with her great-grand-



A PRETTY CORNER.

ma's brocade curtains for a starting point. The room, a second-story hall room in a wide, old-fashioned house, built when land was something less than thousands of dollars a front foot, was vacant by reason of the fact that the son and heir is away at college. The paper, a pinkish cream and gold, and the woodwork, also of pinkish cream, lent themselves readily to a color scheme of blue and cream, suggested by the aforesaid brocade curtains of an exquisite silk and linen texture and of the most fashionable and delightful shades of blue.

The door leading into the hall was taken from its hinges and one of the wide curtains hung in its place from a pole of cream enamel and gold. In the deep window a seat was fitted and cushioned with blue corduroy; Moorish fretwork was placed across the top, and from this fell a second curtain, di-

vided in the middle and looped back at either side. Close to the glass underneath the shades the window was curtained with sheer white curtains like the rest of the house. On the wall at the right stood a capacious box lounge covered with the brocade. The pillows had washable covers of white linen embroidered with the motif of the brocade in blue Roman floss. In the box underneath some of mademoiselle's party dresses repose at full length.

Opposite, nearly the whole length of the room, stand low book shelves of oak filled with rare and dainty editions of her favorite authors, while the top is used for the display of bric-a-brac and souvenirs of her last trip abroad. On the right of the window as you enter is placed the low bamboo tea table, with its pretty appointments, and at the left is the oak desk cozily littered with writing materials. Two low easy chairs, a work basket and some beautiful etchings and photographs in oak or white and gold frames complete the charming interior.

RELIEF FOR TAILORS.

How to Measure Fair Clients for Bifurcated Garments.

A correspondent writes the following letter to Haberdasher on the absorbing and delicate topic of bloomers:

"I noticed in a late edition of a New York paper an editorial referring to a



lawsuit in which a lady refused to take a pair of bicycle pants because they did not fit. The tailor declared they were according to the measures given him, and he did not take the measures. The article wound up by prophesying a fortune in store for the tailor who could take a lady's measure correctly and not infringe the laws of modesty, or words to that effect. I was surprised, for I know that many old birds in our profession can do that. For the benefit of the rising generation I submit the adjoining formula:

"The acknowledged difficulty in taking the measures for ladies' bifurcated nether garments is how to get the leg seam. By using this method there is, as Mr. Podsnap would remark, 'no occasion to bring a blush on the cheek of a young person.'

"First take the length from point A to the ground, then ask the lady to take a seat on a flat-bottomed chair, and take the measure from C to D; deduct this from the first measure and you have the leg seam, Q E D."

Oil to Cleanse the Face.

Oil, not water, should be used when you really want to clean your face. Learn a lesson from the actresses. If an actress tried to wash with soap and water her nightly make-up from her face she would have no skin to speak of left in a week, to say nothing about a complexion. She never makes any such mistake. She removes her make-up with oil, usually and preferably cocoa oil. And she learns by experience to do the same thing when she wants to get rid of the grime of travel. Oil cleans the skin more thoroughly than soap and water, as you can thoroughly demonstrate after a journey or any such soiling experience. If you don't mind the abuse of your skin for once, just wash your face after the old fashion, as well as you can; then cover it with oil and remove the oil with a soft cloth. One look at the cloth will prove that the soap and water did not get it clean.

Consult a child's instinct in its choice of foods. Of course, that instinct may become perverted, but in a normal, healthy case it should be like that of an animal and as fine as the animal's. If it very ardently desires or detests certain parts of its food great attention should be paid to that desire, or that distaste, and not too much forcing along should be used with them.

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

Royal Baking Powder

ABSOLUTELY PURE

An Excellent Supper Dish.

Panned potatoes make an exceedingly good supper dish prepared as follows: Cut raw potatoes in thin slices, put them in a baking-pan, sprinkling each layer with salt. When the dish is nearly full pour in sufficient milk to cover the potatoes, and bake them in a slow oven about two hours. Stir them occasionally, taking care not to break the slices, and if the milk is reduced more than one-half add a little more, as there should be a good deal of moisture when the process is finished. This mode of cooking gives a peculiarly delicious flavor even to inferior potatoes. —Ladies' Home Journal.

Dainty Conserves of Flowers.

Women can make for themselves some dainty conserves of flowers that are specially recommended as giving a dainty perfume to the breath and lips. They are made from violets or very highly perfumed roses or carnation pinks. Take half a pound of loaf sugar and moisten with rose water; melt the sugar slowly till it reaches the boiling point; have your violet, or rose, or carnation petals ready, and stir them quickly in the liquid, then pour the whole into shallow dishes or pans.

Deafness Cannot be Cured

by local applications, as they cannot reach the diseased portion of the ear. There is only one way to cure deafness, and that is by constitutional remedies. Deafness is caused by an inflamed condition of the mucous lining of the eustachian tube. When this tube gets inflamed you have a rumbling sound or imperfect hearing, and when it is entirely closed deafness is the result, and unless the inflammation can be taken out and this tube restored to its normal condition, hearing will be destroyed forever; nine cases out of ten are caused by catarrh, which is nothing but an inflamed condition of the mucous surfaces.

We will give One Hundred Dollars for any case of deafness (caused by catarrh) that cannot be cured by Hall's Catarrh Cure. Send for circulars, free.

F. J. CHENEY & CO., Toledo, O.
Sold by druggists, 75c.

Valuable Books Cheap.

By a special arrangement with the publishers, we are able to offer to subscribers any of the following named books at 10 per cent. less than the list price. These are new, fresh books, right up to the time, as is sufficiently guaranteed when it is known that they are put out by W. Atlee Burpee & Co., the famous Philadelphia seedsmen. Here is the list:

	Price, postpaid.
"The Beautiful Flower Garden." A delightful book by an artist.....	.50
"Injurious Insects." A valuable book.....	.50
"Selection in Seed Growing.".....	.10
"Onions for Profit." A hand-book based on modern methods.....	.50
"Manures; How to Make and How to Use Them.".....	.50
"Celery for Profit." An expose of modern methods in growing Celery.....	.30
"All About Sweet Peas." Revised and enlarged edition.....	.20
"How and What to Grow in a Kitchen Garden of One Acre.".....	.50
"The Poultry Yard: How to Furnish and Manage It.".....	.50
"How to Grow Cabbages and Cauliflowers.".....	.30
"Root Crops for Stock Feeding, and How to Grow Them.".....	.30
"How to Grow Melons for Market." Compiled from Prize Essays.....	.30
"How to Grow Onions." With a chapter on Growing by Irrigation.....	.30
"Pansies, Poppies, and Sweet Peas." A bright booklet.....	.10

Really Remarkable Family.

On a pretty little farm high up among the hills of Calhoun county, Ala., 1,000 feet above the sea, lives a most remarkable family. Their name is Sadler. The family consists of a brother and four sisters, and the youngest has already turned his ninety-first year. The oldest is several years more than a century old. None of them has ever married. The Sadlers were born in the Old Dominion state. In 1831 the family moved to Alabama and Calhoun county, about fifteen miles east of Anniston. Two years later they became possessed of the property on which they now live, and there erected a log house, which domicile they have since inhabited constantly. Years ago the father and mother died, the former at the age of ninety-one, the latter at the age of seventy-five.

TRULY ASTONISHING.—Miss Annette N. Moen, Fountain, Minn., says: "Ayer's Cherry Pectoral has had a wonderful effect in curing my brother's children of a severe and dangerous cold. It was truly astonishing how speedily they found relief after taking this preparation."

Home-Seekers' Excursion.

April 2 the Missouri, Kansas & Texas railway will sell tickets to all points in Texas at greatly reduced rates. For further information apply to your local ticket agent, or address G. A. McNutt, D. P. A., Kansas City, Mo., 1044 Union avenue, station "A."

When the Kicks Come In

Is not the title of a new song, nor does it refer to the backward action of that much-maligned animal, the mule.

It is a phrase used by the inhabitants of Oklahoma to designate the approaching opening of the fruitful acres of the Kickapoo Indian reservation.

If you wish to find out all about the Kickapoo lands, as well as those belonging to the Wichita and Comanche tribes—where cotton, wheat and fruits will pay handsomely—ask G. T. Nicholson, G. P. A., Santa Fe Route, Topeka, Kas., for a free copy of Oklahoma folder.

CENTROPOLIS HOTEL.

Fifth and Grand Ave., Kansas City, Mo.

A strictly first-class house at moderate rates. Central location. Half block from new million dollar court house and half million dollar city hall. On direct Fifth street cable line from Union depot and stock yards. 225 choice rooms, all newly decorated. Lighted by electricity. Rates, \$2 per day. Rooms with bath and parlors, \$2.50 per day.

E. K. CRILEY & CO., Proprietors.

The cruel knife and burning plaster must go.

CANCER

Cured with the "Balm of Gilead." Thousands of testimonials from people cured. Address

Dr. Castle & Co., Sole Props.
S. E. Cor. 8th & Wyandotte Sts.,
KANSAS CITY, MO.

Rheumatism, Neuralgia, Sciatica, Backache.

ST. JACOBS OIL

SAFE, SURE, PROMPT.

INCORPORATED OCTOBER 29, 1894. LOCATION, 1103-1105 NORTH FOURTH AVENUE.

HOME OF REDEEMING LOVE,

WICHITA, KANSAS.

Object.—To provide a home for penitent fallen women, and to rescue them from lives of shame; to reclaim, educate and instruct them in industrial pursuits, and to restore them, when possible, unto their homes and parents. BENEVOLENT FRIENDS, this institution is non-sectarian and non-salaried—each worker freely doing her part to "rescue the perishing, lift up the fallen and tell them of Jesus, the mighty to save." God is blessing the work and good is being done. Now, we want you to "help just a little" and enable us to do still greater good. The erring daughters must be reclaimed—they are more often sinned against than sinning. The Savior said, "Neither do I condemn thee; go in peace and sin no more." Address RMY, LYDIA A. NEWBERRY, WICHITA, KAN.

The Young Folks.

HANS' OTHER.

[From the German.]

Hans Simple saw a curious thing,
Which ever to him seemed to cling;
'Twas like a man, yet dusky, gray,
And quite like Simple every way.

When in the house he stood at all,
He saw the object on the wall,
And if along the street he walked,
Behind or fore it always stalked.

Hans puzzled grew, and viewed with rage
This ever-present personage,
Finding whatever he might do,
The saucy imp would do it, too.

When Hans would move an arm or foot,
The nunny always followed suit,
And should he then quite still remain,
The other would his step restrain.

This maketh angrier the boy:
"What, rascal, will you thus annoy,
And follow if I stay or go?
Then punishment will I bestow!"

And out he shoots a sudden kick,
The other does the same as quick;
Hans striketh him with lusty blows,
Exactly so the other does.

Upon him Hans in fury leaps,
As far away the other keeps;
Hans springeth backward in his wrath,
The other follows in his path.

Whatever Hans may do or say,
The other by him still will stay;
Hop up or dance, or what he will,
The other imitates him still!

Hans Simple grins at last to find
He cannot leave the chap behind.
You think it very strange, I see,
Pray tell me who the wretch can be!

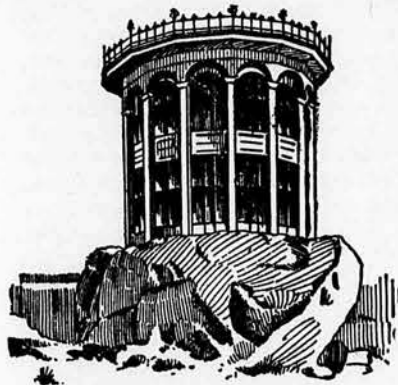
—American Cultivator, Boston.

ROCKING STONES.

California Has Several Worthy of Serious Investigation.

On the summit of a low, rounded hill near the town of Truckee, Cal., stands a rock thirty feet high and twenty-two feet in circumference, with a perfectly level top. On the center of this level surface rests another rock, a fac simile of the other on a smaller scale. To give an idea of the size of the stones, the owner of the ground has built an observatory, two stories in height and circular in form, which stands upon the larger of the two stones and incloses the other. There is ample room inside of this building for several persons to stand, and on the rock, outside, a promenade extends entirely around the observatory. Several peculiarities of these strange stones are worthy of note. Both are heart-shaped; they are identical in position; the apex of each points directly north, and every line and feature of the larger stone is perfectly reproduced in the smaller.

Nor is this the strangest part of the matter. The smaller rock weighs sixteen tons, and is apparently as firm as the everlasting hills. The strongest man may push and tug in a vain attempt to move it, unless he touches a certain spot; but if a child puts his little finger on this spot, with a gentle,



pushing motion, the huge mass of granite begins to rock. The movement is regular and almost noiseless, and investigation proves that the great rock rests on three almost imperceptible pivots, and thus swings clear of its base.

Another interesting rocking stone may be seen near Pala, in San Diego county, where it is regarded with great veneration by the Indians. It is an immense boulder, circular in form, but flat on the upper surface. It rests on three distinct pinnacles, and can be moved only by peculiar, swaying steps on its top.

When set in motion, it will continue to rock long after the effort to move it has ceased, and the grinding, rumbling noise it produces can be heard a mile away, resembling the sound of distant thunder. This strange stone may be made to move in two different directions, according to the movements of the person who starts it. It may be made to swing around on its pivots in a circular

manner, or it may be moved backward and forward, like the rocking of a chair.

So far as is known, these are the only rocking stones in California. Scientists declare that they were caused by water erosions, but some superstitious people believe that they were held sacred by the Indians, while still others aver that they were the altars of a people who passed from the earth ages ago.

LION AND BICYCLES.

Queer Race Witnessed Not Long Ago in an Eastern Town.

The business of exhibiting wild animals occasionally leads to an adventure with some "monarch of the jungle" in the midst of civilized scenes. Escaped elephants, bears and lions have caused great turmoil in American cities before now; but it is doubtful if the curious spectacle of bicyclers fleeing for their lives before a pursuing lion was ever witnessed by American citizens at home until recently near Bridgeport, Conn.

Near that city there is a place of resort called Pleasure Beach, and at this place, on a day in August, a performance by tamed wild animals was to be given. Among those animals was a "royal lion" named Prince—a very large and beautiful creature.

While preparations were being made for the performance, Prince escaped, and rapidly made his way to a race-track where several wheelmen were riding bicycles. Seeing him coming, the wheelmen pedaled with all their might; and seeing them thus taking to flight, the lion pursued them with all his might.

Around and around they went. They dared not dismount and leave the track, for fear the lion would pounce upon them as soon as they were on their feet. Each one had reason to believe that his life depended on keeping out of the beast's clutches.

But the lion gained upon them, and finally caught up with them one by one; but in each case, as the wheelman



gave up with terror, the lion passed him without doing him harm.

Presently the keeper called for volunteers to help him capture the lion. Three or four hundred people were present; but volunteers came forward very slowly. However, an acrobat in a bright red suit offered himself, and then another, and presently four men were engaged in an attempt to wheedle Prince back into his cage.

They succeeded in getting him near the open door; and then the four brave men seized him bodily and pushed him, struggling, roaring and biting, through the door, and closed it upon him. One of the four men, the acrobat in the red suit, was badly bitten in the hand by the furious animal.

A Most Excellent Mother.

Humming birds are very shy and fleet of wing. It is difficult to make their acquaintance. A gentleman who had a rare opportunity to watch a mother bird and the tiny nest which she had built near his room, says that one day, when there was a heavy shower coming up, just as the first drops fell the mother came fluttering home, seized a large leaf which grew on a tree near by, drew it over her nest in a way to completely cover it, then went back to whatever work she had been about when the coming storm disturbed her. The watchers at the window wondered why the leaf did not blow away. They found it hooked to a tiny stick just inside the nest. When the storm was over the mother came home, unhooked the green curtain she had so perfectly put up and found her babies all dry.

Roger and His Hungry Friend.

This is a dog story in which Roger is the hero. The cook noticed in the last ten days that Roger had developed a terrible appetite, and was not satisfied with one bone, but hung around until he got two or three, and then he would start off with them in his mouth. The cook thought he buried them, so he determined to follow him one day and find out what he did with them. He followed him over to the barn, and close to the barn there is an old hayrick with a fence around it, and there in the corner was a poor little miserable dog. He was one with whom we were not acquainted, and therefore called him a tramp dog. He was bleary-eyed and skinny, and so poor that when his tail wagged in appreciation of Roger's bringing him these bones, his joints would make a noise like a sandpaper rustle. Roger would put down the bones in the front of the dog, make a little dog talk, and sit down and watch the poor little tramp commence to eat them up.

William as a Smuggler.

Some years ago a tame, long-haired goat formed part of the regular crew of a passenger steamer on service between an English port and a continental one, says London Notes and Queries. After a time the customs authorities discovered that it wore a false coat, many sizes too large for it. The goat's own hair was clipped very close; round its body were packed cigars, lace, etc., and then the false coat was skillfully put on and fastened by hooks and eyes.

How Tom Explained Himself.

"What on earth are you doing with that little watering can, Tom?"

"Spwinkling the baby's head so's his hair'll sprout."—Harper's Young People.

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Under reasonable conditions. Do not say it cannot be done. 'Till you send for 120 page catalogue of DRAUGHON'S PRACTICAL BUSINESS COLLEGE, Nashville, Tenn. This college is strongly endorsed by bankers and merchants all over the United States, as well as foreign countries. FOUR weeks by Draughon's method of teaching book-keeping is equal to TWELVE weeks by the old plan. Special advantages in Shorthand, Penmanship and Telegraphy. Cheap board. Open to both sexes. Thirty-six States and Territories now represented. Write for 120 page catalogue, which will explain "all." Address J. F. Draughon, President, Nashville, Tenn. (Mention this paper.) N.B.—This college has prepared books for "Home Study," book-keeping, penmanship and shorthand.

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Wanted, for office work, on salary, in most every county in the South and West, a young lady or gentleman. Those from the country also accepted. Experience not necessary; in fact, prefer beginners at a small salary at first, say to begin, from \$30 to \$60 a month. Chances for rapid promotion good. Must deposit in bank cash, about \$100. No loan asked; no investment required. It is a salaried and permanent position. (Strictly office work.) The enterprise is strongly endorsed by bankers. Address P.O. Box 433, Nashville, Tenn. (Mention this paper.)

One of my children had a very bad discharge from the nose. Physicians prescribed without benefit. After using Ely's Cream Balm a short time the disease was cured.—A. O. Cary, Corning, N. Y.

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and medicines, but without benefit. I had begun to get discouraged when I received one of your almanacs and read of a case in it that was similar to mine, cured through the use of Dr. J. H. McLean's Liver and Kidney Balm. I concluded to try it. The result was entirely satisfactory as I began to improve immediately. I used, in all, three bottles, and was able to go to work once more, and ever since I have enjoyed the best of health. I would be doing less than my duty if I failed to give you these facts, so that others may hear of the wonderful powers of your Liver and Kidney Balm.

Yours truly,

H. J. BRECHT,
CEDAR GROVE, WIS.

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Scott's Emulsion of Cod-liver Oil and Hypophosphites is so useful in all wasting diseases, such as Consumption, Anæmia, Scrofula, Rheumatism, Bronchitis, and Marasmus and Rickets in children, is because it furnishes to the depleted blood the fattening and enriching properties of the oil, and to the bones and nervous system the phosphorescent and vitalizing properties of the Hypophosphites, which together nourish the body arrest the progress of the disease, and commence a process of repair that finally means restored health and vigor.

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FARMS WAY DOWN.

I have excellent farms in Rooks county, Kansas, for sale, way down below their value. Will sell on contract for one-tenth down and one-tenth yearly, or will give deed if one-fourth or more is paid down. Write for particulars and state how much you can pay down and how you want the balance of payments. I also have several unimproved farms in central Nebraska and one large body of over 7,000 acres. I have a finely improved ranch of 1,440 acres in Rooks county, Kas. Any or all of above will be sold very low, or might exchange part or all of it for good improved property in Chicago or vicinity. Address

B. J. KENDALL,

601 Masonic Temple, CHICAGO, ILL.

A Blacksmith.

May 22d, 1894.

The Dr. J. H. McLean Medicine Co., St. Louis, Mo.

Gentlemen: About three years ago, while working at my trade as blacksmith, I was taken down with Kidney disease. I suffered severely with pain in my back and general weakness, and was compelled to quit work. I was treated by several different doctors, who filled me full of drugs and medicines, but without benefit. I had begun to get discouraged when I received one of your almanacs and read of a case in it that was similar to mine, cured through the use of Dr. J. H. McLean's Liver and Kidney Balm. I concluded to try it. The result was entirely satisfactory as I began to improve immediately. I used, in all, three bottles, and was able to go to work once more, and ever since I have enjoyed the best of health. I would be doing less than my duty if I failed to give you these facts, so that others may hear of the wonderful powers of your Liver and Kidney Balm.

Yours truly,

H. J. BRECHT,
CEDAR GROVE, WIS.

KANSAS FARMER.

ESTABLISHED IN 1863.

Published every Wednesday by the

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OFFICE:

No. 116 West Sixth Avenue.

SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.

An extra copy free fifty-two weeks for a club of six, at \$1.00 each.

Address KANSAS FARMER CO.,
Topeka, Kansas.

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Electros must have metal base.

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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.

If you want one of the finest magazines published, send us \$2.25 for KANSAS FARMER and *Cosmopolitan*.

One dollar and sixty-five cents will pay for the KANSAS FARMER and the twice-a-week New York *World*. Everybody should read.

We want our readers to secure for us thousands of new subscribers for the KANSAS FARMER and we will pay well for such work. If you will get up a list, write this office for liberal terms.

An irrigation plant with a capacity of twenty acres is in course of construction at Chapman, Kas., by Stephens & Marsh. A link-belt elevator will raise the water from the Smoky river at the rate of 2,000 gallons per minute. It is expected that the area irrigated will next year be increased by 200 acres.

Many of our subscribers desire a daily newspaper. In renewing your subscription it is well to note the fact that we can furnish you a year's subscription to KANSAS FARMER and daily Kansas City *Star* for \$4. Or, KANSAS FARMER and daily Leavenworth *Times* for \$3. The amount for both papers to be sent to this office.

The KANSAS FARMER has in stock about 2,000 Spray Calendars, giving concise directions as to time and manner of spraying every kind of fruit. They are very neat and are suitable to hang up for convenient reference. Any one sending a two-cent stamp to pay for mailing and postage will receive a Spray Calendar free.

An important irrigation convention was held last Saturday, at Eureka, at which it is said the farmers resolved that they would individually and severally construct storm-water reservoirs and collect the run-off to be used in the irrigation of their lands. It is difficult to understand how the example of Geo. M. Munger, whose large reservoir is only a few miles from Eureka, can be other than contagious. The Eureka meeting was addressed by Mr. Munger, E. R. Moses, of Great Bend, Judge J. S. Emery, of Lawrence, H. R. Hilton, of Topeka, and Prof. Haworth, of the State University.

The advantages of a very early maturing corn are appreciated by all who have suffered the effects of a hot, dry August. The objection to most of the very early maturing sorts is that the grain is hard and flinty. A sample of a very fine yellow dent corn, called "Large Early Yellow Rose," said to have matured in eighty-six days last year, and to have produced seventy-five bushels per acre on sloping land, and as high as eighty bushels per acre on second bottom, has been left at this office. The corn was planted on the 2d of May and was matured by July 27. This corn is advertised in the "Two-cent column" of this paper.

A GREAT IRRIGATED FARM.

"It's all right to irrigate a garden or a truck patch, or an orchard, but you can never make it pay to irrigate common field crops." This is the off-hand decision of the man who has never seen irrigation practiced and who is little inclined to get out of the rut in which his father drove to a living—perhaps to a competence. But the writer last week visited an irrigated farm, near Englewood, in Clark county, Kansas, which completely banishes all doubts as to the practicability and the profit of irrigating corn, wheat, barley, oats, Kaffir corn, alfalfa and even prairie grass.

Col. C. D. Perry, formerly a dealer in real estate and a contractor and builder in Chicago, finding that his health demanded a change, came, a few years ago, to Kansas, and, with the business scent of the Chicago man, selected and bought the best thing in the way of real estate then to be had at reasonable figures, and, whether intentionally or not, he followed the advice of the old lady in the "Hoosier School Master," to "git a plenty while you're a gittin'," and bought 10,500 acres of land on the southern edge of Kansas. Better fortune than he knew attended his purchase. He then had no thought of irrigation. But on making the survey he has found 3,500 acres of his domain to be irrigable, and he has "appropriated" water from the Cimarron river, three miles south of the Kansas line, sufficient to irrigate 5,525 acres. A portion of this water is sold at the low rate of 50 cents per acre to settlers in the Indian Territory along the line of the ditch.

The Cimarron river, which in some places is usually dry and in others horribly salty, here is a fine stream of fresh water. The lay of the land just here is also peculiar. Col. Perry is able to bring his ditch almost at right angles from the river. Indeed, its general course is a little up stream, and it reaches Mr. Perry's land in such way as to be available to the best of it. This ditch has a total length of eight miles, is sixteen feet wide at top, ten feet wide at bottom, and carries water two feet deep. Its fall is thirty inches per mile, and it is estimated to carry fifty-five cubic feet of water per second, and, as before stated, to irrigate 5,525 acres. On Mr. Perry's farm only about 1,200 acres of the 3,500 irrigable have yet been irrigated. This consisted last year of 60 acres corn, 140 acres wheat, 300 acres alfalfa, 80 acres oats, 60 acres Kaffir corn, 200 acres barley and the balance in orchards, trees, etc.

These crops were, for the most part, fed on the ranch, and the exact yields of only a portion of them are known. One twenty-acre piece of wheat has in three years averaged thirty-three and one-third bushels per acre, or 100 bushels per acre for the period. Clark county has not been thought to be a corn country, and yet, without experience in corn-growing, and for the unfavorable season of 1894, Mr. Perry made forty bushels per acre. He is positive that with plenty of moisture at the roots there are no terrors for corn in the hot winds. Irrigated barley has made eighty bushels per acre on alfalfa sod. All grains produced were of exceedingly fine quality except the corn, which, as in all frontier production, was damaged both as to quality and yield by the corn worm. A large part of the products of the ranch was fed to cattle at a fine profit, and Mr. Perry unhesitatingly asserts that he can produce cattle feed cheaper than it can be produced by dry farming anywhere.

There is no way to learn the art of irrigation so well as by doing it. The next best is seeing it done by an intelligent and experienced irrigator. For this purpose the writer made a trip to Englewood. Col. Perry says that had he known, when he settled upon the ranch, what he has since learned by experience, he would to-day be \$75,000 better off. But his great ranch is free from mortgage and he is glad to give the advantage of his costly experience to those seeking information. He does not attempt to hide the evidences of mistakes made, although he evidently does not enjoy their contemplation as much as the triumphs of his later work.

While procuring an adequate supply of water is the first requisite, and leading it upon the highest parts of the land is the second, yet the third—the proper distribution of the water over the land—is the essential, and demands, more than either of the others, the skill of the expert in the preparation of the land. In order to properly present this little understood branch of the work the writer procured from Col. Perry diagrams of the distributing systems of two of his fields, as actually prepared according to the methods which enable a man to water twenty to forty acres per day. These will be presented in the KANSAS FARMER as soon as we can get them engraved—by next week it is hoped.

The management of such an enterprise as Col. Perry has established on the southern border of Kansas is sufficient to fully employ the energies of even a Chicago man. He at first built his residence at one edge of the estate, close to town. But finding that too much time was consumed in going to and returning from his work, he sold the town property and built anew nearer the center of operations. His various buildings present much the appearance of a town. Having had a large building containing much valuable machinery struck by lightning and burned, Mr. Perry has now constructed smaller buildings and more of them. His cattle are provided with ample sheds; he has shops, mill, granaries, machinery-houses, ice-house, milk-house, poultry-house, besides residences for employes. A large wind-mill pumps water into a huge tank which is placed upon the stone milk-house, and from this pipes are laid to every shed and barn and stock-yard where water is to be used, so that when stock is to be watered the proper hydrant is opened and the trough is filled. It is never necessary to move any animal to get it water. These pipes extend also under the yard and to the garden, so that water can be had instantly as wanted.

All grain is ground, all fodder is shredded before feeding. The results of shredding corn fodder were most satisfactory and confirmed the position of those who hold that the lower portion of the stalk contains nutritive value equal to that of the ear and all above it. The cattle eat these shredded stalks without waste, and there is no trouble with sore mouths, as when fodder is cut into small cylinders. Mr. Perry's experience with alfalfa and corn fed together is favorable, but for finishing bees he finds nothing that can displace corn.

INTERNATIONAL BIMETALLISM.

Wall street is speculating as to what the gold interest should demand in case resistance to the remonetization of silver prove no longer effectual. This is a hopeful sign of the progress being made by the silver cause. It indeed seems likely that the gold bugs may become the foremost advocates of "international bimetalism." But their scheme to enlarge the dollar is no longer concealed except to charge it to "other nations." In his latest circular, Henry Clews says:

"They [silver mine owners] consequently insist upon a settlement that would enable them to get a dollar for 371.25 grains of silver [the present silver dollar] while other nations might insist upon valuing the metal at possibly 450 to 500 grains to the dollar."

Suppose that the 500 grain dollar shall be agreed upon. This means an increase of 128.75 grains of silver in the dollar. If all nations throw open their mints to silver at this ratio it is quite possible that it may advance in price until the silver in the dollar shall be worth more than the gold in the gold dollar. Why should gold not then be demonetized or gold enough be put into the gold dollar to make it "just as good as any other dollar?"

It should never be forgotten that dealers in money and owners of securities are forever interested in increasing the value of the unit, just as owners of industrial products and producers of the same are interested in enhancing the prices thereof. The contention is as old as history and will doubtless continue as long as the pres-

ent system of money. It is necessary that the many producers of commodities be on the alert and secure their share of influence in the councils which determine these matters which may make or unmake their prosperity.

EXHIBIT OF AGRICULTURAL MACHINERY AT VIENNA.

The Imperial Agricultural Society of Vienna, under the patronage of his Imperial Highness the Archduke Carl Ludwig, will hold in Vienna on May 4, 5, 6 and 7, 1895, an international exhibition of agricultural machinery. The United States Department of Agriculture has been requested to call the attention of manufacturers of all kinds of machines used in agriculture, horticulture, forestry, dairying, brewing, distilling, etc., to this exhibition and to invite them to send their machines for exhibition.

All exhibitors whose machines need power must supply their own motors, but these will be considered part of the exhibit. The exhibitors will be privileged to sell machines, but none can be removed from the exhibition until its close. The lists for applicants for space from America will remain open until April 15, 1895; those from European countries close March 15. Reception of exhibits will begin April 22 and end April 30. Cards of admission will be issued to the exhibitors and to the persons in charge of the exhibits. Arrangements will be made concerning the entry of all exhibits free of duty and the privilege of transportation over the Austrian railways, and a communication from the Austrian government has been forwarded to the government of the United States requesting free re-entry of all exhibits from this country to the exhibition in case they should not be sold in that country.

The exhibition will be divided into the following departments: Agriculture and agricultural industries; forestry and forest industries; fruit and viticulture; animal industry; dairying; fish culture; veterinary work and horseshoeing; electricity as applied to agriculture and forestry; and an annex for seeds and artificial manures. Under agriculture and agricultural industries there will be exhibits of machines and implements for the preparation of the soil, for sowing, harvesting, threshing, cleaning of seeds, and for the harvesting and preparation of silage; field tramways; motors for driving agricultural machines; hay-saving machines; and machines and implements used in malt houses, breweries, distilleries, in the preparation of lees for agricultural uses, sugar work, vinegar making and starch making. In the department of forestry and forest industries there will be included exhibits of machines and implements for the saving of forest seeds, preparation of the ground, culture of the trees, and wood cutting, forest tramways; motors for driving saws, and machines and implements used in making excelsior, wood pulp and paper; also for the utilization of by-products of the forest. Implements of vine and fruit culture and wine making, also filtration, will be shown. Under the head of stock raising, machines for the preparation of food, self-waterers, food-cookers, and stall furnishings. Implements, hatches, artificial fish-ways, etc., will be included in the fishery exhibit. This partial list indicates that the plan of the exhibition is to include all the departments of agricultural activity.

Transportation, unpacking and setting up is to be at the cost of the exhibitor, but will be under the general charge of the Commissioner of the Committee.

At the close of the exhibition all exhibits must be removed at the expense of the exhibitor by May 14.

All communications should be addressed to the Committee of the Imperial Agricultural Society of Vienna, No. 13 Herrengasse, Vienna.

Every farmer in Kansas, and especially the breeders and stock-raisers, should have the greatest live stock journal in the world, the *Breeder's Gazette*, of Chicago, price \$2 a year. We make a special offer of it and the KANSAS FARMER, both papers one year, for only \$2. Subscribe now through this office.

Progressive Western Kansas.

EDITOR KANSAS FARMER:—The magnificent rain which visited western Kansas a couple of weeks ago, following a series of snowfalls, has put the ground in the best of order, the moisture having penetrated to a depth of fully two feet. Ordinarily our soil is so dry throughout the winter that we note but little effect from freezing and thawing, but this time Jack Frost has done a full share toward pulverizing the clods, and our farmers, who have been busily plowing for some days past, are turning up a soil as moist and mellow as ever delighted the husbandman anywhere.

A considerable addition has been made to our acreage of winter wheat since the aforesaid rain, it having been proven by past experience here that Turkey wheat put in as late as the 1st of March has done as well as that sown the previous fall.

Throughout our portion of the Arkansas valley, there will be large additions to the alfalfa area. In fact, there will be the most significant developments along all lines of agriculture yet witnessed in any year since the settlement of this part of the State.

The spring crop of new irrigation windmills—the "Johnny-jump-ups" of the plains—is already largely in evidence, and the number of irrigation plants will be greatly increased.

The more enterprising of our small farmers have their onion seed planted, have cabbage and tomato plants above ground in hot-beds, and long rows of other hot-beds ready for putting down hundreds of bushels of sweet potatoes. These will go in from the 20th to the 25th of this month. With anything like good success, Garden City will have great quantities of sweet potato plants to sell at less than a dollar per thousand.

There will be a considerable increase of the area devoted to fruit trees and small fruits, as well as to vegetable and seed-growing.

While the farmers out on the uplands, away from the river, are generally recognizing the necessity of having at least a small irrigation plant for the purpose of supplying the home table, wheat, sorghum, Kaffir corn and barley will be among the most important crops grown on such lands.

Our county was one of the first and most emphatic in declining "seed grain" and all other sorts of outside "aid," and we are rejoiced to see that at least a dozen of our western Kansas counties had the pluck, the spirit, the self-reliance and self-respect to repudiate the whole infamous "seed grain" demagoguery.

Unless all signs and precedents fail, western Kansas will make rapid progress this year. There is the right feel in the air and people know better what to do and how to do it to succeed here than they did. J. W. G.

Garden City, Kas.

Experience With Potatoes.

EDITOR KANSAS FARMER:—I see in the FARMER some articles about mulching potatoes. Perhaps my experience in that line of farming would be of some use to some of your many readers.

To prepare the ground I begin the year before planting. In this dry country it is necessary to catch and hold all the moisture we can get, and to do this I plow the ground where I want to plant my potatoes in June, then let it be. I do not work it any more that season, so as to let the weeds grow. These weeds will catch all the snow and make the ground wet for a spring crop. When I get ready to plant potatoes, which is in April for early and May for late planting, I take my two-horse plow and plow the ground good. Then I harrow it, and then I use the same plow to furrow the ground out that I plowed it with, being careful to not let it run too deep. I run the furrows about three feet apart. Next I drop my potatoes in the furrows, about twenty inches or two feet apart, and cover them with a hoe, not more than one or two inches deep. When I see signs of the potatoes coming through the ground, I run over them (the way they are furrowed out, so as not to fill the furrows and cover the potatoes any deeper) with a light har-

row. As soon as this is done I put on as coarse straw as I can get, and cover the ground four or five inches deep. This ends my work with the potatoes until I dig them.

In raising potatoes by mulching, I get a much better quality and a bigger yield. In 1893 I raised thirty-five bushels of fine potatoes on one-eighth of an acre. Last year I dug forty bushels from one-eighth of an acre, and we commenced to use from them in July and were not sparing of them. The bugs have not bothered my potatoes when they were mulched, but when they were not mulched the bugs would eat all of them if not cleaned off. In 1893 and 1894, where I did not mulch the potatoes were not worth digging.

I do not plant potatoes where they were the year before. I have found that I get a better potato by changing to another piece of ground. Where the mulch has been for a year the grub worms are very thick and they bite the young potatoes and cause them to be scabby. Where I have had mulching on the ground, I plant my melons, squashes, pumpkins, etc. I raised as nice melons last year as I have seen at any time, and they were much better flavor than melons raised by irrigation.

I do not wish to say anything that would cause any one to think I am not a believer in irrigation, for I do think irrigation will be the redemption of this country, and I am going to irrigate this season. There is a great deal of work attached to irrigation, and it certainly looks reasonable that if we can raise a larger quantity and a better quality with less than half the labor it is worth trying at least. There is much talk about the water waste in this country and how to catch and hold the flood water. In my opinion there is one other question more appropriate and of more value, and it is to hold all the straw we raise. What I mean by this is not to burn or destroy it unnecessarily. We sometimes have a flood crop and it is just as necessary to hold it as it is to hold the flood water. Hundreds and thousands of good straw stacks have been burned in this country, which, if they had been stacked well and cared for, would be of great benefit to stock during these years of scarcity, and it does no harm to land to spread straw over it. I would like to have my farm covered an inch deep with straw. J. E. CARR.

Oakley, Kas.

Plant More Apple Trees.

EDITOR KANSAS FARMER:—At the Douglas county horticultural meeting, held in Lawrence last Saturday, March 16, a plea was made by the Secretary, Samuel Reynolds, for planting more apple trees, which the society endorsed and instructed the Secretary to send a copy of the same to the KANSAS FARMER for publication. Here it is:

A PLEA FOR INCREASING OUR APPLE ORCHARDS.

1. Because many of our old orchards are decaying or dying out, and unless they are soon replaced we shall be unable to supply the demand for this fruit.
2. The increase in population and the growing demand for more fruit as an important factor in our diet, call for an extension of our apple orchards to meet these growing demands.
3. The increased transportation facilities, both by rail and water, enabling us to ship to new and distant markets, is another argument in favor of increasing our orchards.
4. The large buyers always look for their supplies where the largest orchards are grown, and where they are always willing to pay more than where the fruit is scattering, thus assuring the largest growers the highest price.
5. The product of a good large apple orchard is an important factor in a farmer's income and makes up largely for the failure of other crops.
6. Trees are cheaper now than they may be for many years to come, and the Kansas soil is now in excellent condition for planting and we have good, honest nurserymen all around us, who strive to maintain a good reputation, therefore plant more apple trees.

SAMUEL REYNOLDS,
Secretary.

Any of our subscribers who are about to renew subscription will find something interesting by reading the advertisement of "Samantha at Saratoga." If you have already renewed your subscription it will tell you how to get the book at the reduced rate.

Faulty Fruits.

EDITOR KANSAS FARMER:—Each year should mark improvements in our homes, as in our characters. The home should be our ideal of beauty, thrift and contentment. We should strive each season to add something of interest and look forward to its development. There is no way to do this with less expense and more far-reaching results than the judicious selection and planting of trees and shrubs. They attain age, beauty and worth as the seasons go, and are a source of pleasure, where their absence breeds most of the causes that induce people to leave the farm or home. There are trees and plants adapted to every locality, and such should be selected with care. In this selection experiment stations should direct attention, also discourage such trees and plants as are known to be unsuitable. Nurserymen could and should lend a hand, but often in their zeal trees and plants are recommended which they know are unfit. Among these is the Japanese wineberry. It is pictured and puffed to sell plants at a good price, while it cannot produce anything but leaves and disappointment to the planters. These plants I have had growing for six years and never enough berries, if sold at \$1 each, to pay the cost of plants. They are reported to give like results over a large area of country, and it is safe to let it alone. Another of similar lack of value is the tree blackberry. It is no more a tree than any other, no more fruitful and not larger than the Snyder. The trifoliate hardy orange is more hardy than the tropical fruitful orange, but not hardy enough to stand the Kansas climate. The Otahite orange for pot culture is not as was promised. They seldom bloom, and it is safe to not plant them unless you enjoy disappointment. Now, while you are asking what to plant, let me suggest to plant the Kansas raspberry. It is a seedling of the State, able to cope with all its changes of climate and soil. It is a success in Texas, Minnesota and Wisconsin. From the Pacific to the Atlantic it has been in competition with all other kinds grown and yet stands peerless. In blackberries, the Early Harvest is a good early; Snyder, Erie and Minniewaska for late. For hardy desirable shrubs plant snowball, purple fringe, Japan quince, spirea Van Houttei, deutzia Pride of Rochester. In trees, the elm is grand, if good specimens are selected. They are without a fixed habit of growth, of all shapes, hence select erect, thrifty trees. The soft maple, sugar maple and Norway maples are all hardy and make fine trees. The white or green ash (the native kind) and honey locust are fine trees, especially for the dry regions of the West. All yards should be well sodded and kept clean of weeds, tools and stock. A. H. GRIESA.

Lawrence, Kas.

Raising Sweet Potatoes.

EDITOR KANSAS FARMER:—As the time is approaching for planting, please give instruction through the FARMER for sprouting and raising sweet potatoes. We have so much trouble here in getting plants when the time comes for setting them out, that the farmers can better afford to sprout than be subject to so much waste of time in running after plants and then get poor ones. Haddam, Kas. F. E. ERTLE.

[The above inquiry was referred to Prof. S. C. Mason, of the Agricultural college.—EDITOR.]

In reply to the above inquiry I will say that the difficulty most often experienced in sprouting sweet potatoes is that of having the potatoes rot from too much moisture and lack of ventilation.

A grower of a dozen years experience proceeds as follows: During the latter part of March a pile of good horse stable manure is built up to prepare it for the hot-beds. This should contain enough to make a layer a foot deep under the frames needed to hold the potatoes, and should be thoroughly shaken over and piled in a high, compact pile. If not moist enough to start into fermentation readily, it should be well wet down. In a few days this will become well heated through, and will be steaming all over the pile. It should then be thoroughly forked over, mixing the dry and moist parts well

together, so as to make it of uniform texture, and built into another pile. In a few days more it ought to be hot and steaming throughout the whole mass. It is now ready for the last piling, upon which the frames are to be set. Some prefer to make a pit the size of the frames, into which the manure is transferred, but it answers an equally good purpose to place it on the level ground. A convenient size for the frame is six feet wide and as long as needed to accommodate the quantity of potatoes to be used, spread out in a single layer. Having decided upon the size of the frame, set stakes for a pile a foot larger than the frame in all directions. Build the manure a foot deep upon this bottom, carefully shaking it over again and tramping it down thoroughly and evenly. This last point must be attended to faithfully if the heat is to be even and constant.

These are precisely the instructions for any hot-bed, only that a foot and a half or two feet of manure should be used for an earlier bed for forcing vegetables or for early tomato or cabbage plants.

A partially-spent hot-bed out of which early plants have been moved will do quite well for sweet potatoes. The frames may be built of any rough boards, six feet wide, a foot wide on the front side and eighteen inches at the back, to give a slope, or they are often made a little wider and given a double pitch roof of about one-third rise. Cheap ducking or prepared plant bedding-cloth, which is sold by seed houses at about 10 cents a yard by the bolt, will make the covering. The pile and frames should be banked up around the outside with straw or manure. A couple of inches of earth are put in the frames and above this the same of sand. The potatoes should not be put in the bed until the heat has subsided to about 65° or 70° at night, then they are bedded in the sand about as closely as they will lie and not touch.

The largest potatoes may be cut lengthwise and laid in the sand, cut surface up. Enough sand is then added to a little more than cover the whole. If the sand is ordinarily moist no water should be given till the sprouts begin to appear, when they should be watered lightly and the water increased as they grow. The covers should now be left off during the warm part of the day, and closed as soon as it begins to be chilly at night. Many plant-growers on sandy soil find no difficulty in bedding the potatoes in the natural sandy loam, but unless it is very sandy, bedding them in pure sand is much the safer plan. S. C. MASON.

Manhattan, Kas.

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The opening of two Indian reservations in northeastern Utah to settlers opens up over three and one-half million acres of fine agricultural and stock-raising land for home-seekers.

The Uintah and Uncompahgre reservations are reached by the only direct route, the Union Pacific system, via Echo and Park City. E. L. LOMAX, G. P. & T. A., U. P. system, Omaha, Neb.

"Among the Ozarks,"

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

Horticulture.

THE FIVE BEST GRAPES FOR KANSAS.

By Prof. S. C. Mason, State Agricultural College, read before the annual meeting of the State Board of Agriculture.

The request of your Secretary that I would say something about the best five grapes for Kansas was made, I strongly suspect, not so much with the thought that I could recommend a list of five varieties that surpass all others in value, as with the thought that the five grapes that the Kansas farmer can be induced to plant and care for will be of greatest value to him and his family.

Why this delicious and wholesome fruit is not grown on every farm where corn is grown is a problem that all my acquaintance with Kansas farms and farmers has not yet enabled me to solve. Were I to make the statement that grapes are as easily raised as corn, it would doubtless be received with doubt if not with actual derision by the average Western farmer. But let a young man, fresh from the vine-clad hills of western New York, take up work upon a Kansas farm. Place him in command of one of those marvelous combinations of a trotting sulky, a right and left hand stirring plow and a seed drill, known as a corn lister, and give him a quarter section of Kaw river black bottom land to experiment upon; or mount him on the latest thing in the way of a check-row planter, tell him to follow that line of steel wire and grape-shot across an unknown sea of freshly-harrowed prairie soil and have plenty of faith that his corn will come up, three to the hill, in nice straight rows each way, two hills for every clack of the machine. Follow this with a month's experience with a hog trough bottom side up behind a cultivator for listed ground, and then ask him how this compares with grape-raising. If he does not furnish the opinion that grape culture is one of the primitive industries as compared with scientific corn-raising, then it is my treat—to the grapes.

Grapes may be grown upon almost any soil but a wet and badly-drained one. They will even produce a fair crop upon a soil too stony and poor to raise the proverbial "white beans." Vines should not be planted too near old orchard or shade trees, which are liable to sap too much of the moisture and by their shade prevent the proper ripening of the fruit, if you have a better place. If not, by all means plant them there. They will do the best they can and afford you many a basket of fruit you might feel too poor to buy. If you can spare a piece of good ground, good enough for a garden, near the house and in sight of the living-room windows, let this be devoted to the vineyard. I speak of having it near the house, for a great part of the comfort of having your own grapes is derived from the privilege of walking out among your vines and picking an early bunch here and there as your fancy and appetite may prompt. Again, as to having the vineyard in sight of the house: A properly-constituted horticulturist will derive much pleasure from sharing his choice fruit with his neighbors, more especially with his neighbors' children. If the vineyard is too far away and out of sight, he may be deprived of this privilege, and stepping out with a basket on his arm and the benevolent purpose in his heart to gather a basket of grapes for neighbor Jones' tea table, find that there are grapes for neither the neighbor's table nor for his own.

Once having decided to plant a few vines, the worst battle is over. The only thoroughly hopeless ones in horticultural work are those who never plant. The time to plant is in the spring, as soon as the ground is nicely warmed up. The time to decide what you will plant is now, right away, before you get out of the notion.

Now, this does not mean that you are to give an order to the first tree-peddler that comes along, at a dollar a vine, or eight dollars if you take a dozen; though I candidly believe that you had better pay this price than not to plant. For the standard and well-

tried sorts which I propose to recommend, there are plenty of reliable growers who will sell you first-class one-year-old vines at from \$2 to \$5 per hundred, and strong, fine two-year-old vines at from \$3 to \$6 per hundred. The two-year vines are what I recommend, as they will start off more strongly and come into bearing enough sooner to more than make up for the difference in outlay. While a dozen vines is a good start, and the planting of that many should be commended, yet a hundred is none too many for a generous family supply, and unless other fruits are grown in abundance the good housewife will readily know how to take care of all their product.

If your ground is ordinarily level, it is better to run your rows north and south, eight feet apart, setting the vines ten feet apart in the row, giving a chance to spread the canes out five feet on either side when fully grown. If your vines are planted on a piece of strongly sloping ground, it is better to run the rows on the level around the slope, this arrangement enabling you to more readily prevent the heavy washing of the soil. The holes should be dug broad enough to enable all the small roots of the vine to be spread out fully. Prune away all damaged or bruised roots, and prune the top back to two or three buds. Set the vine but little deeper than it grew before; cover the roots with fine, moist earth and press it firmly. This is of great importance. The packing of fine earth well around the fibrous roots enables them to take hold readily upon the soil and make a vigorous growth.

A good stake should be driven to each vine, and the young canes as they grow may be caught up to this to keep them out of the way. Tomatoes or some such garden truck may be raised between the rows the first year. If the vines make a strong growth, they will be ready for the trellis the next year, otherwise it will be best to prune them back to two spurs of two buds each, and train them again to the stake the second season.

Give clean cultivation, and pinch back the tips of the longest canes in the summer, if they are inclined to get too far from home.

For construction of the trellis good sound posts should be selected, of wood that will not soon decay. If you have cut down an old Osage hedge, or can get the posts from a neighbor who has, these are the very best. But secure durable material, as the trellis is to stand fifteen or twenty years, and it pays to build well at the start. Set the posts twenty feet apart, or one to every two vines, and space them so as to divide the distance between the vines. The end posts should be extra strong and deeply set, then brace them thoroughly, taking care not to have the brace too short and too high on the post, as the strain will tend to lift the posts out if you do. No. 12 smooth galvanized wire is the best for a trellis. Use three wires, the first twenty-two inches from the ground, and the others sixteen inches apart. It is well to bore the end posts and run the wires through. Staple them to the other posts, taking care not to drive the staples down closely enough to bind. Some device for tightening the wires should be attached at one end of the row, if the trellis is a long one; though simply drawing the wire through the hole till it is tight and twisting around the post will answer the purpose. The best material for tying up the canes that I know of is wool twine. This is sufficiently large and soft not to cut the vine, and strong enough for the purpose. Binding twine has been found rather too sharp, and cuts off quite easily upon the wires.

If the vines are rather young and small, two canes about three feet long will be all they should carry. At a year older, or with stronger vines, four canes may be put up, two on either side. Nothing is gained, however, by crowding young vines or allowing them to bear too much fruit while young and weak.

When well grown, or say the third year from setting, five or six canes may be saved, arranged in a fan-like manner upon the lower wires.

The pruning of vines is, to the be-

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ginner, the worst problem of grape-raising. With the tangle of vines found on the wires at the end of a good year's growth, it is not strange that one feels at an utter loss to know where to begin or what to take. No fixed rule can be laid down, easy as the different systems may appear on paper.

Each vine must be given a little separate study. While a glance will show the expert what to do in each case, it will pay the beginner to take a little time to it. The natural thought is that the vine will be ruined by such severe pruning, and the tendency is to leave too much wood rather than to remove too much. I have seen very few vines injured by over-pruning.

The time to prune is any time from the falling of the leaves in autumn till the sap begins to stir in the spring. A pair of shears good enough for the work on a few dozen vines can be bought at any hardware store at from 50 cents to \$1. If the vines are old, with large, old canes that should be removed, a pruning saw should also be provided.

With a well-defined plan in mind of what sort of a vine you want to leave when pruned, take a good look over your first vine to see how nearly this plan can be carried out. Remember that the bearing wood, as it is called, is the young wood of the past season's growth. From the buds on these canes will push branches, next spring, which will set one, two, three, or even four, bunches of fruit near the base, and then continue to grow as a vine. What you want for bearing wood is a strong healthy cane, with firm, well-ripened wood, and sound healthy buds. According to the age and strength of the vine, you want from two to six of these canes, two to four feet long, as well placed for fan-shaped arrangement as you can get them, and starting from the main vine as near the ground as can be selected.

The stronger growth in grape vines always tends to the top, hence if you select your best canes regardless of position, many of them will be high up, and you will be working your bearing wood further away from the ground and would soon have it beyond the trellis entirely. Decide upon the canes you wish to leave, begin at the base of each, clip it clear of all tendrils and branches out to about four feet, or less if the wood is not well matured, and cut it off. Leave two or three short spurs of two buds each near the center at the base of the vine, to produce renewal canes for next year. When this is done your pruning of the vine is completed. The rest of the task is simply to clear the vine and trellis of useless canes. No, your vine is not ruined, and do not allow your wife or anybody else to make you think it is.

The prunings should be carefully gathered and burned, what you do not want to make cuttings of. There is a short, cylindrical, black beetle, dignified by the name of *Amphicerus bicaudatus*, which becomes a serious vineyard pest in some localities, working also on apple and some shade trees. Its work may be recognized by a round hole bored in the axil or forking of a branch. These beetles are harbored in old grape trimmings, and hence the importance of burning them.

In tying up the canes they should be put on the two lower wires for the most part, and fastened in a somewhat curved position, rather than carried out straight. This slightly obstructs the flow of sap, and counteracts the natural tendency for the strongest growth to be made from the upper buds on the cane, while the lower ones suffer or do not start at all.

People who have seen our experi-

UR invited to send for my latest price list of small fruits. Half million strawberry plants, 300,000 Progress, Kansas and Queen of West raspberry plants. B. F. Smith, Box 6, Lawrence, Kas. Mention this paper.

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Apple trees, 2 and 3 years old, strong, \$5 per 100; \$45 per 1,000. Concord Grape, \$1.25 per 100; \$10 per 1,000. Asparagus, 2 year, strong, \$3 per 1,000. Strawberry plants, 50c per 100; \$5 per 1,000. Cherry and Blackberry, \$3 per 1,000. Apricot, 15c; Peach, 10c. Pear, 20c each; Plum, 15c. Hardy Hybrid Perpetual Rose, 2 year, strong, 15c each, \$1.25 per 10. Climbing Rose, 2 year, 15c; per 10, \$1. Thirty Greenhouse or Bedding Plants, \$1—all different. Plants by mail or express. H. H. KERN, Manager, Bonner Springs, Kas.

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27th year. Have for sale a complete assortment of fruit trees, especially of the leading commercial sorts. Also making a specialty of extra hardy peaches, Crosby, Bokara, etc., 23 deg. below zero and a crop. For circulars and prices address the proprietors.

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ment station exhibit of grapes at State and national fairs have often remarked on the fresh appearance and perfect bloom of the bunches and wondered how we could save so many of them from the birds. Enclosing each bunch in a No. 2 manilla grocery sack held in place by a pin will usually accomplish the result, though occasionally the birds become sharp enough to find out what is in those sacks and will pick their way through. This bagging of the bunches tends to retard the ripening a little and so prolong the season. It does not cost much, and a few hundred bunches enclosed in this way will help out the family supply wonderfully.

Having taken all this time to introduce my subject, I may as well now come to the point—the five best grapes for Kansas.

At the head of the list I should place the grand old Concord, the "grape for the millions." Mr. E. W. Bull, of Concord, Mass., did more for his country when he originated this variety of grape than did many a statesman whose name the people cherish. By all means plant the Concord if you have only one variety.

Very close to this comes the Worden's Seedling, daughter of the Concord. A few days earlier, a little better bunch and a distinct flavor are the distinguishing points. Whether it will prove to have the all-round staying qualities of its parent is yet to be found by longer trial, but its present record is good.

The most desirable white grape, all things considered, I believe to be the Hayes, or Francis B. Hayes, as it was first named. This also is a Concord seedling, entirely hardy, of pleasing appearance, delicate flavor, ripening a little earlier than the Concord, yet keeping its quality and firmness a long time. A late white grape, one of the very latest, is the Rommel's Etta. This possesses a strain of the Riparia, or common wild grape blood, mingled with that of the Labrusca, the species to which the Concord family belongs. This variety also possesses the hardiness, vigor, and productiveness which I deem essential to this list. Its flavor is well marked, and though not of the choicest, is yet very palatable. It is chiefly on account of its lateness that I give it a place here in preference to some others.

My fifth shall be a variety comparatively little known, the Woodruff, or Woodruff Red. This had its origin near Detroit, Mich., and it is claimed as a Concord seedling also, a statement which I am a good deal inclined to doubt. If this be true it is the first and only red Concord seedling on record. The vines are good growers, hardy and abundant bearers, not having failed in the five years we have had them in bearing, and producing three heavy crops. The bunch and berry are both very large and showy, of an attractive bright red color. This is not entitled to first place in flavor, yet it is so good that we have never had any left on our hands. In fact, it is about as eagerly bought as any sort in our list of 150 varieties. When bagged, these bunches retain their flavor and appearance a long time.

After all, this part of my task, the naming of the best five varieties, is the least satisfactory part of my undertaking. Once we get beyond the Concord, there are a good many other hardy sorts of nearly equal merit to choose from, and I think I shall have to fall back on my original statement that the five best grapes for the Kansas farmer are the five that he can be induced to plant as he feels confident that by the time the first five are in full bearing, he will be such a lover of grapes as to test others for himself.

Poultry That Pays.

Chicken raising is regarded by many as a hazardous undertaking. The element of doubt is removed when you use the proper methods. G. S. Singer, of Cardington, Ohio, produces as reliable incubators and brooders as there are on the market. These products are remarkably cheap, some brooders being only \$5. Mr. Singer has received forty first premiums, and has in his possession more than four hundred testimonials from enthusiastic patrons. Address G. S. Singer, Box A, Cardington, O.

In the Dairy.

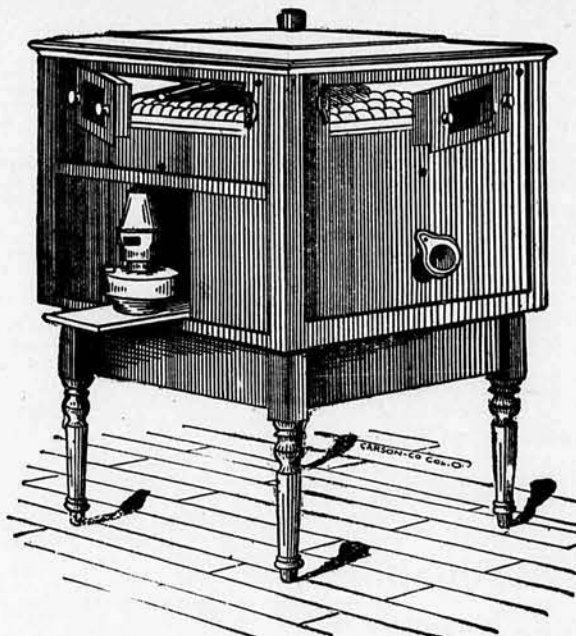
Conducted by A. E. JONES, of Oakland Dairy Farm. Address all communications Topeka, Kas.

Oleo Not Wanted in Alabama.

We had the pleasure of stating, a few weeks ago, that Nebraska had concluded that "hog butter" had run its course in that State, despite the intimidations and threats of the stockyard dairymen of Omaha. The Legislature wisely concluded that the dairy interests were paramount to all others, and enacted that oleomargarine must not thereafter be put before consumers as butter. And now comes Alabama, with a similar law. We give the sections bearing on the subject:

SECTION 1. Be it enacted by the General Assembly of Alabama, That no person by himself or his agent or servant shall render and manufacture, sell, offer for sale, expose for sale or have in his possession with intent to sell, or serve to persons, guests, boarders, or inmates in any hotel, eating-house, restaurant, dining car or boarding-house, or public or private hospital, school or penal institution, any article, product or compound made wholly or partly out of any fat, oil or oleaginous substance or compound thereof not produced directly and at the time from unadulterated milk or cream from the same which shall be in imitation of yellow butter produced from pure, unadulterated milk or cream from the same; provided, that nothing in this act shall be construed to prohibit the manufacture or sale of oleomargarine in such manner as will advise the consumer of its real character free from coloration or ingredients that cause it to look like butter by having it stamped with its true name.

SEC. 2. Be it further enacted, That whoever violates the provision of section 1 of this act shall be guilty of misdemeanor and, on conviction, shall be punished by a fine of not less than \$20 nor more than \$100.



GEO. S. SINGER'S INCUBATOR.

In looking over the Southern agricultural papers it is quite noticeable that more and more attention is being given to dairying. The possibility of successful dairying in the South is no longer a question since modern appliances and better methods in the manufacturing and handling of dairy products have changed the order of many things. With the latest appliances, temperature becomes a less important factor. Quite recently we noticed the theory put forth that the moist air of the South has some advantages over the drier air of the North, which in a measure, overcomes the latter's advantage of a lower temperature. The boundaries of the dairy district seem to be widening every year and it will not be long before the South will be in no mean place in dairy progress. The low price of cotton, the failure of some of the fruit crops, and a general tendency to more diversified farming are some of the factors in this movement.

Since rigid laws have been enacted in the North against the manufacture and sale of imitation butter and cheese the South has been the favorite dumping-ground for the surplus of this stuff. In an interview with Armour & Co., a short time ago, they admitted that the largest part of their sales were in the Southern States, Colorado, Mexico and Arizona.

We hope to have the pleasure of noting that other Southern States have followed Alabama's lead in this matter, and that all of them have entered into a combine to banish filled cheese and oleo from their markets.

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are attracted and their trade held by dealers and painters who know their business. Neither can afford to be ignorant. They know these brands of White Lead (see list) are genuine, and reputable dealers sell and practical painters everywhere use and recommend them.

For colors, use the National Lead Co.'s Pure White Lead tinting colors. No trouble to make or match a shade of color. For pamphlet and color-card—sent free—address

NATIONAL LEAD CO.,
1 Broadway, New York.

Dairy Farming.

A Michigan dairyman, at an institute, summed up the reasons for dairy farming in the following cogent manner:

1. That it is the business upon the farm that permits the most absolute control over conditions of production and distribution of product; hence the most profitable.
2. It is the highest art of farming, because it combines all other lines and gives greater opportunity for executive and manufacturing skill.
3. It is most free from irresponsible

PAY FOR PLEASANT WORK easily secured through an early application for Local Agency to sell the **DAVIS CREAM SEPARATORS** to Farmers and Dairymen. One style was shown in last number of this journal. Another will soon be pictured out. Meanwhile, write for Handsome Illustrated Book Free. DAVIS & RANKIN BLDG. AND MFG. CO., Sole Manufacturers, 240 W. Lake St., Chicago.

WILL YOU distribute Circulars and samples for us? We compensate, traveling, salary and expenses to travel. Send stamp. ADVERTISING BUREAU, 467 6th Ave., NEW YORK CITY.

THOS. B. SHILLINGLAW, Real Estate and Rental Agency, 115 East Fifth St., Topeka, Kas. Established in 1884. Calls and correspondence invited.

FREE SPRAY PUMP to one person in each place. We mean it. If you mean business and want agency send 10c. We will send a complete pump that will do the work of a \$10 spray. A. SPEIRS, P. 54 North Windham, Maine.

LIGHTNING WELL MACHINERY WORKS. All kinds of tools. Fortune for the driller by using our Adamantine process; can take a core. Perfect Economical Artesian Pumping Rig to work by Steam, Air, etc. Let us help you. THE AMERICAN WELL WORKS, Aurora, Ill.; Chicago, Ill.; Dallas, Tex.

SMOKE YOUR MEAT WITH KRAUSERS LIQUID EXTRACT OF SMOKE. SEND FOR CIRCULAR. E. KRAUSER & BRO. MILTON, PA.

ONLY 10% ABOVE ACTUAL COST. Baby Carriages & other styles ranging in price up to \$25.00. Fully warranted for 2 years. Shipped on 10 days trial, freight paid, no money in advance. Send and Receive Catalogue from \$1.60 prepaid, and ship direct from factory at only 10 per cent. above actual cost. Highest references as to our financial responsibility. Cut this out and WRITE TO-DAY for our handsome catalogues. Address: OXFORD MFG. CO., Furniture Dept. T-71342 Wabash Av., Chicago.

POTATOES \$2.50 a Bbl. Largest growers of POTATOES for Seed in America. The "Rural New Yorker" gives one of our early sorts a yield of 748 bushels per acre. Prices dirt cheap. Our great Seed Book, 144 pages, and sample 14-day Roadkill for 6c postage. JOHN A. SALZER SEED CO., LaCrosse, Wis.

PRICE \$33.00 TO FARMERS. Our Complete Line of IMPLEMENTS at wholesale rates. No middle man's profit, you get it. Farmer agent wanted in every town. No risk, no trouble, good pay. A catalogue sent Free will explain. Write to HAPGOOD FLOW CO., Alton, Illinois.

Kansas Tannery. ESTABLISHED IN 1889.

Does a general tanning business, including robes, rugs, etc. Tanning Galloway hides for robes a specialty. First-class work, reasonable prices. All kinds of leather in stock—best quality. Have you any oak bark? Good prices paid for it. Write me. M. C. BYRD, Lawrence, Kas.

THE DAVENPORT AUTOMATIC POTATO CUTTER & PLANTER

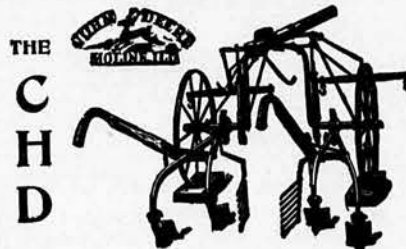
It marks, furrows, cuts, drops and covers all in one operation. It cuts the potato the same as if done by hand. It leaves the field with its work done complete. The only perfect potato planter made. Send for catalogue free. DAVENPORT & PRINCE, DOWNER'S GROVE, ILL.

Broke the Record

No Cultivator ever had such a remarkable run the first season. Sales nearly 20,000 in 1894

and this year will be greatly increased. The O. H. D. is simply the best Walking Cultivator ever made and as yet has no imitators. It sells at sight. For sale by one dealer in a town. See it before you buy. Write us for illustrated circular.

Deere & Co. MOLINE, ILL.



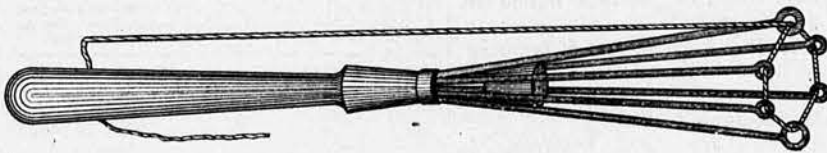
Jones' Pig Forceps.

Our illustration shows one of the most serviceable inventions of the time pertaining to the protection and care of brood sows during the process of farrowing. It is the improved "Jones' Pig Forceps," an efficient and simple device which can be successfully operated by any farmer or stock-raiser, and that, too, without the slightest injury to either the parent or the young.

The forceps consist of six spring steel wires, each formed with an eye and brought together in such shape that one end portion forms the handle piece, securely encased as shown in the cut, while the opposite end portions, which have the eyes, are shaped concentrically, diverging from the handle; a cord is secured to the eye of one and from thence is passed about through each eye, and the free end brought back through an eye at the handle end.

Before introducing, the cord is pulled back so as to closely contract the diverging end of the forceps. When introduced, and the end of the forceps come in contact with the young, the sense of touch will indicate to the operator the position of the young. Should the head be foremost, bring the forceps in line with the nose, gently release the cord, allowing the arms of the forceps to expand sufficiently to overreach the upper or lower jaw, then push the instrument in slightly, when, by again pulling the cord, the forceps will grip the nose, lower jaw, or in some cases the head or hind feet. At this stage of the operation, gently but firmly pull back on the cord with one hand steadily and slightly push on the forceps with the other hand and the delivery is assured.

A few words from men who have pur-



JONES' PIG FORCEPS.

chased and are using the Jones' Pig Forceps will bear good fruit, inasmuch as they are well known to our readers, and by "the word of their testimony shall the truth be established." R. S. Cook, proprietor of the Champion herd of Poland-China hogs, Wichita, Kas., says: "No farmer or swine breeder can afford to be without them, as they save the lives of many a good brood sow." J. W. Babbitt, breeder of Berkshire swine, Hiawatha, Kas., says: "Of the many contrivances I have seen for relieving sows when unable to pig without aid, I think Jones' pig forceps the best, and take pleasure in recommending them to all hog-raisers, as the saving of one sow will repay many times their cost." Geo. W. Berry, breeder of Berkshire swine and President of the Kansas Swine Breeders' Association, Berryton, Kas., says: "It works nicely and without injury to the sow or pigs. I believe its introduction among hog-raisers will save much loss." T. A. Hubbard, President of the Kansas Improved Live Stock Association and proprietor Rome Park herd of Poland-China and Berkshire swine, Rome, Kas., says: "As a breeder of thoroughbred hogs for the last twenty years, I think every breeder and farmer should have one of the forceps, for none can afford to be without them." Hundreds of others speak as highly concerning the forceps as do the foregoing, but they will suffice to convince any one of the necessity for such a valuable piece of mechanism being in the hands of every farmer and swine breeder.

The patentee and manufacturer, D. M. Jones, Wichita, Kas., will send them to anybody, anywhere, post free, for only \$1.50. Send for one now and have it on hand, as you may have need for it when that valuable sow begins to farrow. By the way, Mr. Jones is one of the best and one of the most practical farmers in Kansas. He lives on the farm, and to visit him would do any one good, as everything is right up to date, in the very best order, neat and attractive. His orchards and vineyards would be hard to surpass. Write him to-day.

HORACE.

Publishers' Paragraphs.

An astonishingly liberal offer is made this week of one of the best high-class humorous books published, entitled "Samantha at Saratoga." We guarantee that our offer will please beyond all expectations.

Willis Nurseries, at Ottawa, Kas., is an old established nursery that our readers will find quite satisfactory to deal with, as they have good, reliable stock and reasonable prices.

It is with satisfaction that we call attention to the advertisement of the Baldwinville Centrifugal Pump Works, which is commenced with this number. This old standard works has a reputation for reliability and excellence of machinery and for satisfactory performance, which constitutes an assurance to the purchaser of the success of his plant. If you want to pump water for irrigation,

write a statement of your needs to Irvin Van Wie, proprietor of these works, Syracuse, New York.

FARM RECORD.—Our "Farm Records" have been such a splendid seller because of their practical value that our supply is now quite limited. We have a number of the best binding only, which the KANSAS FARMER will deliver to any address for only one dollar.

The Kansas Weekly Capital publishes more Kansas news than any other weekly paper. A free sample copy will be sent on application to THE TOPEKA CAPITAL CO., Topeka, Kas. Or send \$1.50 to this office for KANSAS FARMER one year and also Capital twice a week.

Speaking of sewing machines, there is nothing better made than the "Kansas Farmer" machine, which is not only modern and substantial but has all the latest improvements, and the price is within the reach of every reader of this paper. Look up our great offer and remember that we guarantee satisfaction.

THE UNTERFIERED.—The Topeka Advocate still champions the cause of the 118,000 unterfieri Populists of Kansas and their brothers in other States, yet it talks politics in such an unprejudiced way that it is read by many Republicans, Democrats and Prohibitionists. You can get it for \$1 a year, 25 cents for three months. The Advocate and KANSAS FARMER a year for \$1.50.

AN IMPORTANT IMPLEMENT.—Once the farmer was supposed to toil by the sweat of his brow from sun to sun. But modern invention has shortened and simplified his labors—shouldered the hard part. For

rapid and thorough cultivation of ground we have seen nothing to equal the Planet Jr. all-steel Horse Hoe and Cultivator. It is light, strong and easily controlled by convenient levers. Has attachments for all kinds of hoeing, cultivating and furrowing. Write S. L. Allen & Co., Philadelphia, Pa., for their new and handsome catalogue.

Six Thousand Square Miles of Wealth.

The vast fertile valleys of the two Indian reservations in northeastern Utah, soon to be open to settlers comprise about 3,500,000 acres of the finest agricultural and grazing lands. The direct line to Utah and Uncompahgre reservations is by the Union Pacific system via Echo and Park City. E. L. LOMAX, G. P. & T. A., U. P. system, Omaha, Neb.

The Burlington Route

WILL RUN

LOW RATE EXCURSIONS

TO

ST. JOSEPH, MO.,

FOR THE GREAT

Summer Race Meeting!

July 3d, 4th, 5th and 6th, 1895,

ON THE GROUNDS OF

THE ST. JOSEPH FAIR ASSOCIATION.

This will be the greatest Race Meeting ever held west of Chicago.

Remember Place and Date!

The following are purses and conditions:

PURSES.

No. 1—Two-year-old trotting.....	\$1,000
No. 2—Two-year-old pacing.....	1,000
No. 3—3:00 class, trotting.....	1,000
No. 4—3:30 class, pacing.....	1,000
No. 5—2:35 class, trotting.....	1,000
No. 6—2:30 class, pacing.....	1,000
No. 7—2:28 class, trotting.....	1,000
No. 8—2:22 class, trotting.....	1,000
No. 9—2:20 class, pacing.....	1,000
No. 10—2:17 class, trotting.....	1,000
No. 11—2:15 class, pacing.....	1,000
No. 12—2:13 class, trotting.....	1,000
No. 13—2:10 class, pacing.....	1,000
No. 14—Free-for-all, trotting (All barred).....	1,000
No. 15—Free-for-all, pacing (Robert J. barred).....	1,000

CONDITIONS.

American trotting rules to govern, except as otherwise provided for. Entrance, 5 per cent. of purse, payable the night before race, and 5 per cent. additional from all money winners. Nominators may declare out May 15 on payment of 2 per cent., or June 15 on payment of 4 per cent. of the purse. Declarations void and will not be recognized unless accompanied by the money. Purses divided, 50, 25, 15 and 10 per cent. Distance in all races, 100 yards. All mile heats, best three in five, except two-year-old classes, which will be mile heats, best two in three. Rights reserved to declare off purses not filling satisfactorily, and nominators may transfer such entries to the next eligible class. Any race that may be started and remain unfinished on the last day of the week of the meeting, will be declared ended and money divided according to rank in the summary. Nominations received up to and including Monday, April 15. No money required from starters until the evening before the race. Daily program announced on or before June 15.

W. C. BROWN, President. P. L. CLARK, Secretary.
ST. JOSEPH, MO.

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 1.—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!

RED CLOVER SEED.—For sale by W. T. Orhood, Pauline, Shawnee Co., Kas.

WANTED.—Honest, energetic farmer to develop rich delta farm in northern Mississippi; partly cleared; comfortable buildings. No crop failures. For particulars address C. P. Day, 256 Broadway, New York.

LEGHORN AND LANGSHAN.—Fowls and eggs. YORKSHIRE swine. Prize stock with gilt-edge blood. James Burton, Jamestown, Kas.

THOROUGHBRED POLAND-CHINA HOGS FOR SALE.—Darkness and Wilkes strains. Sows bred to Ideal U.S., by Ideal Black U.S. Wm. Maguire, Haven, Kas.

WHITE HOLLAND.—Is the best turkey. Toms for sale at \$2.50 each by A. P. Ashbrook, Linwood, Kas.

JACKS FOR SALE.—Four choice black proof jacks for sale. Prices reasonable. Theo. Welch-selbaum, Ogden, Kas.

ALTON CITY POULTRY YARDS.—G. W. Bailey, Alton, Kas., breeder of fine White Plymouth Rocks. Eggs \$2 per setting.

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

WHITE PLYMOUTH ROCKS.—Eggs for hatching, from selected birds, \$1 per thirteen; four settings, \$3. Money order office Wetmore. L. C. Clark, Granada, Nemaha Co., Kas.

WANTED.—The "ears" and names of 1,000 Kansas well-makers. Do you want a "Kansas well-makers' convention" this year? "Card" me. H. C. Welty, Topeka, Kas.

FOR SALE OR TRADE.—STANDARD STALLIONS.—Will sell or trade two standard trotting stallions, Hoke 22966 and Lennox 7256. Address S. E. Wheat, Leavenworth, Kas.

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.

EGGS FOR HATCHING.—Light Brahmas, Buff Cochins, Barred P. Rocks, \$1 for fifteen. Buff Leghorn, \$1.50 for fifteen. Toulouse goose eggs, 10 cents each. Mrs. E. E. Bernard, Dunlap, Morris Co., Kas.

VALLEY FALLS POULTRY YARD.—Light Brahmas, Buff Cochins, Partridge Cochins, Black Langshans, White and Barred Plymouth Rocks, S. and B. C. Brown Leghorns, White and Black Minorcas, Silver-spangled Hamburgs. Choice birds, \$1 each. Eggs, \$1 per fifteen. W. B. McCoy, Valley Falls, Kas.

JERSEY FOR SALE.—A fine yearling heifer, sold J. J. Jawn, of excellent breeding, bred to Torquill 2d 24808, is for sale. Address Prof. Georgeson, Manhattan, Kas.

WANTED.—Yellow and white millo maize seed by F. Barteldes & Co., Lawrence, Kas.

FOR ALFALFA SEED.—DIRECT FROM THE grower, address E. G. Jones, Syracuse, Kas.

ABERDEEN-ANGUS BULLS.—Sired by the \$850 Erica Boy and out of imported cows. Two and three-year-olds. Individually very choice. Wm. B. Sutton & Son, Russell, Kas.

PURE ALFALFA SEED.—Correspondence solicited. Price \$3.50 per bushel. L. F. Worden, Syracuse, Kas.

FOR SALE.—Seven head of extra good Poland-China boars ready for service. Address H. W. McAfee, Topeka, Kas.

EGGS.—For setting, from Black Langshan prize-winners, \$1.50 per thirteen. T. V. Codrington, 1701 Hantoon St., Topeka, Kas.

WHITE PLYMOUTH ROCK ONLY.—At Nottawa farm. Eggs fifteen for \$1. Mrs. W. P. Popenoe, Berryton, Shawnee Co., Kas.

FOR SALE.—One black jack, 7 years old. A good breeder. T. K. McGlathery, 602½ Kansas Ave., Topeka, Kas.

BIG CORN.—A farmer near Meriden planted six acres of Early Yellow Rose corn last year, and the result was astonishing, as he harvested between seventy-five and eighty bushels per acre, or nearly 500 bushels. It ripened before the dry spell, is large and early. Orders to Andrew Swallow, at Meriden, Kansas, will receive prompt attention. Price \$1 per bushel, sacked and delivered at depot; less than bushel orders. 20 cents extra for sack.

CHOICE SEED POTATOES FOR SALE.—Yielded 225 bushels per acre last year. Address J. C. Randall, Hamburg, Iowa.

GALLOWAY BULLS.—We have four thoroughbred Galloway bulls, 1 year old, for sale. Geo. M. Kellam & Son, Richland, Shawnee Co., Kas.

IRRIGATION NOT REQUIRED.—Durra corn, proof against hot winds; five bushels from one pound of seed last year. Select seed, \$1.50 per fifty pounds. Limited quantity. Red Kafir corn, extra good, \$1.15. H. Rowe, Hough, Kas.

FOR SALE.—Two black Spanish jacks, for cash or bankable paper. Have used them four years. Address W. B. Clark, Burlington, Kas.

SKILLED ENGINEER, MACHINIST AND BUTTER-MAKER.—With years of experience, whose butter always brings ½ to 1 cent above Western extra, will be open to engagement March 1. Best testimonials from past and present employers. Investigate. W. M. Burgess, Horton, Iowa.

FOR EXCHANGE.—Twelve acres choice garden land, near Topeka. Also a nice four-room cottage and two lots in city. All clear. Want 160 acre farm. John G. Howard, Topeka, Kas.

FOR SALE.—Nice stock groceries, stock of drugs, stock of dry goods, stock of hardware, stock of clothing. Will take some clear land as part pay. John G. Howard, Topeka, Kas.

CHAMPION WHITE PEARL SEED CORN.—Never fails to give satisfaction. Stands drought well, yields 100 bushels per acre, matures quick, no chance for the worm to get in. Price \$1 per bushel, sacked. A. Ostertag & Bro., Tevis, Shawnee Co., Kas.

FARMERS.—If you want a famous Duroc-Jersey or Poland-China at farmers' prices, write D. Trot, Abilene, Kas.

THE SENECA NURSERY.—Has a larger stock of well-grown and better fruit trees, etc., than ever before. Northeastern Kansas had a fair crop season the past year, and we are willing to divide with those more unfortunate in this and adjoining States. Therefore we mark down everything in the nursery at just one-half of our regular prices. Drop a card for prices as reduced. S. J. Baldwin, Seneca, Kas.

TWO-CENT COLUMN--CONTINUED.

SWEET POTATOES.—Sent out to be sprouted on shares. No experience required. Directions for sprouting free. T. J. Skinner, Columbus, Kas.

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

40 POLAND-CHINA FALL OF 1894 PIGS.—Both sexes, for sale, sired by Riley Medium 12806 and Teumseh J. Corwin 10744. Cannot well use the latter boar longer, hence will sell him. E. T. Warner, Princeton, Franklin Co., Kas.

THREE HOLSTEIN BULLS.—A two-year-old, a yearling and one 6 months old. Registered and belong to the Korndyke family. For further particulars write H. L. Liebfried, Emporia, Kas.

SUB-IRRIGATION PIPE.—Do not be disappointed for not ordering 100 feet of ¾-inch galvanized sheet-iron pipe. Cost, \$1.25. Address Alex Richter, Hollywood, Kas.

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.

MAMMOTH YELLOW DENT.—And Hill's Large White corn, \$1.25 per bushel; five bushels \$6; sacks free. James Bottom, Onaga, Kas.

SWEET POTATOES.—Sent out to be sprouted on shares. No experience required. Directions for sprouting free. T. J. Skinner, Columbus, Kas.

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

WHITE W. H. WILLIAMS, TORONTO, KAS., for Comet Sprayer, a triple air-chamber force pump. Throws continuous stream. Agents wanted.

FOR PURE GARDEN AND FIELD SEEDS.—Go to Edson & Beck, 212 East Sixth Ave., Topeka, Kas. Mention the KANSAS FARMER.

SWEET POTATOES FOR SEED.—All leading varieties. Plants in their season. Lowest prices. Correspondence solicited. B. F. Jacobs, P. O. Box 122, Wamego, Kas.

FARMERS WHO WANT FARM AND GARDEN seeds suited to southern Kansas should write to Ross Bros., Wichita, Kas., for catalogue. Their seeds grow.

FOR SALE.—Cash or time, at prices that will pay you to own them even now, five-year-old, sound Standard stallion No. 17830, by Mambrino Boy No. 844; first dam by Alexander No. 491, second dam by Thorndale No. 305, third dam by Ashland No. 47, fourth dam by Young Patriot. Also eight standard mares by such sires as Allerton, Alexander, Railroad, Omoro, Pioneer, as well as twenty two, three and four-year-old fillies by standard sires. Green Coal Co., 532 Kansas Ave., Topeka, Kas.

WANTED.—For cash or exchange, farms, ranches, real estate or merchandise of all kinds. We control large amount of valuable properties for sale or exchange at 1895 prices, for property in Missouri, Kansas, Texas and other States. Send full description of what you have and what you want, but do not include values and thereby prevent sale or exchange. Jno. M. Phillips & Co., 830-831 New York Life Building, Kansas City, Mo.

EGGS FOR SALE.—B. P. Rocks, B. Langshans and S. L. Wyandottes. G. W. Johnston, Marion, Kas.

STRAWBERRY, RASPBERRY, BLACKBERRY and rhubarb plants for sale. J. C. Banta, Lawrence, Kas.

FOR SALE.—SEED CORN.—Royal Dent, large yellow, extra fine, very early. Never fails to produce a full crop of large, sound, heavy ears, even in the driest seasons. Most profitable variety for dry climates. To be sure of a good crop plant only this variety. Only a limited supply for sale. Order early. Say whether to ship by freight or express. Price, \$1 per bushel; ten bushels for \$9. Address P. H. Thomas, Lock Box 455, Wichita, Kas.

STRAWBERRIES.—I have tested many varieties in my eight years experience, but for earliness, lateness and productiveness have had none to equal Barton's Eclipse, Princess and Parker Earle. Twelve plants of either, by mail, 25 cents; 100, \$1. By express, 1,000 \$6, not prepaid. Have Timbrell, Robinson and others. Wm. Brown, Lawrence, Kas.

IRRIGATION PUMPS.—For prices of irrigation pumps used by the editor of KANSAS FARMER write to Prescott & Co., Topeka, Kas.

SEND FOR PRICE LIST OF SURPLUS NURSERY stock, including apricots, quinces, dewberries, rhubarb, lilacs, privets, Japan scarlet quinces, African tamarix, trumpet vines, wisterias, roses, iris, honeysuckles and Savon junipers. I also have a general stock of fruit trees, small fruits, etc. B. F. Hanan, Arlington, Reno Co., Kas.

3,000 BUSHELS SEED SWEET POTATOES! for sale. Ten best kinds. Also plants in their season, at bed-rock prices. Inquire of N. H. Pixley, Wamego, Kas.

BERKSHIRE SOWS.—Safe in pig to imported Lord Comely. Individuality and breeding the best. Wm. B. Sutton & Son, Russell, Kas.

FOR SALE.—The tried and grand breeding boar, Kansas King 8911 S., sired by Dandy Jim 542 S. and out of Broadback (11913). Weighs 700 pounds. He is a desirably-bred hog, extra good in conformation, having broad back and extra good ham. Sunny Slope Farm, Emporia, Kas.

CHOICE EARLY OHIO SEED POTATOES.—Ninety cents per bushel, in barrels or sacks. Yellow and red sweet potatoes, 50 cents per bushel, in barrels. Early Amber sorghum cane seed, 50 cents per bushel, in sacks. Red and White Kafir corn, \$1 per bushel, in sacks. Stowell Evergreen sugar corn, \$1.30 per bushel, in sacks. Early large field corn, yellow and white, 70 cents per bushel, in sacks. Evergreen broomcorn seed, 90 cents per bushel, in sacks. Ground onion sets, \$2 per bushel. Red Wethersfield onion seed, \$1 per pound. All seeds delivered in good order, f. o. b., depot here. Topeka Produce Co., No. 304 Kansas Ave., Topeka, Kas.

ALFALFA SEED. Fresh stock. W. P. Haywood, Lakin, Kas.

Fine blooded Cattle, Sheep, Hogs, Poultry, Sporting Dogs. Send stamps for catalogues 150 engravings. N. F. BOYER & CO, Coatesville, Pa.

AUSTRALIAN Sheep Dip KREASOLE

The purest and strongest in existence. One gallon mixed with 100 gallons of water suffices for 100 to 120 sheep. All insects are destroyed; the health of the animal benefited; the quantity and quality of the wool improved. Pamphlet on diseases of sheep and sample of Dip free to any one who will write F. M. Ironmonger, Importer, 43-45 College Place, New York, N. Y.

HENRY W. ROBY, M. D.,

SURGEON.

Office 118 Sixth Ave. West, TOPEKA, KAS.

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.

LAME MARE.—I have a mare that cut her heel on barbed wire four weeks ago. It has healed up and left a lump about the size of a walnut; she is very lame when she first starts out but gets better after she travels a short distance. What can I do for it?

Nowata, I. T. F. C. B.

Answer.—The irritation has very likely extended to the joint. Make a blister of biniodide of mercury, 1 drachm, and vaseline, 1 ounce, mixed, and apply to the lump and around the coronet once every three weeks, and give the mare complete rest.

SORE HEAD—SWELLED SHEATH.—(1) I have a steer that hurt his head where he was dehorned last fall. (2) I have another one that is swelled around the sheath. What can I do for them?

Burlingame, Kas. J. A. H.

Answer.—(1) Wash out the opening of the head once a day and inject a little of the following: Carbolic acid, 2 drachms; water, 1 pint. (2) Catch the steer and find out what causes the swelling. It may be due to filth. I cannot prescribe without knowing the cause.

LAME MARE—INDIGESTION.—(1) The "Clyde" mare that has the poll-evil got lame in the shoulder on the same side where the poll-evil is. Some days she can walk on it and on others she cannot touch it to the ground. There is no swelling, and I think it is rheumatism. (2) I have another mare, 10 years or more of age, that keeps poor and is hide-bound. She eats grain well but does not care much for roughness.

Larned, Kas. H. C. W.

Answer.—(1) We think it very probable that the lameness is caused by the sore on the head through the connection of a large muscle (levator humeri) that has its origin on top of the head and its final insertion in the shoulder. However, if you think it is due to rheumatism you can give her two drachms of bicarbonate of potassium three times a day for a week. (2) Examine the mare's mouth to see that her teeth are all right, then give, twice a day, a heaping tablespoonful of the following: Bicarbonate of soda, charcoal and gentian root mixed together in equal parts.

LOSING HAIR—OPEN JOINT.—(1) I have a three-year-old colt that is losing his hair. It comes off in bunches but he does not rub much. (2) I have a dog that cut his stifle on the wire fence last fall. The joint is enlarged and the sore runs nearly all the time; he carries it drawn up. Will he ever get well?

Lawndale, Kas. W. A. C.

Answer.—(1) Take corrosive sublimate, 1 drachm; alcohol 2 ounces; water to make 1 pint; mix and sponge over the affected parts twice a week. Do not let the colt get his nose to the part when the medicine is on. (2) The discharge comes from the joint and you will find it very difficult to heal and the joint will most likely be stiff, and the leg may always remain drawn up. Inject the sore once a day with a little of the following: Chloride of zinc, 2 drachms; water, 1 pint. Also clip off the hair and apply a cantharidine blister over the enlarged joint once a month.

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Caustic
Balsam

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The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY DR FILING. Impossible to produce scar or burn. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. E. H. LAWRENCE-WILLIAMS CO., Cleveland O.

MARKET REPORTS.

Kansas City Live Stock.
KANSAS CITY, March 18.—Cattle—Receipts, 4,505; calves, 231; shipped Saturday, 2,250 cattle, 4 calves. The market opened steady all around on good cattle and strong on best butcher stuff. The supply was largely on Texas division. Common grades sold slowly. The following are representative sales:

DRESSED BEEF AND SHIPPING STEERS.
19.....1,490 \$5.50 9.....1,261 \$5.23
1.....1,250 4.75 1.....1,160 4.75
1.....1,100 4.40 20.....1,004 4.15

TEXAS AND INDIAN STEERS.
47 I.....1,253 \$4.65 173 c. f.....1,056 \$4.55
22 cmf.....940 4.55 69 cmf.....1,220 4.55
58 cmf.....1,166 4.55 40 cmf.....1,197 4.35
22 cmf.....970 4.25 46 cmf.....1,063 4.20

SOUTHWESTERN STEERS.
26.....1,272 \$4.00 20.....981 4.25
2.....1,165 \$4.00

WESTERN STEERS.
22.....1,281 \$4.30

TEXAS AND INDIAN COWS.
9 cmf.....813 \$3.65 12 cmf.....550 \$2.80
1 cmf.....1,000 2.80 8 cmf.....845 2.75
1 cmf.....980 2.75 7 cmf.....560 2.50
12 cmf.....815 2.25 30 cmf.....688 1.65

COWS AND HEIFERS.
5.....892 \$4.25 33.....734 \$4.10
25.....800 4.10 1.....740 4.10
1.....1,470 4.00 1.....1,230 4.00
1.....1,210 3.85 3.....560 3.65
1.....810 3.75 1.....990 3.60
27.....714 3.55 1.....660 3.50
1.....510 3.50 2.....1,260 3.50
1.....1,280 3.50 1.....1,060 3.50
1.....1,070 3.25 1.....960 3.25
5.....584 3.25 2.....1,170 3.25

STOCKERS AND FEEDERS.
20.....1,079 \$4.30 4.....997 \$4.15
45.....823 3.87 5.....854 3.85
3.....730 3.65 2.....580 3.30
3.....870 3.25 1.....520 3.25

Hogs Receipts, 3,947; shipped Saturday, 993.
The market was steady. The following are representative sales:

36...284 \$4.57 60...295 \$4.55 60...321 \$4.45
45...313 4.45 69...212 4.45 2...303 4.45
85...220 4.45 78...232 4.45 85...236 4.45
123...234 4.42 74...222 4.42 80...238 4.40
77...214 4.40 52...237 4.40 75...213 4.40
55...224 4.40 60...233 4.40 60...245 4.37
61...184 4.37 41...179 4.35 69...293 4.35
33...251 4.35 67...182 4.30 3...270 4.30
10...166 4.30 63...126 4.30 41...216 4.30
67...186 4.30 101...163 4.27 45...209 4.25
41...148 4.25 90...156 4.23 56...164 4.20
6...145 4.20 30...167 4.17 62...165 4.17
10...146 4.12 93...125 4.10 57...172 4.07
4...137 4.05 78...118 3.95 17...128 3.95
5...122 3.95 10...137 3.95 74...130 3.90
18...120 3.90 10...107 3.90

Sheep—Receipts, 2,514; shipped Saturday, 123.
The market opened active and from 5 to 15c higher. The supply was better than usual. The feeder trade is slow. The following are representative sales:

19.....92 \$4.85 7.....121 \$4.75
204.....98 4.30 9.....106 4.15

Horses—Receipts, 134; shipped Saturday, 38.
The market was quiet as usual on Monday.

Chicago Live Stock.
CHICAGO, March 18.—Hogs—Receipts, 38,003; official Saturday, 14,411; shipments Saturday, 4,800; left over, 1,500; market active; heavy hogs steady, others generally 5c higher; light, \$4.30@4.65; mixed, \$4.35@4.70; heavy, \$4.30@4.75; rough, \$4.30@4.45.

Cattle—Receipts, 14,000; official Saturday, 548; shipments, 688; best steers steady; others weak to 10c lower.

Sheep—Receipts, 14,000; official Saturday, 1,636; shipments, 1,501; best steady; others weaker.

Chicago Grain and Provisions.

March 18.

Wh't—March...

May...

July...

Corn—March...

May...

July...

Oats—March...

May...

July...

Pork—March...

May...

July...

Lard—March...

May...

July...

Ribs—March...

May...

July...

Kansas City Grain.

KANSAS CITY, March 18.—There was a fair demand for samples of red wheat to-day, but it was difficult to find buyers for hard wheat. Bids for the latter were about a cent lower and red wheat was down about 1/4c. Most of the car lots received were applied on contracts.

Receipts of wheat to-day, 19 cars; a year ago, 42 cars.

The demand for wheat is entirely local now, and quotations on the basis of the Mississippi river cannot be given satisfactorily.

Sales of car lots by sample on track, Kansas City: No. 2 hard wheat, 1 car 52 1/2c; No. 3 hard, 1 car 51 1/2c; No. 4 hard, nominally, 50c; rejected, nominally, 49c; No. 2 red, 4 cars 54c; No. 3 red, nominally, 52 1/2c; No. 4 red, nominally, 52c; rejected, 1 car, 51c.

Corn was in fair demand at about Saturday's prices. Not much was on sale.

Receipts of corn to-day, 23 cars; a year ago, 141 cars.

Sales by sample on track, Kansas City: No. 2 mixed corn, 13 cars 41c; No. 3 mixed, nominally, 40 1/2c; No. 4 mixed, nominally, 40c; No. 2 white, 42c bid, 42 1/2c asked; No. 3 white, nominally, 41 1/2c@42c.

Oats were pressed for sale and were a little lower than on Saturday. A good many samples were on the tables.

Receipts of oats to-day, 9 cars; a year ago, 19 cars.

Sales by sample on track, Kansas City: No. 2 mixed oats, 1 car 29c, 7 cars 28 1/2c; No. 3 oats, nominally, 28c; No. 4, nominally, 27c; No. 2 white oats, nominally, 31c; No. 3 white oats, nominally, 30c.

Hay—Receipts, 51 cars; market weak. Timothy, choice, \$8.50@9.00; No. 1, \$7.75@8.25; No. 2, \$7.00@7.50; fancy prairie, \$8.00@8.50; choice, \$7.00@7.50; No. 1, \$6.00@6.50; No. 2, \$5.00@5.50; packing hay, \$3.50@4.50.

St. Louis Grain.

ST. LOUIS, March 18.—Wheat—Receipts, 7,189 bu.; last year, 13,636 bu.; corn, 43,275 bu.; last year, 193,956 bu.; oats, 34,100 bu.; last year, 47,300 bu.; rye, 700 bu.; flour, 6,755 bbls; shipments, wheat, 8,696 bu.; corn, 25,338 bu.; oats, 50,879 bu.; rye, 2,815 bu.; flour, 14,868 bbls. Wheat—Cash, 55c; March, 55c; May, 55 1/2c@55 3/4c; July, 55 1/2c@55 3/4c. Corn—Cash, 42 1/2c; March, 42 1/2c; May, 43 1/4c; July, 43 1/4c. Oats—Cash, 30c; March, 30 1/4c; May, 30 1/4c; July, 30c.

Kansas City Produce.

KANSAS CITY, March 18.—Eggs—Receipts were large. Strictly fresh are quoted at 9c per doz.

Poultry.—The receipts were light. The market continues firm. Hens, 6 1/2c; mixed springs, 7c; small, 9c; roosters, 12 1/2@15c each; dressed chickens, 6@7c. Turkeys, old gobblers, 4 1/2c; young, 5 1/2c; hens, 6 1/2@7c; dressed turkeys, 6 1/2@8c; dry picked hens, good demand (shippers prefer dry picked and will pay better prices than on scalded stock), 8 1/2c; young gobblers, 7 1/2c. Ducks, scarce, firm, 7@8c. Geese, slow; alive, 4 1/2@5 1/4c; dressed, large, 12 lbs. and over, 7@8c. Pigeons, dull, 75c per doz.

Butter.—The heavy supply is dwindling down. Extra fancy separator, 18c; fancy, 16c; fair, 15c; dairy, fancy, firm, 14c; fair, 10@11c; fancy roll, 12@14c; fair roll, 7 1/2c; packing, weak, 5@6c; old, 4c.

Fruit.—Apples, supply good; the market is slow on all grades; standard packed ranged from \$3.50@4.00 per bbl.; others, \$2.00@3.00; best fancy stand, \$5.00@5.50; Jennetings, \$2.00@3.50; winesaps, \$3.50@5.50; Ben Davis, \$4.00@5.00; common varieties, \$2.25.

Vegetables.—Potatoes, the market is firm with higher tendency; ordinary kinds, common, 40c 50c per bu.; sweet potatoes, red, scarce, 25c 30c; yellow, 25@30c; Utah and Colorado, market stiffer; choice mammoth pearl, white, best, 70@75c; No. 2, 6@6 1/2c.

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The Farmer's Ready Reference

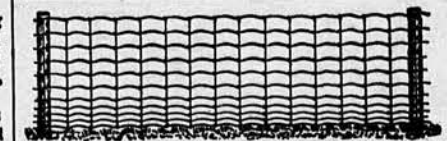
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SENSATION IS

Samantha at Saratoga,

BY

JOSIAH ALLEN'S WIFE (MARIETTA HOLLEY).

THE BOOK was written under the inspiration of a summer season 'mid the world of fashion at Saratoga, the proudest pleasure resort of America, where Princes of the old world, with Congressmen, Presidents, Millionaires, Railroad Kings, and Princes of Commerce of our own great nation with their wives, their beautiful daughters, and all the gayest butterflies of fashion luxuriate in balmy breezes, display their personal charms, costly jewels, exquisite equipages, and revel in

All the Extremes of Fashionable Dissipation.

"JOSIAH ALLEN'S WIFE" is in a vein of strong common sense that is pure and innocent as the prattle of a child, keeps the reader constantly enjoying

It talks of FOLLIES, FLIRTATIONS, LOW-NECKED DRESSING, DUDES, PUG DOGS, TOBOGGANING, etc., in the author's inimitable and MIRTH-PROVOKING style.

OPINIONS

OF

CRITICS.

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The Poultry Yard

NEAT POULTRY HOUSE.

Very Handy and Convenient and Easily Kept Clean.

The accompanying illustrations show a very handy and convenient henhouse. It is located near the kitchen and is so cleanly that the woman of the house can run in and out after eggs or for feeding purposes. It is built of matched siding, running up and down, and the roof is of the same material, with tarred paper on the inside, which makes it very uncomfortable for lice. All the inside fixtures are movable, and monthly during the warm weather

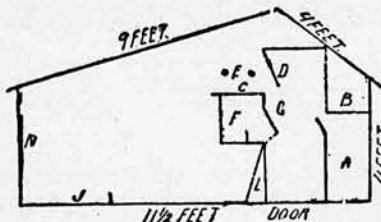


FIG. 1.—CROSS SECTION OF POULTRY HOUSE.

everything is taken out and the whole inside, including the roof, is given a shower bath of lime water and carbolic acid, applied with a spray pump. The roost poles are covered with cloth which is occasionally saturated with kerosene. Near the right, as seen in the diagram Fig. 1, is the entrance door, and a is a bin four feet high and eighteen inches wide, running the whole length of the building, with a hinged lid, for storing droppings. Above this box is a shelf, b, for holding feed, shells, gravel, etc. At the left of the door is a tight platform, c, one foot beneath the roost poles, e, for catching the droppings. At d is a hinged door opening on a level with the platform, through which the droppings are shoveled once a week into bin a. The nest boxes, f, are one foot square and fifteen inches high, leaving an eight-inch passage for the hens to enter the nests; a small crack is left at the top in the back, so that the light strikes the eight-inch alley, but not the boxes. Each nest is a separate box, and when a hen becomes broody the nest box is pulled forward close to the drop door, thus shutting up the alley and locking biddy on her nest. As the nests are all alike, it makes no difference which nest she chooses to brood in—it can be moved to the end and thus does not obstruct the passage. About two inches of moist sand are put into the bottom of each nest before the

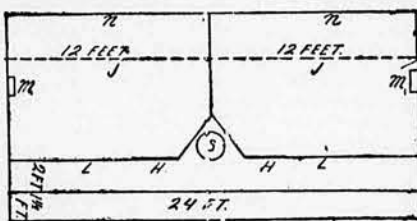


FIG. 2.—GROUND FLOOR OF POULTRY HOUSE.

hen is set; the straw nest is built thereon and the eggs are given her. The door, g, is then shut down. Every morning the hatching hens are let out for fifteen minutes to eat, drink, wallow, etc., after which they will usually take their own nests, if not they can be easily changed. The eggs can be gathered through the door, g.

At i, under the nest boxes, is a long trough with partitions for soft feed, water, milk, etc., running the whole length of the building. The space between this trough and d in Fig. 2 is slatted up with common lath, running from the front side of the nests to the back side of the trough, thus leaving the trough in the alley where the fowls cannot get into it—the lath being far enough apart to allow the fowls easy access to the feed. The lath are nailed to narrow strips at top and bottom, to be movable. At j is a dust bath the whole length of the building in front of the windows, which face the south.

In Fig. 2, at s, is an oil stove which is used when the temperature is too low. At m, m, are ventilators with slides to gauge them. The doors, h, h, are for access to dust baths, etc., and n, n, are windows. Each of the two apartments will accommodate twenty-five fowls.—American Agriculturist.

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D. B. CHERRY, Knoxville, Iowa.

BREEDERS' DIRECTORY.

(Continued from page 1.)

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All ages for sale. Herd headed by Dandy Jim Jr. and Royalty Medium, a son of Free Trade.

BLACK U. S. AND WILKES
300 head, registered or eligible. Boars in service. Modest Duke 12653 S., Wilkes Tecumseh 11760 A., White Face 12081 O. and Osgood Dandy Wilkes 12709 S. 60 young boars; 80 gilts.
J. R. CAMPBELL & SON, Avilla, Jasper 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.

SUNNY SLOPE FARM, Emporia, Kas.

200 head of Poland-Chinas, headed by LONGFELLOW 29985 O., who has the best Columbian record of any boar west of the Mississippi. 50 head of Poland-China gilts sired by Longfellow, bred to the following noted boars: J. H. Sanders, Jr., by J. H. Sanders 27219 O., dam Graceful F. 63408 O.; Hadley, Jr., sired by Hadley 27505 O., dam Samboline 8th 59032 O.; Sir Charles Corwin, by Latest Fashion 27398 O., dam Josie Wilkes 1st 69198 O. Combining the blood of Black U. S., Wilkes and Tecumseh, combining the leading and show combination and fashionable blood now sought for by breeders.

100 Berkshires, headed by the well-known boar, MAJOR LEE 31139. We have twenty-five gilts, bred from him, to General Lee, of Gentry breeding, and also to Royal Peerless the Great.

200 head of fashionably-bred Herefords. Why not come to the fountain-head for a brood sow? Call on or address

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SMOKE YOUR MEAT WITH KRAUSERS LIQUID EXTRACT OF SMOKE.
SEND FOR CIRCULAR. E. KRAUSER & BRO. MILTON, PA.

THE STRAY LIST.

FOR WEEK ENDING MARCH 6, 1895.

Phillips county—I. D. Thornton, clerk.
PONY—Taken up by G. D. Veldman, in Beaver tp., February 9, 1895, one white pony mare; valued at \$2.50.

Cheyenne county—G. A. Beukelman, clerk.

MULE—Taken up by I. C. Rice, in Cherry Creek tp., P. O. Gurney, February 9, 1895, one gray mare mule, 14 years old, fifteen and a half hands high, no brands, crippled in left hip; valued at \$5.

MULE—By same, one bay mare mule, 15 years old, fifteen and a half hands high, roan in face, no brands; valued at \$10.

Cherokee county—P. M. Humphrey, clerk.

HORSE—Taken up by Barkley Bond, in Spring Valley tp., one sorrel horse, weight 800 pounds, blaze face, flax mane and tail, hind legs white, spots on back, shod all round; valued at \$25.

FOR WEEK ENDING MARCH 13, 1895.

Labette county—J. F. Thompson, clerk.

MARE—Taken up by Geo. Shumaker, in Hackberry tp., February 4, 1895, one dark bay mare, fifteen and one-half hands high, no marks or brands visible; valued at \$6.

COLT—By same, one light bay gelding, 3 years old, under ordinary size, no marks or brands visible; valued at \$12.

COLT—By same, one light bay gelding, 2 years old, under ordinary size, left hind foot white; valued at \$7.

Sumner county—Chas. Sadler, clerk.

HORSE—Taken up by E. A. Brock, in Greene tp., P. O. Cleardale, February 1, 1895, one light bay horse, sixteen and one-half hands high, blaze face, both hind legs white to hocks; valued at \$10.

Rooks county—Chas. Vanderlip, clerk.

MARE—Taken up by W. M. Lewin, in Belmont tp., January 9, 1895, one bay mare, about thirteen hands high, weight about 700 pounds, appears to be 3 years old the coming spring, small white spot in forehead; valued at \$10.

MARE—By same, one black mare, about thirteen hands high, weight about 700 pounds, appears to be 3 years old the coming spring, small white spot in forehead, some white on both hind feet; valued at \$10.

FOR WEEK ENDING MARCH 20, 1895.

Bourbon county—G. H. Requa, clerk.

COW—Taken up by Jacob Dye, one and a half miles southeast of Rodfrey, in Drywood tp., one red cow, about 5 years old, white spot in forehead, white spots in flank and hind feet white, short stubby horns; valued at \$15.

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.

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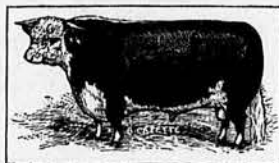
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We have now for sale ten yearling and two two-year-old Registered Hereford Bulls at low prices. Address **E. BENNETT & SON, Topeka, Kas.**

Horse Owners!

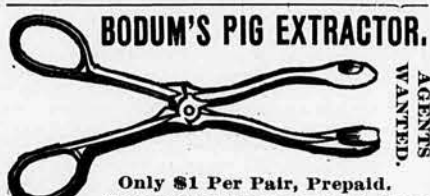
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Farmers, Spay Your Sows

For fall fattening. Also your Nannies, Ewes and Gilt Dogs, with **Howley's Spaying Mixture.** Easily used, quick, absolutely certain and safe. Price, \$3 per bottle; \$2 half bottle. One bottle spays one hundred head. Write for testimonials and particulars.

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