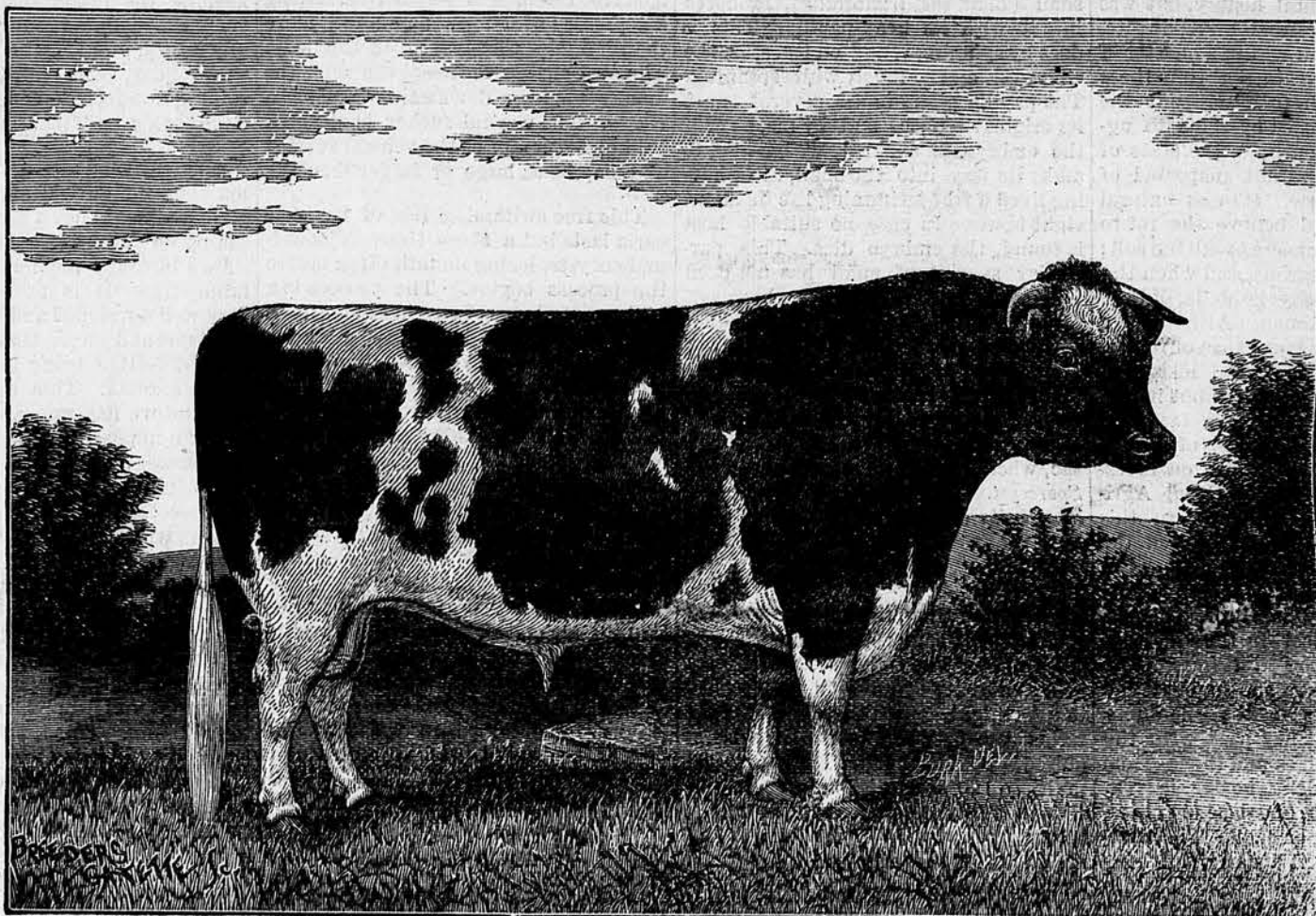


KANSAS FARMER

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KNIP.—For Three Years at the Head of the Holstein Herd to be Sold by CAREY R. SMITH, at Iowa City, Iowa, June 19th.
(See Advertisement in last week's FARMER.)

Notes and Queries--Russell County.

Kansas Farmer:

After having one of the most, in fact the most favorable spring for farmers there has been since the settlement of the county, there are still some that grumble about the weather. We have had an abundance of rain, but not enough to hinder farming or make the roads bad. The crops are in splendid condition; rye nearly ready to cut, and wheat harvest will commence within two weeks. Corn is a little backward, but in good condition. The acreage of cane is large and a good deal yet to plant. Potatoes are looking well; grass¹ in fine condition, and some of it is nearly ready to cut. There are some parties cutting rye for hay with a good prospect of getting a large quantity of hay, whatever the quality may be. We would like to see the opinion of some one who has experimented with it and when is the proper time to cut cane for feed.

We would like the editor to give us a short biographical sketch of John A. Martin and Judge Thacher, the two men who are working for the nomination on the Republican ticket. We think it is just as necessary for farmers to know what men they are sending delegates to vote for or against as it is to know what kind of seed to buy or what kind of stock is the most profitable, for the men who guide the State are very apt to leave the impress or their moral character on the people.

And we think there is an effort on the part of railroad men to quietly put men in the Legislature this fall who will repeal the

present law, and give the railroads full swing to charge just what they see fit. Every farmer should be wide-awake and see that the law is made more stringent instead of being repealed. I would reiterate what I wrote in my last—"Attend the primaries and see that the right men are sent to the conventions. I mean this for Democrats as well as Republicans.

I would like to say a word of caution to Prof. Sanborn, of the Missouri Agricultural College—(Of course I beg his pardon for offering the hint) about cutting hay. Don't wait for the "milk stage" before commencing to cut, for that means in nine cases out of ten one-half ripe before harvesting; but commence with the grass in bloom and then the majority of the crop will be at the right stage when put up.

RUSSELL COUNTY FARMER.

[REMARKS.—John A. Martin and Solon O. Thacher are very clean men in their personal habits. Both are strictly temperate; both in favor of strict and impartial enforcement of the prohibitory liquor law; both opposed to the re-opening of the dram-shop question by re-submitting the amendment to the people. Judge Thacher is a lawyer; Col. Martin is an editor; the latter commanded the 8th Kansas regiment in the war of the Rebellion. Mr. Thacher was not in the army. The writer of this is personally acquainted with both of them, and speaks from that acquaintance.—EDITOR K. F.]

About 50,000 persons are employed in the English postoffice at an expense of £5,500,000.

Tree Peddlers.

Kansas Farmer:

As some tree peddlers are canvassing this part of the State for N. H. Albaugh & Co., of the Chain of Nurseries, Tadmor, O., Burlington, Kas., Carmi, Ind., Sparta, Wis., it might be interesting reading to would-be purchasers the two following extracts from the State Horticultural Society's Report for 1879. At the ninth semi-annual meeting held at Beloit, Kas., June 17 to 19, 1879, on page 17 of Report, under head of "Frauds and Humbugs," the following occurs: Frauds and humbugs received the strongest condemnation of the Society, in which the proprietors of the Hill Home nurseries, of Tadmor, Ohio, and Rose Hill nurseries, of Iowa City, received proper handling for their efforts to swindle the people of the State with such frauds as the Conover's Seedling grape, Russian Hybrid apple trees. One Fulbhart received a full hand of censure for his attempts in selling Lombardy and Blood-leaved peaches as valuable for fruit, also such fruits as the sweet rhubarb, tree strawberry, grape-vine, raspberry, and monster peas "originating in the swamps of France." The wholesome advice was general, that it is wise to deal with nearest home nurseries and give no heed to the long-tongued, windy agents, with their finely-colored fruit books, and bottles of specimens of fruit grown elsewhere than in Kansas.

Again, on page 94 of same Report, the following may be found: We also found there the foot-prints of the unscrupulous tree ped-

dler who had galled the unsuspecting with Russian apples, etc., and that exploded humbug, the Conover's seedling grape, first brought to notice in this State by N. H. Albaugh & Co., of Hill Home Nurseries, Tadmor, Ohio. Numerous complaints from this class of swindlers have been made to this office during the past year (showing that this State is overrun with them), and urging that this Society take some action to more generally post the settlers with a knowledge as to the reliability of such men.

WILL GODDARD.

One of the most remarkable features of the Southern Exposition at Louisville will be the exhibition of fine stock of all kinds. In this collection of what is designed to be the most thorough and representative group of the finest live stock in the world will be embraced the greatest running and trotting sires that ever trod the turf, the costliest and finest cattle in the world, the best specimens of hogs, sheep and everything else which would properly belong to this character of display. Kentucky's prominence as the breeding place of the most superior live stock produced in this or any other country demands a recognition of that important interest at the hands of the Southern Exposition, and to this end the management proposes to present a perfect representation of it.

No process of machinery has ever been discovered which equals the effect produced on sealskin and ermine by trampling them under foot for twelve hours.

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.

June 17—T. W. Harvey, Short-horns and Aberdeen-Angus, Burlington, Neb.
June 18—Durham Park Herd of Short-horns, Abilene, Kas.
June 18—Stuyvesant & Foot, Short-horns and Polled, Chicago.
June 19—Thos. Hughes, Short-horns, Chicago.
September 30—Clay Co., Mo., Short-horn Breeders' Association, Liberty, Mo.
October 9—C. S. Eichholtz, Wichita, Kas., Short-horns.
November 6—S. E. Ward & Son, Short-horns, Kansas City, Mo.
November 29—Jos. E. Miller, Holsteins, at St. Louis, Mo.
May 20, 1885—Powells & Bennett, Short-horns, Independence, Mo.

Liver Fluke.

Prof. Kellerman, of the Kansas Agricultural college, gives, the following instructive matter on the subject above named.

The disease called "rot" in sheep has been recognized from a very early period of agricultural history, but was not known to be caused by a parasite, the liver-fluke, until within a quarter of a century. Previous to that time these flukes were known to accompany the disease, were supposed by some to aggravate it and continue the state of irritability, but were not suspected of causing the disease. It was natural that persons should believe the rot to be in some way connected with the soil; for only in wet seasons, and when the sheep fed on marshy grounds, did the disease become common. Although for some time past the true cause of rot has been understood, the natural history of the parasite causing it was but imperfectly known. During the last few years, Prof. A. P. Thomas, of Balliol College, Oxford, has carried on investigations on behalf of the Royal Agricultural Society in reference to this worm, or *Fasciola hepatica*, as the zoologists call it, and its life-history has been completely unfolded. The following is a summary of Prof. Thomas' paper on this subject in the *Quarterly Journal of Microscopical Science*. The eggs of the liver-fluke are to be found in great abundance in the bile-ducts and gall-bladder. They pass with the bile into the intestines and thence from the infected animals. The egg is very small, oval, smooth, and has a yellowish-brown covering or shell. The number of eggs produced by a single individual is enormous. Prof. Thomas in one case took "7,400,000 from the gall-bladder of a sheep suffering from the rot; and, as the liver contained about 200 flukes, this gives an average of about 37,000 eggs to each fluke. And these eggs are found in the gall-bladder alone; the liver must have contained at least as many more, and eggs had been passed copiously by the sheep for several months. The number of eggs produced by a single fluke may be safely estimated at several hundred thousand." They begin to develop at once and the embryo is indicated as a spherical mass of delicate, uncleated cells before leaving the host. Farther development is found to take place only after the egg passes from the body of the sheep. Experiments with an incubator shows that at a temperature of the mammalian body farther development cannot take place. At a much lower temperature the eggs, if kept moist, complete their development in a few weeks; even under the same conditions the embryos are not produced in the same length of time, the eggs hatching out on successive days for weeks or even months. This is a point of great practical moment, for it is evident that eggs scattered over any damp ground, as for instance in the droppings of the sheep, renders it dangerous for a long period.

When the embryo is fully formed and ready to emerge from the shell, it lies

slightly curved upon itself at one side of the egg. At the anterior, and just beneath a kind of lid, or *operculum*, of the shell is a viscid mass which forms a cushion for the head end of the embryo. A bright border surrounds the body. This consists of cilia, rarely in motion before the embryo emerges. Vigorous motions may now be observed, and finally a powerful extension springs the operculum, the embryo escaping into the water. At this moment the cilia begin to move, and the animal glides hither and thither at will. The free-swimming embryo is in the shape of an elongated cone with rounded apex. In the center of the base, which is directed forward, is a short retractile head-papilla. When it comes in contact with anything, the embryo pauses for a moment as if feeling the object. If not satisfied, it darts away. But if the object happens to be a certain species of snail (*Limnaeus truncatulus*), it bores into it with its head-papilla. This it does by spinning round on its axis, the cilia working vigorously while spinning. The papilla grows to be several times its original length, and by means of it the embryo is enabled, wedge-like, to make its way into the snail, after having lived a free-swimming life of about eight hours. In case no suitable host is found, the embryo dies. This particular species of snail has not been found in this country, where, however, rot is common enough, though other species of the same genus (*Limnaeus*) are abundant, and some one of these probably acts as host to the embryo-fluke. The place in which it usually takes up its abode is the pulmonary sac, where it takes on a form called the *Sporocyst*. This sporocyst is inactive, losing its cilia, exchanges its conical form for an elliptical one. It loses its rudimentary digestive tract hitherto possessed. After growth has continued some time, the elliptical sporocyst becomes somewhat elongated and sac-shaped. The full size, which may be a hundredth of an inch, is reached in a fortnight, unless the weather is not rather warm, when more time is required. Occasionally, the sporocyst multiplies by fission. This process consists in constriction about the middle of the body, extended till the two halves are completely severed. But the usual mode of multiplication is by the production of another, a non-sexual, generation—that is, by the production of so-called *rediae*. In the sporocyst, spores arise which take on a delicate surrounding membrane, become larger and nearly quadrate. By the separation of numerous cells, an opening is formed into the blind digestive tract now extending a little beyond the middle of the body. At any time a mature germ, or *redia*, ready to leave the parent, and several others in varying stages of development, may be seen in the sporocyst. When mature, the *redia* becomes active, forces its way through the wall of the sporocyst. The aperture it has made remains closed till healed, and the maturation of the other germs, is not interfered with. While the sporocysts are usually in the pulmonary chamber of the snail, the free *rediae* force their way into other tissues of the host, wandering most generally to the liver. They take on a cylindrical form, and become much elongated. The *redia* differs very much from the sporocyst in regard to the digestive tract. The former has its anterior end, the mouth, surrounded by projection folds, sometimes called the lips. The space within the lips leads into the elliptical muscular pharynx, by means of which the animal draws in and crushes the tissues which serve as food. Below the pharynx is the simple blind digestive sac. Germs, or spores, are produced in

the *rediae*, and develop either into other or daughter-*rediae*, or into the forms of another generation called *cercariae*. Passing without description over the early stages in the development called the morula and gastrula stages, the germ consists of an oval mass of cells which, as it increases, becomes more elongated and attenuated at one end. The attenuated portion becomes the tail, and the remainder the body of the *cercaria*. The body becomes depressed in shape. An oral sucker is presently followed by a rounded pharyngeal bulb. Below this is a narrow oesophagus, which, after proceeding toward the dorsal surface, bifurcates to form the two limbs of the intestine. These reach to nearly the end of the body. About twenty of these *cercariae* may be found in a single *redia*, two or three of which are mature. At maturity exit is found through a pore or birth-opening. The free *cercaria* is very active, having a depressed oval form and a tail more than double the length of the body. The oval sucker is near the end, the mouth opening downwards and forwards. The ventral sucker is situated behind the center of the ventral surface and may be as large or larger than the oval.

This free swimming life of the *cercaria* lasts but a short time. The animal encysts, losing its tail, often before the process begins. The process is a rapid one, a layer of considerable thickness being formed in a few minutes. The cysts are snow-white, though the included animals are transparent. They may be seen on the grass in low places, and are thence transferred to the herbivorous animals. Having thus found a suitable home, they attain their mature sexual condition, the form known as the adult fluke, and reproduce by eggs. Thus completing the cycle of development.

It is probable that after this entrance into the ultimate host, about six weeks is required for complete maturation. In this time the body undergoes a marked change in form. The reproductive organs are contained in the posterior part of the body, and this far outstrips the anterior in growth. The digestive tract, simply forked in the *cercaria*, acquires here a large number of branches. Afterwards, secondary branches are formed, making it very complex. The adult fluke is an inch or more in length, leaf-like in shape, having a brown or flesh color. There is a projection at one end, and at its tip is a sucker mouth, by means of which the fluke can attach itself to the walls of the bile ducts of the sheep.

It is generally supposed that the adult liver-fluke lives but three-fourths of a year; but Prof. Thomas has found that more than a year sometimes elapses before it passes from the sheep. The natural history of the parasite, as detailed above, enables one to employ rational means for its extermination. Thus infected, sheep should be killed, or, at any rate, not be allowed to graze on swampy or wet land. In this way the development of eggs would be prevented. Wet lands should be drained; or, where this is not possible, the land should receive an application of lime or salt, to destroy eggs, embryos and encysted animals. Rabbits and hares seem to be fatal obstacles to the total extermination of the disease.

For sheep losing their wool the Country Gentleman recommends bathing with saltpeter water, one ounce to the quart.

If your horses have sore shoulders, scratches, cuts or open sores of any kind, use Stewart's Healing Powder.

The best place for your ashes is around your orchard trees, whether of coal or wood, and they cannot be applied too liberally.

Vital Resistance—Inherited Taints in Farm Stock.

A man with a practiced eye is not generally at a loss as to whether an animal possesses a moderate or a liberal share of vital force. This opinion, however, is commonly held without due stress being given to unseen neutralizing influences. Defects in the constitution are much more likely to come to the surface in the progeny than they are to appear in the parents; provided always, that the influences which are liable to bring these to the surface act alike upon both. This is true, because the too-often unwise plans of coupling, conjoined with the habits of overfeeding and underfeeding, with the inevitable exposures that attend the artificial modes practiced upon the domestic animal, all tend to keep alive the weaker and more susceptible features, rather than contribute to building up the stamina, and keeping the better features in the ascendant. Taints produce a low grade of vitality, and this is perpetuated in the progeny, each additional cross containing a defect of constitution intensifying this and insuring its propagation.

As mentioned above, basing an opinion upon the outward appearances of a given animal is not a safe thing to do, taking no account of the indications shown by other members of the same family line. It is proverbial of some very well developed and healthy-appearing dams and sires, that their progeny prove defective, being in no wise equal to the parents. This is an indication that Nature has apparently attempted to do an impossible thing, namely, to so far remove an inherited taint as to cut off all liability to the transmission of the defect. The inherent recuperative powers which naturally belong to young growing, well-nourished farm animals, is quite likely to carry them up to a certain age—the age at which certain of the ancestry were forced to succumb—without, until then, showing the inevitable break which keeps company with important and deeply-planted constitutional taints. This break may be held back, as with many females of the human race, till the tax of maternity is imposed, when the drain upon the strength and substance necessary to bringing forth and sustaining the young, opens the door for whatever constitutional defect may have been held in abeyance, to make its appearance.

Nature, to use an expressive phrase, may attempt to cut off the descending line by stamping out the digression from her laws, and so far as taking the parent away is concerned, to this extent the descent is curtailed, yet, having produced progeny, it is, of course, only curtailed. From one point of view it is well that defective animals of the improved breeds quite generally get into obscure hands, and from such owners they and their progeny are disseminated slowly, quite often, in fact, disappearing from public observation as well as from the record. The fact that leading breeders learn wisdom through expensive experience, thereby gradually discarding defective material from their herds, tends, of course, to raise the average standard among animals that are held for disposal to customers. This latter class, the customers, have a means of fortifying themselves through demanding to see the evidences of thrift and perfect health in the next of kin to be shown by all the line in a given strain or family, no matter what the age. If the line seems not to be as numerous as it should, then look into the record and trace out the cause of the shortage. Perhaps this has been a family of shy breeders, and divers of its female members may have gone to the butcher, or tuberculosis may have

thinned the ranks. Things are not always as they appear upon their face, and it is the duty of those who cater to the public demand for cattle, sheep, or swine, to have a ready and correct answer to all inquiries as to the prolific tendencies; the disposition to grow and get fat, and that equally important quality, clinging to life to a good old age, producing strong progeny to the last. Customers should not be made to cure the business they have chosen to take up, through being obliged to hold up weakly progeny that it may seize hold of the teat and thenceforward be compelled to view the stable more as though it was a hospital than a mere home and shelter for farm animals, robust and healthy as they should be to profitable.

Inherited constitutional defects lie latent and appear now and then in such manner as to confound us, because we may know of no happenings to explain why morbid manifestations should be present. When this occurs, we shall generally not be wide of the mark if we attribute the break to an inherited taint. The readiness with which the animal succumbs is a warning that we not only have the disease to contend with, as such, but we have the added persistency with which it is likely to stay. An animal so affected is peculiarly susceptible to atmospheric changes, and we have at no time any guarantee of its resisting even trivial exposures. These latent taints that have come down the line without a knowledge of the fact on our part, are sometimes mis-called blood disorders, yet no treatment of the blood avails in such a case, for disease fastens upon the tissue to which it belongs, be it the lung or other part, and so-called blood remedies avail nothing towards a cure.

—National Live Stock Journal.

Interfering Horses.

By N. H. Paaren, M. D., Illinois State Veterinarian.

Many horses are in the habit of striking with one leg against another; and much of ingenuity has been exercised to provide a remedy for the troublesome practice. Both the fore and hind legs are subject to it, the latter, perhaps most frequently; but in them it is confined to the fetlock joint, whereas in the fore legs, the horse may hit either the fetlock, the leg just above the pastern, or just under the knee, where it is called a speedy cut, from its occurring chiefly in fast action.

It is desirable, before applying a remedy, to ascertain, if possible, the cause, and the part which strikes; whether the shoe or the foot, and, if the latter, what part of it. Many horses strike from weakness, and cease to do when they gain strength and condition. This is more particularly the case with young horses; others cut from a faulty conformation of the limbs, which are sometimes too close to each other; again the toe is turned too much out, or in. When turned in, the strike is usually just under the knee.

The objects to be kept in view, in shoeing such horses, must be to remedy the faulty action, and to remove, if possible, the part which strikes, which is generally that portion of the foot between the toe and the inside quarter—sometimes the inside quarter itself, but very rarely the heels of the shoe. If the horse turns his toe in, in all probability he wears the inside of the shoe most; if so, it should be made much thicker than the outside; if the contrary, the outside heel should be the thicker. The shoe should be leveled off on the inside quarter, which should also be free from nails.

In the hind legs we often find a three-quarter shoe will prevent striking,

when other plans fail, for here the striking part is not so far forward as in the fore legs, so that the removal of the iron altogether, from the inside quarter, will often accomplish the aim. It sometimes happens that no plan will prevent interfering, and then the only recourse is the boot or the pad.

BLEEDING AT THE NOSE.

This complaint is much more frequent among thorough, or very highly bred horses, than those of a coarser character, probably from the nature of the exertion such horses are put to. It is not, however, improbable that the fineness of the blood vessels in high-bred horses, may in some way contribute to their rupture when unusually distended. Be it so or not, it is exertion that brings it on. To what extent a liability to this casualty affects the value and utility of the animal, depends in a great measure on the purposes for which he is intended. Great liability to this occurrence would reduce the value of a race horse—that is, as one in training—from five thousand to perhaps five hundred dollars; in fact, as a race horse, however superior, he would be comparatively worthless, and he could not be depended on. It can scarcely be called dangerous to the animal, as it seldom causes sufficient loss of blood to be more than a temporary inconvenience.

A horse subject to bleeding at the nose when racing, might never have a recurrence of it, when ridden as a lady's horse, or in harness for moderate work. If, therefore, one subject to this casualty were particularly desirable in other respects there is no objection to purchasing him for purposes requiring less exertion; but on no account buy him at any price, if wanted for the work that brought on the bleeding, whether wanted for riding or driving, though by using him very moderately one might prevent a recurrence. Knowing the condition of horses, and their inflammatory habits, fed and used as they are, we would rather have a horse faint and drop from loss of blood, than have even a slight attack of internal inflammation. Weakness from loss of blood is easily and surely to be remedied, but inflammation is most difficult to be subdued.

Every bunch of grass or weeds that grows in the garden is just so much nutriment taken from the vegetables.

A cross of the Muscovy duck and common puddle duck makes one of the best crosses for market that can be made.

Peter Henderson directs that Lima beans should always be planted edgewise, and they will all come up and grow vigorously.

The Brahmins invest the cow with great sanctity. No place is forbidden to it; wherever it chooses to feed it is at liberty to eat; wherever it may elect to lie down, the place is sacred to its needs. A cow may never be struck or even reproached.

Housekeeping must be a simple business in those parts of Buenos Ayres recently described by a traveler, for the staple article of diet is meat; vegetables and fruit are only eaten during one month, and farina, the substitute for bread, is very scarce.

Agricultural Books,

At Publishers' Prices, Postage Paid.

T. J. KELLAM,

183 Kansas Ave., Topeka, Kansas.

YORK NURSERY COMPANY
(Established 1870). Nurseries and Green Houses at FORT SCOTT, KANSAS. Largest Stock of Nursery and Green House Plants in the West. BEAUTIFULLY ILLUSTRATED CATALOGUE now ready. Mailed to applicants free.

BREEDERS' DIRECTORY.

Cards of three lines or less, will be inserted in the Breeder's Directory for \$10.00 per year, or \$5.00 for six months; each additional line, \$2.00 per year. A copy of the paper will be sent the advertiser during the continuance of the card.

CATTLE.

U. P. BENNETT & SON, Lee's Summit, Mo., breeders of THOROUGHBRED SHORT-HORN CATTLE, Cotswold sheep, Berkshire swine, Bronze turkeys and Plymouth Rock chickens. Inspection invited.

POWELL BROS., Lee's Summit (Jackson Co.), Mo., breeders of Short-horn Cattle and pure-bred Poland-China Swine and Plymouth Rock Poultry. Stock for sale. Mention this paper.

W. A. POWELL, Lee's Summit, Mo., breeder of the Poverty Hill Herd of Thoroughbred Short-horn Cattle. Inspection and correspondence solicited.

DR. B. PATTON, Hamlin, Brown Co., Kas., breeder of Broadlawn Herd of Short-horns, representing twelve popular families. Young stock for sale.

J. M. MARCY & SON, Wakarusa, Shawnee Co., Kas., breed Thoroughbred Short-horns of fashionable families. A few yearling bulls and young cows left for spring trade. Correspondence solicited.

WALNUT PARK FARM, Frank Playter, Prop'r., Walnut, Crawford Co., Kas. The largest herd of Short-horn cattle in Southern Kansas. Stock for sale. Correspondence invited.

A. HAMILTON, Butler, Mo., Thoroughbred Galloway cattle, and calves out of Short-horn cows by Galloway bulls, for sale.

WM. D. WARREN & CO., Maple Hill, Kas., importers and breeders of Red Polled Cattle. Stock for sale. Correspondence solicited. R. R. station St. Marys, Kas.

HOLSTEIN CATTLE AND SHROPSHIRE SHEEP bred and imported by Jos. E. Miller, Ellwood Stock Farm, Belleville, Ill.

J. W. LILLARD, Nevada, Mo., breeder of THOROUGHBRED SHORT-HORNS. A Young Mary bull at head of herd. Young stock for sale. Satisfaction guaranteed.

WM. F. HIGINBOTHAM, Manhattan, Riley Co., Kas., Proprietor of the Blue Valley Herd of Recorded Short-horn Cattle of the best families, and choice colors. Also High Grade Cattle. Offers some choice bargains in Bulls, Cows and Heifers. The growing of grade bulls for the Southern and Western trade a specialty. Correspondence and a call at the Blue Valley Bank is respectfully solicited.

PLEASANT VIEW FARM, Wm. Brown, Lawrence, Kas., Breeder of JERSEY CATTLE of the best strains.

OAK WOOD HERD, C. S. Eichholtz, Wichita, Kas. Live Stock Auctioneer and breeder of Thoroughbred Short-horn Cattle.

Hereford Cattle.

E. S. SHOKEY, Lawrence, Kansas, breeder of Thoroughbred Hereford Cattle. Three cows and 11 bulls for sale. Also Grade bulls and heifers for sale.

W. C. MCGAVOCK, Franklin, Howard Co., Mo., Breeder of Thoroughbred and High-grade Hereford and Short-horn cattle. 100 head of High-grade Short-horn Heifers for sale.

F. W. SMITH, Woodlandville, Mo., Breeder of Thoroughbred Hereford Cattle. Dictator 1889 heads the herd. 50 Grade Bulls for sale.

GUDELL & SIMPSON, Independence, Mo., Importers and Breeders of Hereford and Aberdeen Angus cattle, invite correspondence and an inspection of their herds.

CATTLE AND SWINE.

WOODSIDE STOCK FARM, F. M. Neal, Pleasant Run, Pottawatomie Co., Kas., breeder of Thoroughbred Short-horn cattle, Cotswold sheep, Poland-China and Berkshire hogs. Young stock for sale.

J. E. GUILD, CAPITAL VIEW STOCK FARM, Silver Lake, Kansas, Breeder of THOROUGHBRED SHORT-HORN CATTLE and POLAND-CHINA SWINE. Correspondence solicited.

DR. A. M. EIDSON, Reading, Lyon Co., Kas., makes a specialty of the breeding and sale of thoroughbred and high-grade Short-horn Cattle, Hambletonian Horses of the most fashionable strain, pure-bred Jersey Red Hogs and Jersey Cattle.

H. B. SCOTT, Sedalia, Mo., breeder of SHORT-HORN CATTLE, POLAND-CHINA HOGS, COTSWOLD and SHROPSHIRE SHEEP. Send for catalogue.

W. H. & T. C. EVANS, Sedalia, Mo., Breeders of Short-horn Cattle, Berkshire Hogs, Bronze Turkeys, Plymouth Rock Chickens and Pekin Ducks.

SMALL BROS., Hoyt, Jackson Co., Kansas, Breeders of Short-horn Cattle and Chester White Swine. Correspondence solicited.

SHEEP.

E. COPLAND & SON, DOUGLASS, KANSAS, Breeders of Improved American Merino Sheep. The flock is remarkable for size, constitution and length of staple. Bucks a specialty.

MERINO SHEEP, Berkshire hogs and fifteen varieties of high-class poultry of the best strains. Bucks a specialty. Harry McCullough, Fayette, Mo.

C. F. HARDICK & SON, Louisville, Kansas, breeders of REGISTERED AMERICAN MERINO SHEEP. Having good constitution and an even fleece of fine, dense wool. Fine wool a specialty. Come and see our flocks or write us.

R. HOFFMAN, Wichita, Kas., breeder of SPANISH MERINO SHEEP. Bargains in registered Rams.

D. W. MCQUITY, Hughesville, Pettis Co., Mo., breeder of SPANISH MERINO SHEEP, Berkshire Swine, and eight varieties of Poultry. Eggs, \$1.50 per setting.

G. B. BOTHWELL, Breckenridge, Mo., has 1,100 Merino rams for sale. 250 of them are registered. His seven best stock rams shear from 27 lbs. to 33 lbs., weigh from 145 lbs. to 180 lbs.

PURE-BRED Registered Vermont Spanish Merino Sheep and Light Brahma Poultry for sale. Satisfaction guaranteed. R. T. McCulley & Bro., Lee's Summit, Mo.

SWINE.

CATALPA GROVE STOCK FARM, J. W. Arnold, Louisville, Kansas, breeds Recorded

POLAND-CHINA SWINE and MERINO SHEEP.

The swine are of the Give or Take, Perfection, and other fashionable strains. Stock for sale in pairs not related. Invite correspondence or inspection of stock.

A. J. CARPENTER, Milford, Kansas, breeder of Thoroughbred Poland-China Swine. Stock for sale. Inspection and correspondence invited.

WM. PLUMMER, Osage City, Kansas, breeder of Recorded Poland-China Swine. Young stock for sale at reasonable rates.

I. L. WHIPPLE, Ottawa, Kas., breeder of Recorded Poland-China and Red Berkshire Swine. Stock for sale at all seasons. Correspondence solicited.

L. W. ASHBY, Calhoun, Mo., Pure English Berkshire, Imported Royal Toronto 4577 at head of herd. Inspection solicited.

R. B. BALDRIDGE, Parsons, Kas., breeder of THOROUGHBRED RECORDED POLAND-CHINA SWINE. Stock for sale. Inspection of herd or correspondence inv.

ROBERT COOK, Iola, Allen county, Kansas, importer and breeder of Poland-China Hogs. Pigs warranted first-class. Write.

POULTRY.

ONE DOLLAR per 13 for Plymouth Rock eggs; Pekin Duck eggs the same. Three sittings for \$2.50. Mark S. Salisbury, P. O. box 931, Kansas City, Mo.

N. R. NYE, breeder of the leading varieties of Choice Poultry, Leavenworth, Kansas. Send for circular.

PEABODY POULTRY YARDS, Weldlein & Byrum, proprietors. Light and Dark Brahmas, W. and B. Leghorns, Buff and Part, and Black Cochins, B. B. R. G. Bantams, W. F. B. Spanish, Leitch's B. R. Game, S. S. Hamburg, Blk. Javas, W. E. B. Polish, Houdans, P. Rocks, Langshans. Eggs now for sale; \$2 per setting. Chickens Sept. 18th.

NEOSHO VALLEY POULTRY YARDS.—Established, 1870. Pure-bred Light Brahmas, Partridge Cochins, Plymouth Rocks. Eggs in season. Stock in fall. Send for circular. Wm. Hammond, box 190, Emporia, Kas.

WM. WIGHTMAN, Ottawa, Kansas, breeder of high-class poultry—White and Brown Leghorns and Buff Cochins. Eggs, \$2.00 for thirteen.

RIVERSIDE POULTRY YARDS, Cricket Randolph Prop'r., Emporia, Kas. Plymouth Rock, Partridge Cochins, Light Brahmas, or Brown Leghorn eggs, \$2.00 for 13.

WAVELAND POULTRY YARDS, Waveland, Shawnee county, Kansas. W. J. McColm, breeder of Light Brahmas, Plymouth Rocks, and Pekin Ducks. Stock for sale now. Eggs for hatching in season; also Buff Cochins eggs.

G. W. PLEASANT, Wright City, Mo., breeds the very best L. Brahmas, P. Cochins, P. Rocks, W. Leghorns, Aylesbury Ducks, etc. Established in 1871. Write for circular.

MISCELLANEOUS

STOCK FARM FOR SALE.—640 acres, together with stock and farm implements. Address J. H. Reints, Odin, Barton Co., Kas.

J. G. D. CAMPBELL, Junction City, Kansas, Live Stock Auctioneer. Sales made in any part of the United States. Satisfactory reference given.

STRONG CITY STOCK SALES will be held the fourth Saturday in each month at Strong City. Address G. O. HILDEBRAND, Secretary.

S. A. SAWYER, Manhattan, Kas., Live Stock Auctioneer. Sales made in all the States and Canada. Good reference. Have full sets of Herd Books. Compiles catalogues.

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No. 130 Kansas Ave., Topeka. All orders promptly filled. Also storage for all kinds of goods at reasonable charges. Orders taken for backs. Moving families a specialty. A. G. DRAKE, Manager.

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Formerly of the firm of A. A. Crane & Son, Osco, Ill.

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—For the Sale of—

HEREFORD, POLLED ANGUS, GALLOWAYS, SHORT-HORN, And Thoroughbred and Grade Cattle of all breeds.

Carload Lots a Specialty.

Stables, Riverview Park. Address F. P. CRANE, Stock Yards, Kansas City, Mo.

THE LINWOOD HERD

SHORT-HORN CATTLE



IMP. BARON VICTOR
W. A. HARRIS, Linwood, Kansas.

The herd is composed of VICTORIAS, VIOLETS, LAYENDERS, BEAUVITH BUDS, SECRETS, and others from the celebrated herd of A. Cruickshank, Sittytown, Aberdeenshire, Scotland. GOLDEN DROPS, and UREYS, descended from the renowned herd of S. Campbell, Kinellar, Aberdeenshire, Scotland. Also YOUNG MARYS, YOUNG PHYLLIS, LADY ELIZABETH, etc. IMP. BARON VICTOR 42324, bred by Cruickshank, and IMP. DOUBLE GLOSTER head the herd. Linwood, Leavenworth Co., Kas., is on the U. P. R., 27 miles west of Kansas City. Eggs for sale. Catalogues on application. Inspection invited.

GLANDERS IN KANSAS HORSES.

An Interesting and Instructive Letter From the State Veterinarian.

Kansas Farmer:

I have the honor to request that through the columns of your paper, which reaches the vast majority of stock owners in the State, you call the attention of the public to the dangerous prevalence of glanders among the horses and mules of this commonwealth. Since the first day of April cases of this disease have been reported from twenty-nine counties. From some of these counties but a single outbreak has been reported as yet, while from others a score or more have attracted attention and given rise to just alarm.

If we may judge from the testimony given by many farmers and horse dealers throughout the State, the yearly losses from this disease have been steadily on the increase for the last ten years, until at the present time they have reached very serious proportions. Surely it is time to arrest a plague which in six years time has destroyed for one farmer in Marion county eighteen head of horses; for another in Shawnee county fourteen, and another in Jackson county thirteen within five years. The facts are that I have scarcely visited an infected farm without finding that the occupant has suffered a loss of from one to five animals from this disease during the past twelve months.

That there are many cases which have not yet been heard from is more than probable, for reports of the disease are received almost daily and the infected district is constantly enlarging. In some localities certain farmers are forbidden to drive their teams into the villages; others refuse to hitch, feed or water their animals in public places for fear that they may contract the disease, while others, with less care for the injury which might follow, have sold their animals far and wide when they found that they were diseased.

That an intentional traffic in glandered horses has been carried on in some of the infected counties, may be readily learned; and to this fact is to be attributed in great part the widespread prevalence of the disease. Under such circumstances the matter becomes one of very grave importance, and unless the co-operation of all interested parties can be secured the disease cannot be suppressed. If the ravages of this plague continue unchecked, the vast sums of money invested recently in high-bred horses will be so endangered as to preclude the probability of further investment in that direction. This alone would prove a most serious drawback to the best interests of the State, for the improvement in the quality of our horse stock during the last five years has been simply wonderful.

For the benefit of the entire public I would suggest that you publish a concise description of the disease in that they may learn to detect it in its early stages. The following would probably cover the ground:

Glanders and farcy are one and the same disease, differing only in the local parts wherein the symptoms are developed. The poison from glanders may produce either farcy or glanders, and vice versa. The disease is highly contagious to the horse, mule, ass and man, and cannot be produced except by bringing the healthy in contact with the diseased, or with some of the secretions or excretions of the body—as, for instance, the discharge from the nose or farcy buds, the saliva, urine, sweat, manure, etc. Nasal gleet or chronic catarrh does not "run into" glanders, but anything which debilitates the system or irritates the membrane of the nose increases the animal's liability to become infected should he come in contact with the glanders poison. In the same way the development of the symptoms may be hurried after infection has taken place.

Infection is resisted by some animals for a long time, just as some men resist small-pox infection, while others readily contract the disorder. So, also, do some rapidly succumb to the disease, while others live for years. Mules rarely live longer than ninety days after the first symptoms appear. Old animals are the ones most likely to have the glanders, particularly in the chronic form, while the young are more likely to develop farcy.

The first symptom of glanders which generally attracts attention is the discharge from the nose. This discharge is not always peculiar to the disease in appearance; yet occasionally has a whitish, transparent look

rarely seen in any other condition. In most cases the discharge is from a single nostril but may come from both. It comes from that side of the head affected with the ulcers and nodules. If both sides are affected, then do both nostrils discharge.

The nodules make their appearance in the form of small, yellowish-white lumps, tumors or elevations of the mucous membrane covering the partition of cartilage between the nostrils. By a degeneration of their surface and a breaking down of their substance the glanders ulcer is formed. The nodules and ulcers are generally to be detected on the lower portion of the partition, yet they may be so high up in the nose as to entirely escape detection. In these cases, as well as in those where the lungs are the principal seat of the disease, hemorrhages are apt to occur at various times, but particularly during work or exercise. These ulcers appear singly, but several may run together and form a large patch. These ulcers do not tend to heal, although one occasionally does so. As a rule, especially in mules, the ulceration continues until the partition is eaten through. The presence of a nodule, ulcer, or unaccounted hemorrhage is sufficient evidence on which to condemn the animal; for even though there be no discharge the diseased animal is capable of infecting others.

In many cases of glanders, but not in all, the glands beneath the jaw are enlarged, hard and more or less adherent to the bone. They rarely gather and break as in distemper.

Exceptionally the glanders deposits are located alone in the lungs. In these cases there is but little or no discharge from the nose. There may be a suspicious cough. These are the animals which infect others without exciting the suspicion that they are diseased, and to them may often be traced those cases of supposed spontaneous origin.

In farcy the skin is the seat of local development of the poison. Lumps or "farcy buds" appear along the course of the large veins and in the lymphatic glands. These "buds" rise up rapidly, are about the size of a hazel nut, but may be larger, and generally suppurate, discharging an amber-colored fluid at first, which glues the surrounding hair to the spot. Buds are most often found inside the thigh, along the neck, on the chest, face, fore legs, belly and back.

Glanders is an incurable disease; is always a source of great danger both to man and solipeds, and should be treated by immediate destruction. The public can aid greatly in the rapid eradication of this disease by refusing to purchase any horse or mule that is running at the nose or has suspicious buds on the skin; by reporting all such animals to the sheriff of the county or to the State Veterinarian; by refusing to hitch, feed or water in public places, and by the adoption of rigid quarantine, and through disinfection in case of an outbreak.

I am, sir, very respectfully, your obedient servant,
A. A. HOLCOMBE.

Leavenworth, Kas., June 3.

Hall's Holsteins.

Special correspondence KANSAS FARMER.

The first public sale of thoroughbred Holstein cattle ever made in Kansas was held at Emporia last week. John P. Hall, one of the first breeders of this celebrated dairy breed of cattle, and the first breeder that ever exhibited the stock at the Bismarck and State fairs, made the sale, assisted by that ubiquitous salesman, Col. S. A. Sawyer, of Manhattan. While the prices were hardly representative for such cattle, yet considering that this was an initial sale, and that the breed is as yet barely introduced, the cattle may be said to have been satisfactorily sold, as Mr. Hall and the purchasers were both satisfied with the results.

The following is a detailed report of the sale:

Witch 3d, 1 yr, J. K. Wright, Junction City, Kas.	\$200
Cow calf, 1 month, John Fritz, Emporia	120
Flaxie, 4 yrs, F. H. Kallack, Peabody	190
Pomona, 5 yrs, same	275
Imp. Hannah, 10 yrs, Fred Hess, Emporia	190
Witch 2d, 4 yrs, J. K. Wright	250
Bellwort, 6 yrs, P. G. Griswold, Solomon City	280
Imp. Pansy, 8 yrs, C. F. Stone, Peabody	260
Polonaise, 3 months, G. W. Harrop, Manhattan	120
Flawn, 7 yrs, C. F. Stone	205
Imp. Cowslip, 8 yrs, G. W. Harrop	250
Bonita, 6 months, F. H. Kallack	150
Kansas Maid, 6 months, same	150
Peyton, (bull) 4 yrs, A. C. Haines, Emporia	235
Pontiac, (bull) 1 month, E. Foote, Burlington	90
Two bulls sold for \$325, average \$162; thirteen females \$2,640, average \$203. Fifteen Holsteins \$2,965, average \$200.	II.

Emporia, June 4.

KANSAS STATE HORTICULTURISTS.

The Fourteenth Semi-Annual Session Held at Junction City, June 4 to 6.

First Day.

The Kansas State Horticultural Society convened in their fourteenth semi-annual session at the opera house in Junction City, with Vice President Newman in the chair. There was a very full representation from all parts of the State. The session opened more auspiciously than at any previous meeting at the semi-annual sessions. The local attendance and entertainment was all that could be desired.

CONDITION OF FRUIT CROP OF 1884.

Davis county.—There will be about a two-thirds crop of apples, and a full crop of cherries, plums and pears; peaches a failure. A fair crop of strawberries and blackberries, and a better yield than usual of gooseberries and currants.

Allen.—Apples a good crop, the Wine-sap, Ben Davis, Summer Rose and Carolina Red June reported full and a light crop of the Janet. Peaches scarce. Pears and cherries full, especially the Early Richmond and English Morello cherries. A full crop of plums, grapes and apricots. There will be but a moderate crop of blackberries; the canes seriously injured by the winter, except of the Snyder, which was injured by rabbits. A fair crop of the Turner and Black Cap raspberries, an unusual crop of gooseberries, strawberries good, and currants grown in the shade promise well. A heavy crop of the never-failing Juneberry. The canker-worm and codling-moth are the most troublesome insect. The remedy is to bind the base of the tree with cloths and keep well saturated with molasses, which prevents their ascending the trees, and when the attempt is made they stick fast and may be destroyed.

Douglas.—The apple crop was flattering in early spring, but reduced while in bloom by the cold wet weather. The yield will be 60 per cent. of last year's crop. Sound pear trees will make a full yield. Peaches a failure. All of the small fruits will make a full yield.

Cowley.—Apples will make a full crop; also plums, apricots, cherries, strawberries, blackberries and raspberries. The peach crop will be light.

Reno.—All classes of fruit will make a full crop except peaches. There is no disease in the fruit excepting mildew on the gooseberry.

Chase.—There will be one-third of a crop of apples, found mainly on the north side of the trees. The Rome Beauty and Ben Davis will make a full crop, while the Missouri Pippin will fail entirely on account of bearing so heavily last season. No peaches. Apricots have yielded well for three years. Pears will make a half crop. Plums, cherries and strawberries a full crop. Grapes generally good. Currants will make a full crop where grown in shady places. Gooseberries a full crop, but in the bottoms are mildewed. The Snyder blackberry injured by the winter.

Wilson.—Apples one-half crop; the fullest sorts are the Ben Davis and Wine-sap. The Weaver plum a full crop. The Early Richmond cherry will make a fair crop. Apricots a fair crop and are being largely cultivated. Strawberries a heavy crop, the Crescent variety the most productive. There will be full crops of currants, cherries and the Juneberry.

Dickinson.—Apples will make one-third crop, the fullest sorts are the Maiden's Blush, Jonathan and Ribston's Pippin. Peaches a failure, plums and pears light, apricots scarce, cherries and grapes good. No pear blight. Strawberries plenty, the Wilson the leading variety. There is no difference in the hardness of the canes of the Kittatiny and Snyder blackberry.

Wyandotte.—The report on fruits of all kinds is about the same as in Douglas county. The Wine-sap apples are falling.

Shawnee.—The apples will make a yield of 75 per cent. Quinces, grapes and small fruits a full crop.

Republic.—The orchards are young and are just beginning to bear; very few old fruit trees in the county. Pear trees are young and will make a small crop. Small fruit is doing well. The plums are dropping. Currants promise a future success.

Wabunsee.—Apple crop as well as small fruit promise a small crop owing to hail storms.

Ellis.—Apples, cherries and plums will make a fair crop. The wild plum always

full except when we have late frosts. Peaches scarce, gooseberries doing well.

Clay.—Apples will make a light crop, except the Wine-sap. Cherries will make a good crop. Peaches a failure. Blackberries about one-half crop.

Decatur, Graham, Rawlins and Thomas counties report an increase in the area of all kinds of fruit, and feel confident.

A large number of delegates arrived after the reports from counties were over.

B. F. Smith, of Lawrence, sent one of his able and practical papers on Strawberry Culture, which was read by Samuel Reynolds. Quite an interesting discussion followed the reading of the paper.

Abner Allen: The Bidwell is very productive. All sorts are doing well in Wabunsee county.

J. W. Robson: The Bidwell is also a successful strawberry for Dickinson county. I planted a bed of Wilson's in 1878 and nothing has been done with them except to cut off the weeds twice a year, and have yielded a good crop every season. Why don't more farmers grow this best of fruits? The Wilson, when ripe, is not so acid as reported.

Secretary Brackett, who has had twenty years' experience in strawberry culture was called out and made a highly interesting and practical speech. A resolution was passed requesting him to prepare his speech for the next volume of the Society's report.

Nearly all present concurred that currants could be grown successfully in the shade.

A paper was read on Grape Culture by M. B. Newman, of Wyandotte, which was followed by a discussion.

The committee to confer with the State Superintendent of Public Schools, relating to horticulture in common schools, reported progress and were continued.

At the evening session Judge M. B. Newman presented an elegant bouquet to the Society in behalf of the ladies of Chanute. A hearty vote of thanks was tendered the ladies for their beautiful tribute.

A very interesting and valuable paper on The Sanitary Value of Plants and Trees was presented by Mrs. M. A. Humphreys, of Junction City. A resolution passed requesting it for the next volume.

Prof. Hay followed with a scholarly paper on the Geological Argument.

There was not a paper presented that was received better than the one by John Davis, of the Junction City Tribune, on Pluck and Patience in Horticulture. It was practical and critical.

Second Day.

Orchards for Market, was the subject of a paper by J. G. Clark, read by J. W. Robson. This was followed by a paper on the Canker-worm in Southeastern Kansas, by G. W. Ashby, of Chanute. The remedies suggested were tying bands of cotton around the trees and of showering the trees with London purple. The cold and wet season has been unfavorable for these worms. The large flocks of birds act as a very efficient factor in the extermination of the canker-worm.

"Notes By the Way," by Sam'l Reynolds, of Lawrence, was carefully presented. Orchards on side hills are found to be the most constant bearers. Seeding orchards with red clover was deprecated as the soil must feed two sets of roots. Bearing orchards should have undisputed possession of the soil. Hog culture in orchards was condemned on account of their ruining the orchards. Cherries are reported as failing in many localities. The tree is a great feeder and needs plenty of manure, and the trees should be planted so as to make forty trees to the acre. He concluded with the statement that God had never made a better country than Kansas.

Wm. Gould said: Thin out and top low and prune when needed, when the limbs are small, using a common knife.

Clover in orchards occasioned considerable discussion. If it is possible to keep the ground perfectly clean by culture it is found the best; but as it is generally known that something will naturally grow, nothing better can be grown than red clover, and a majority advocated its use, because clean culture seems impracticable. Wellhouse, of Leavenworth, believed that clover derived nine-tenths of its food from the atmosphere, and does more than any other plant to convert the limestone soil into productiveness.

In using the remedy of London purple for canker-worm about two pounds for fifty gallons of water was advised. Prof. Robson mentioned the chickadee, nut-thrush, king-

bird, butcher-bird, English sparrow, American creeper and tom-tit as very useful in ridding the orchard of canker-worms.

Following this discussion the report of the standing committee on Geology was read by L. A. Simmons, of Sumner county. The paper was entitled "The Formation and Transformation of the Soil." It was a very careful presentation of this subject.

President E. Gale then delivered his semi-annual address to the Society. He reviewed the work, character and influence of the Society, made a number of sensible suggestions as to the benefits of horticulture and advised the Society to be conservative regarding new questions, etc.

G. W. Ashby, of Chanute, gave a paper on "Pear and Peach Culture."

Report of the Committee on Fruit, on Exhibition: The committee would report that they find the tables well filled with samples of the fruits named and accredited to the following counties. We desire to say that all the specimens are very fine:

Davis county.—Theo. Jones shows the Ben Davis, Willow-twig, White Winter Pearmain and Janet. Cutter & Jones show the Fink strawberries. H. H. Bingham & Co. show plate of Wilson and Crescent strawberries. Mr. Shepherd showed several fine twigs of apples, cherries, plums, currants and gooseberries.

Douglas.—B. F. Smith exhibited Cumberland's Triumph, Boyden, Sharpless, Miner's Prolific, Ironclad, Wilson, Prouty, Chas. Downing, Crescent and Mt. Vernon strawberries.

Lickinson.—J. N. Shepherd showed the Ben Davis, Missouri Pippin, Janet, Little Romanite, Willow Twig, W. W. Pearmain and Grindstone.

Ellis.—Martin Allen showed from this frontier post good specimens of peaches, cherries, gooseberries, apple twigs bearing fruit, the plum and native black currant.

Neosho.—James Truitt shows fine samples of Truitt's Surprise, Sharpless, Duchess, Cumberland Triumph and the Bidwell strawberries.

Reno.—W. E. Fosnot shows good samples of strawberries, cherries, apples, crabs, seedling peaches, also the Sand, Wild Goose and Blue Damson plums, and the apricot and Concord grape, contributed by A. M. Switzer, C. Bishir, and others.

Clay.—Mr. Walters showed samples of potatoes and onions. Committee—Messrs. Byram, Kokanour and Wellhouse.

Report of the standing Committee on Botany gave a paper on "Tropical Fruits," prepared and read by Prof. J. W. Robson. The paper contained much information and was well received.

The following resolutions were thoroughly discussed and passed:

Resolved, That the Kansas State Horticultural Society take charge of the display of fruits at the next State Fair, and that we, the members of this Society, pledge ourselves to use our best endeavors to make said displays as large and attractive as possible from all parts of the State.

Resolved, That we, the members of this Society would most respectfully request the next Legislature to provide for a thorough geological survey of the State.

Resolved, That the Secretary of this Kansas State Horticultural Society be requested to correspond with the Director of the U. S. Geological Survey respecting the employment of a party of that service into the State of Kansas at an early day.

The Committee on Needed Legislation reported through the chairman, L. A. Simmons, of Sumner county, an outline of a bill which proposes the selection of County Commissioners of Horticulture, etc. The report was accepted and copies ordered printed for distribution for further consideration.

The address of welcome was given by Geo. Martin, Mayor of Junction City, and was a masterly recognition of the value of horticulture and of the State Society, also abounding in statistical facts and reminiscences.

A fitting response was given by Lieut. Todd, of Manhattan, to the address of welcome.

Third Day.

Prof. J. W. Robson discussed the Russian apple. He said that they had been tested in England and America. Very few varieties are considered good apples, yet agents travel over the country carrying certificates from noted men and selling trees at \$1.50 each.

In the discussion which followed fraudulent peddlers were roundly abused and the Russian apple generally condemned. The following resolution passed: That the Rus-

sian apples, except Duchess of Oldenburg, Red Astrachan and Tetofsky are unworthy of cultivation.

J. W. Robson read a paper on "Little Workers." The birds were denominated as such. Their work is to prevent an undue increase of insects. In his strong pleas for these little workers, he took occasion to describe the blue bird, summer yellow bird, black-cap titmouse, nut-hatch, brown creeper, wood-pecker, house-wren, chipping sparrow, song sparrow, ground sparrow, tree sparrow and crested red bird. He is a strong advocate of the natural sciences being taught in our schools.

A resolution was passed requesting Prof. J. W. Robson to prepare a paper for the next session of this Society on the subject, "Our Friends and Foes and How We Use Them."

A discussion on the Timber Culture act took place.

Martin Allen offered the following resolution which was adopted:

Resolved, That we, the State Horticultural Society, now in session at Junction City, Kansas, look upon the recent action of our members of Congress in relation to the repeal of the Timber Culture act with feelings of distrust and disappointment.

Resolved, That it is the sense of this meeting assembled from all parts of this great commonwealth of Kansas that this law ought not to be repealed; but that when once a timber claim is entered under this law it should not thereafter by relinquishment become liable to entry under any other act.

Resolved, That the Secretary of this Society is hereby instructed to place copies of the foregoing before each member of our delegation in Congress from Kansas.

The Society then adjourned *sine die*. This was generally conceded to be one of the best sessions of the Society at a semi-annual meeting.

Horticultural Notes will appear in a later issue. H.

Stacking Hay and Grain.

Most of our farmers are without barns and sheds to put their rough crops in, hence with them stacking is a necessity.

Grain, such as wheat, rye and oats, may be preserved about as well in stack as in mow, if the work is well done. The principal feature of good stacking, both of hay and grain, is to keep the middle full—a little higher than the outside and as solid as possible. Both hay and grain should be dropped on a middle line of the stack and not on the outer edge. If sheaves of wheat, for instance, are being pitched from a wagon on the stack, let every one fall at the center of the stack, if it is a round one, and on the middle line if it is a rick or "long stack." A boy should be in position near the center and pass the sheaves or bundles to the stacker, letting them drop at his right side (unless he be left-handed), butts foremost, so that the stacker may pick them up readily and put them in position.

To begin a stack of wheat, rye or oats, or anything which is bound in bundles, first throw down some straw or hay where the stack is to be, if you have no rails or boards or scantling or poles. Lay it thick all over the space which the stack is to occupy. Place one bundle flat down in the center of the foundation, then place another bundle on the first, heads the other way, and resting over the band of the first one; then build around on these, placing the butt of every bundle on the foundation, with the heads on the top of the second bundle. Make the first layer round, then stand on top of it, and going to the right all the time, build around the first layer, butts down always and heads in always, until the bottom is as large as you desire. This method makes a round bottom. If you desire a rick or long stack, after you have the proper width, build out a square end and then continue to build back and forth at the other end, until you have the desired length.

Now, you have the bottom. Then begin at the middle again and repeat precisely what you did before, if the stack is round; but if it is long, lay a few sheaves lengthwise from end to end in the middle, not reaching any nearer

the ends of the stack than they do the sides, and on these build around just as if the stack were round. This long middle gives the desired shape for the rick. But on this, and all subsequent layers, the bundles may be laid flatter than those on the first layer.

It will be noticed that in all grain which was shocked in the field, the butts have a regular facing made by standing on end and in a leaning posture. This makes every bundle a little longer on one side from the band than on the other. This peculiar shape of the butts is to be considered in placing every bundle in the stack. In the first layer the short side is laid downwards in every case except only near the corners of a rick. The exact corner bundle is laid long side up, and the two or three bundles next to it on either side, are laid with the long side next to the corner sheaf. This helps to give shape to the stack.

It is well to make the stack a good deal wider a little way above the ground than it is at the bottom. This makes the stack hold more grain, gives it greater weight, and makes it stouter in resistance to wind. To do this, after the second layer has been placed, lay the outside bundles so that their short side will be down, the end resting at the outer edge of the bundle-ends below. This will give an outward angle to the layer. Put the next layer the same way, and continue until the stack is about eight feet high. If the outer sheaves have been laid as directed, the stack will now be four to six feet wider than the foundation. Then commence "drawing in." Lay the outside bundles now, and until the stack is "topped out," with the short side uppermost.

This would "draw in" as fast as you "widened out," but you don't want to come in that fast. So, you must be careful now to have the middle fuller all the time, and that will, of itself throw out somewhat the top side of every bundle. If the tendency is to draw in too fast, lay one layer with the outside bundles laid as directed for those near the corners—long and short sides horizontal, and not up and down. When placing the outside sheaves, while drawing in, let the butts be struck on the ends of the laid bundles, as if they were being shocked, and then lay them down inward. This gives them a "catch" or hold on the lower sheaves and assists in preventing the top bundles from slipping out.

As you draw in, if these directions are followed, the middle will naturally grow higher in relation to the outside every layer. But if it does not, the stacker must remedy the matter, and see to it that the middle is *always* higher. There are two objects in this: One, it makes the work of stacking easier; the other, it gives a downward slant to every straw, so that water may run out and not in when rains come. The stacker will do much better work, and do it easier, if he will do most of it on his knees, treading with his knees on every bundle. This need not be done with the first or middle rows; but every sheaf after that ought to be laid as carefully as a mason does his brick or stone, chucked close up to its fellow and pressed in place by the full weight of the stacker.

The last layers or topping out ought to be nearly upright, and then, rye straw, or long hay laid carefully over the top and held fast, makes a good protection. The best weight we ever used is a straw or hay band, with a short stick at each end, thrown across the top of the stack about every three feet. The sticks need not weigh more than two or three pounds, their chief use being to lie still and hold the top

straws in place. And they need not extend down the sides far.

If you have no topping material and must use the wheat itself, it is better to break the bundles the same as if for caps or hudders on shocks and top out with these. If shock caps have been saved, they are better than freshly-broken bundles. A little long stick, like a broom handle or hoop-pole, on each end of the cap-sheaves, and these held in place by the weights, as before described, will hold the top on against all ordinary winds. All long stacks ought to be built north and south in Kansas because our strongest winds come from those directions, and all stacks of every kind ought to be built on land that drains itself, and in addition have a furrow or two drawn around it as a still greater protection against injury by rain-water running under the stack or by too much moisture remaining under it.

The same principles precisely apply to the stacking of hay. Begin the same way as with grain—in the middle; follow it up as with grain, always having the middle the highest and best tramped. Have the hay pitched or dropped on the middle of stack, and have necessary help to get it to the stacker when he is on the outside rounds. Build in layers. Scatter every forkfull, so that it will not lie in a lump like a bowlder, but flatly and evenly. Straighten out the straws as much as you can with the time at your disposal. This is a particular matter, and especially with the outside rounds. These must be laid carefully, so that the straws will form a thatching or roofing like shingles. If this is not well done, and little rolls and knots are left in the sides, when you come to dress off the stack to prepare it for shedding water you will find a great many little lurking places for rain and snow. It is not hard, with the aid of foot and fork to throw the straws into good shape. A little practice soon does the work. And it must be done if you would preserve the hay.

Widening out is done as with grain, but of course the eye must gauge the angle. And the stacker must be very careful in this operation. If the hay is short, it is better not to attempt to widen out at all. The same may be said with short oats. With short hay begin the size you want and go up straight to the shoulder.

Topping hay stacks, of the long and tightly-packing varieties, as timothy, the hay itself is all that is needed. Where one has some old hay on hand that is long and not too brittle, it may as well be used for spoiling on the top of the stack as the fresher and better hay.

If the hay or grain is dropped on the side instead of in the middle of the stack, the stacker must draw in faster on the side from the wagon, because, in settling, the stack will go to that side, it being less solid.

The American Fruit Evaporator comes to the front this week relying wholly upon its merits for public patronage. They are now in use in all the fruit growing counties of the State. Fruit raisers will always welcome the advent of such machines because by their use all fruit that otherwise would perish can be saved and utilized. The large sales of the American Fruit Evaporator, manufactured by the American Manufacturing Co., at Waynesboro, Pa., fully attests its popularity among its customers all over the United States. Look up their ad and write them for further information.

Boston and New England passengers should bear in mind that THE WABASH is the only line running a through sleeper from St. Louis to Boston.

Caution to Farmers and Dealers
For Safety in procuring your HARPOON HORSE HAY FORKS, select only those having thereon an imprint of our TRADE MARK, and thereby save infringement fees. Catalogues giving reliable information furnished free by M^{rs} and Prop^{rs}, A. J. NELLIS COMPANY, Pittsburg, Pa. Also, M^{rs} Nellis' Mounted & Floating Harrows, Agt^{'s} Steels, O'm'l Fencing, Road Graders, &c.

The Home Circle.

Rest.

Rest will be sweet in the evening, when the day's long labor is done—
Now I must be up and doing, for my work is scarce begun!

Peace may be dear to the veteran, grown weary of war's alarms—
But now I'm longing for battle, the clash and the clang of arms!

Death, by and by, will be welcome, if I have been faithful and true—
Now, there is life to be lived, and I have so much to do!

Once, in the early morning, when the dews were not yet dry,
In the misty summer morning, or ever the sun was high,

As I looked along the road whereby I must presently go,
And saw how great was the journey, how fiercely the noon would glow,

Life felt too heavy a burden, and I so weary and worn,

Weary before I had labored, and longing for night at morn.

Weary before I had labored; but labor has brought me rest,
And now I am only eager to do my work with the best.

What right have I to be weary, when my work is scarce begun?

What right have I to be weary, while aught remains to be done?

I shall be weary at even, and rest will the sweeter be;

And blessed will peace be to them that have won the victory!

But now is the time for battle—now I would strive with the best;
Now is the time for labor; hereafter remaineth a rest.

Children, ay, forsooth,
They bring their own love with them when they come,
But if they come not there is peace and rest;
The pretty lambs! and yet she cries for more;
Why the world's full of them, and so is heaven—
They are not rare. —Jean Ingelow.

Reconstructing a Face.

Achievements of science are wonderful—no less in the healing art, it seems, than in any other department. What follows is related by a New York *Herald* reporter:

Bertha Kistler, who for eighteen months has been under treatment by Dr. George F. Shrady, visiting surgeon of the Presbyterian Hospital, left the institution yesterday, a living, grateful monument of surgical ingenuity and skill. Bertha Kistler is now about 20 years old, and fifteen years ago she was treated by an unskillful surgeon in Germany for a supposed cancerous growth in the left cheek. The ailment proved to be of another character, but the operation destroyed all symmetry of the child's face, leaving a large hole in the cheek, and the mouth and nose frightfully distorted. Eighteen months ago the girl called on Dr. Shrady to see if anything could be done to remedy the deformity.

She was only a poor working girl, but begged to go to the hospital and pay for treatment by work. Dr. Shrady held out little encouragement to her, but at last consented to undertake the task of building up virtually a new countenance. Soon after the first operation was performed, and in the course of a year it was followed by sixteen others. Most of the face was made over by transplantation of flesh from adjacent parts.

The most important step in the treatment of the case was the filling up of the hole in the face. For this purpose a large skin flap was wanted. It was obtained by Dr. Shrady in the following manner. A rectangular section of skin was partially separated from the girl's left arm above the elbow. An incision was made in the side of the forfinger of the right hand, extending from the first joint around to the thumb. The hand was then brought over to the left arm, and the detached edge of the skin flap was sewed into the incision in the finger with fine silver wire. The hand and arm were kept immovable by plastic bandages. In about a week the skin-flap became united to the hand, but

the flap was principally nourished from the arm. To change the current of nutrition the flap was gradually cut from the arm, and when it had been nearly severed the finger, and not the arm, kept the skin-flap alive. When this became apparent the entire skin-flap was amputated from the arm. The hand, with this ingrown flap, was then brought up to the face, the scarred skin on the left cheek was raised and the flap was inserted underneath. The hand was kept in position by plastic bandages and a plastic cap. In three weeks the flap became attached to the face, the current of nourishment was changed by gradual amputation from the finger, and finally, when entirely separated from the hand, the skin-flap taken from the arm became the foundation of a new cheek.

With a natural anxiety Dr. Shrady watched the growth of the flesh, and at last had the satisfaction of demonstrating indubitably the feasibility of the transplantation of flesh from one part of the body to another by using the hand as a medium. New difficulties then arose. The surface of the face was then rehabilitated, but the girl's mouth was drawn out of shape to such an extent that the corner was almost directly under the nose.

To restore the mouth Dr. Shrady decided to enlarge it on one side and sew it up on the other, and after this was done the lips were cut into the true and proper shape and all traces of distortion had disappeared. With the success of this last operation, which made twenty in all, the labor was ended, and nothing was left but to await the healing of the incisions. These have at last become satisfactory and the girl's face is shapely once more, but, of course, slightly disfigured by scars. Most of these, however, are from straight, clear cuts, and it is expected that they will eventually become imperceptible.

From the first moment of her long martyrdom the girl has not faltered for an instant, but has ever been impatient for the next step. Sometimes the Doctor would try to persuade her to forego for a time the operation, but she persisted in her desire. A singular feature of the case is, that notwithstanding the suffering she must have experienced, she has grown very fat. She has been constantly the recipient of flowers, wines and delicacies of various kinds from people who, though strangers to her, have become interested in her singular and remarkable patience.

The gratitude she evinces toward Dr. Shrady is immeasurable. She is now in the most buoyant spirits, and is looking forward with delight to the prospect of attending a family gathering to take place next month.

The report of the case printed in the *Herald* three months ago has been copied all over the United States and Europe, and innumerable communications as to the condition of Bertha have been received from persons whose interest has been aroused.

In the Kitchen.

A well known caterer emphasizes this fact, that good salad cannot be made with cold boiled potatoes. He says that they must be cut up while the potatoes are hot, and that the parsley and onion, pepper and salt should be put with them at that time.

If you have a cold roast of beef and no gravy left, cut pieces of the fat off, with some little, browned, outside pieces; put them in a saucepan over a hot fire, and you will soon have a foundation for very good gravy, considering that it is not from the fresh roast.

A delicious side dish is made of apples and is called apple omelet. Peel and stew, stir in a large lump of butter, a little sugar and four well-beaten eggs; add fine bread crumbs and fry in hot lard, on a griddle, dropping from a spoon. If you have no stale bread use flour or cracker crumbs.

A high authority in cooking recommends that when baking a custard you should set the basin or pudding-dish containing it into another dish filled with hot water; this keeps the temperature more even, and the danger of scorching is entirely done away with. A more delicate flavor is insured also.

For breakfast salt mackerel is good if nicely cooked. After freshening it wrap it in a cloth and let it cook slowly for twenty-five minutes. Steaming is preferable to boiling. At the end of this time remove it to a hot platter, garnish it with hard-boiled eggs, cut in four pieces; cut them lengthwise first.

Pour a little cream, with pepper in it, over the mackerel.

An orange charlotte is made by lining a deep dish with sponge, precisely as if you were about to make charlotte russe, then cut up enough oranges to fill the dish, cut them in thin slices, sprinkle sugar over them, pour a rich boiled mustard over all, let it stand long enough to moisten the cake before sending to the table.

Ventilating Sick Rooms.

An infant, as soon as born, needs pure air more than food. And equally true is it, that the sick, exhausted by disease, need pure and fresh air. The sick need special care and many other things to which we refer in a laconic way, so that mothers, daughters and nurses may keep them constantly in view, when called to watch and benefit the sick. Always keep the air of the sick room fresh and pure and its temperature as uniform as is possible. The degree of temperature is of less importance than its uniformity. Opening the window so as to create a draft when the sick one happens to be warm and perspiring is not wise, nor safe. If they must be opened, and a strong draft of air be allowed to come it must check the perspiration, that is moistening the skin, and a large amount of harm must be induced. The sick room should be so ventilated that foul air may be constantly flowing out and pure air be as constantly flowing in. We know no better way of doing this than that of raising the lower sash four inches and fully filling the space with a half inch board, neatly fitting between the shoulders of the window frame. By this plan, the outer air will be continuously coming in between the upper portion of the lower sash and the lower portion of the upper. This arrangement will compel the outer air to pass in and up, and strike the ceiling of the room, lessen the draft and somewhat warm the air as it enters and passes up and down. As simple and efficient as this mode of ventilating sick rooms, living rooms, or school rooms is, a large per cent. of parents neglect it and compel their children to breathe vitiated air, or expose them to full blasts of cold outer air. A substitute is an open fire-place to draw the vitiated air away, if some means are adopted by which fresh air may flow in.

In cold, or chilly and damp seasons of the year, an open fire-place may answer every purpose. At any rate, every room in every house, occupied by the well or ill, should have an open fire-place to ventilate. Fresh air may be allowed to enter in various ways, but usually windows are so loose that the outer air will freely enter and drive the vitiated air away. What we insist upon as absolutely necessary to health, is that fresh air should be constantly entering those rooms that are occupied by the sick, and that fresh and chilly air should not blow directly upon the sick. A less efficient means of preventing this is to hang a shawl or blanket over an ordinary clothes horse and place it in such a way that the air cannot strike the patient. These directions may seem to be of trivial notice, and still every spring and autumn and winter ever give illustrations of the fact that neglecting the proper ventilation of sick rooms increases the amount of sickness and the percentage of mortality. If fresh air confers new life upon the strong and healthy, it is of special value to the exhausted and sick. The latter must be content with the reduced condition of the vital powers. They need the oxygen of fresh air that yields the aid of sustaining respiration.

The mother or nurse, then, cannot be too studious in ventilating the rooms of those who are entrusted to her charge. We have often entered a sick room, supposed to be sweet and clean, but we found as we entered from the outer air that the inner air was neither sweet nor clean. This sad condition conducted largely to render the sick child much more feeble and exhausted than it need have been and cut off many chances of the ultimate recovery.

We hope that those who have the care of the sick may not forget that the fire-place in a sick room should always be kept open, as no cheaper and better ventilation has yet been found than the chimney of an open fire-place, especially if the room demand the generation of heat. A fire in a room increases the draft and purifies the air.—C. H. Allen, M. D., in *Western Rural*.

The Chicago fire, October 9, 1871, consumed over \$200,000,000 worth of property.

Rural Life and Industry.

As Christianity was cradled in a manger, so our proud, branching materialization was born of a sensation and received its first impulse from the imperious cry of a physical want. Man is termed a feeding animal, and we are told that want is the spur that quickens his latent energies. But he who toils merely to eat and drink, to pick up bed and board out of nature, pastures upon the surface of things, and is not far removed from the instinct that prompts the four footed animal to crop the grass, or the hawk to pursue its prey. His firmament is a clouded sky, and no bright ideals of a better condition to sing him of the future. He who lives only for material gain, to add dollar to dollar, and acre to acre, is very little better off in soul power than he who lives solely for what he can eat and drink. But labor has a higher aim than merely to feed and clothe the body and add to our possessions, and that is to perfect our work. Through diversified agencies and with varied talent, one is called to work out his mission as minister of the Gospel, another to practice medicine, another to plow, another to plead law, and so on through the various callings and professions. It is a duty to ourselves and to humanity to do well whatever task is assigned to us. But there is a higher end to labor for than to excel in one's special art or vocation. It should do even more than this. It should ennoble the worker, enrich his mind, regale his imagination, elevate his aims and strengthen his principles.

The chief end of every vocation should be the fullest, ripest exertions of all who are engaged in it. Especially does this aptly apply to those engaged in agriculture. There are some elements of a noble manhood that country life and agricultural pursuits help to foster. We cannot too highly prize bodily energy, a robust constitution, good digestion and steady nerves. They are as essential to a well developed manhood as a deep, solid foundation is to a building.

Now it is happily the lot of the farmer to follow that calling, which perhaps more than any other furnishes the desirable elements of manhood, good health and physical vigor. Dwellers in rural districts are exempt from those tempting artificial irregularities that so often sap and wither humanity in large towns and cities. Saloons, gaming clubs and billiard rooms, with their brilliant lights and gorgeous attire, do not tempt the farmer at the close of the day to late hours and other dissipation. I am aware that rural life and industry, according to the common impression, is not quite so propitious a school for intellectual health and strength as it is to physical development. This may be true, but I am sure it is richer in resources for thought and mental vigor than many are prone to think. Another element I would mention is the love and appreciation of the beautiful. We are made to admire and to be pleased as well as to think, reason and analyze, and certain forms, sounds and actions are endowed with the power of producing pleasurable emotions. A good taste is the capacity of receiving pleasures which flow spontaneously from those objects that were intended by the Creator to be grateful and pleasing. This is too fair and large a domain of the soul to be left not wholly cultivated, and yet its gates are thought by some to be closed against the cultivator of the soil. "He has to deal with utility and not with the beautiful it is said. Hence it has become common to speak of country people as "rustics, bumpkins, clodhoppers and mudsills." The politicians call them "the bone and sinew of the land," a compliment equally due to horses and cattle.

Now, I am confident that rural life and industry are far more favorable to the development of the finer sensibilities than they get credit for. It is true the farmer has not the same access to academies of design or galleries of art and does not dally walk to his business under the shadow of sumptuous architecture as do the dwellers in cities. But then he dwells in God's studio, and can see infinite skill and perfection at work in the shaping of the clouds, and painting of the hills and fields in variegated hues and tints. For, after all, what is nature but the embodiment of Divine thought, the graceful and flowing vesture that enwraps ineffable beauty, order and harmony? Who then can say there is no beauty in rural life.—Mrs. T. S. Stadley.

The Young Folks.

The Baby Over the Way.

Across in my neighbor's window,
With its drappings of satin and lace,
I see, 'neath a crown of ringlets,
A baby's innocent face.
His feet in their wee, red slippers,
Are tapping the polished glass,
And the crowd in the street look upward,
And nod, and smile, as they pass.

Just here, in my cottage window,
Catching flies in the sun,
With a patch on his faded apron,
Stands my own little one.
His face is as pure and handsome
As the baby's over the way,
And he keeps my heart from breaking,
At my toiling, every day.

Sometimes, when the day is ended,
And I sit in the dusk to rest,
With the face of my sleeping darling
Hugged close to my lonely breast,
I pray that my neighbor's baby
May not catch Heaven's roses, all;
But that some may crown the forehead
Of my loved one, as they fall.

And when I draw the stocking
From his tired little feet,
And kiss the rosy dimples
In his limbs so round and sweet
I think of the dainty garments
Some little children wear,
And frown that my God withholds them,
From mine, so pure and fair.

May God forgive my envy!
I knew not what I said;
My heart is crushed and humbled,
My neighbor's boy is dead!
I saw the little coffin,
As they carried it out to-day;
A mother's heart is breaking
In the mansion over the way.

The light is fair in my window,
The flowers bloom at my door;
My boy is chasing the sunbeams
That dance on the cottage floor.
The roses of health are blushing
On my darling's cheek to-day;
But baby is gone from the window
Of the sad house over the way.

—Unknown.

How Wheat is Raised in Belgium.

The method of raising wheat in Belgium will no doubt be a subject of amusement to Missouri farmers; but before they make sport of it let them consider well the results. Belgium is the most carefully and elaborately-cultivated country in Europe, and the Belgian farmers raise larger crops per acre on their small, unfenced and finely-lined farms than are raised anywhere else. Farming there partakes of the nature of gardening; indeed, it would be called gardening elsewhere. Wheat is the important crop, and the management of it is particular to what other people would call an extreme. Seed is sown in the fall—spread broadcast and thick over rich and well-prepared plant-beds similar to those which Missouri tobacco-raisers prepare for tobacco seed. The young wheat comes up thick, rank and strong in the fall, and remains so all winter, forming a mat on the ground. In the spring the field is thoroughly prepared by deep plowing and harrowing; after which it is marked off in drills ten inches to a foot apart, one way. The wheat plants are then pulled up from the bed in bunches and carefully picked apart, one at a time, and dropped at distances of four to six inches in the drills in the field. After the dropper follows the planter, who with a trowel or thin paddle, makes holes in the drills at the proper distances, and sets out the separate plants in the same manner as strawberry, tomato and tobacco plants are set out. When the work is done there is a wheat field planted in drills one foot apart and with the plants six inches apart in the drills. It is a tedious and particular process, but on the small five-acre Belgian farms, worth \$300 to \$500 an acre, it amply pays for the trouble. The Belgian wheat fields after being planted are carefully cultivated between the rows by hand until the plants are too high to admit of further work. The plants branch into stools from each of which shoot up several stalks bearing heavy heads of grain; and when the harvest comes the yield is 100 to 150 bushels of grain to the acre.—*St. Louis Republican.*

THE OYSTER AT HOME.

His Anatomy, Habits and Feelings—How He is Dragged From Bed and Marketed.

[From the Philadelphia Ledger.]

ANATOMY OF THE OYSTER.

It may be of interest to very briefly describe the organization of an oyster. It is an animal incapable of decapitation, since it is destitute of a head. Yet it is not without that very necessary organ, a mouth. This useful organ, however, does not open, as might be expected, at the shell lips, but lies in the deepest part of the cavity, near the hinge of the shells. How then, does it obtain food? This is readily perceived. Along the body of the animal extend its gills, or breathing organs, in four plate-like folds, usually known as the "beard" of the oyster. These folds are studded with a multitude of cilia, or microscopic hairs, which are in constant motion, resembling that of the banding of a field of grass before the wind. This motion, which is directed inward, causes a steady inflowing current of water, which bears with it numerous microscopic food particles. The gills thus do a double duty. Their blood vessels extract the oxygen from the flowing water, while its contained food is carried to the mouth, into which it is drawn by other cilia.

From the mouth the food passes to the stomach, which organ is entirely surrounded by the liver—the dark-colored mass visible within the body of the oyster. This gland pours its secretion into the stomach, not into the intestines, as in higher animals. The intestine is not cylindrical, but forms a U-shaped tube, closely lined with cilia, which keeps the food in motion. In fact, in the whole range of animal life there is no creature of its size so sluggish as the oyster. Its only voluntary muscular action is that of the double muscle which is attached to the two shells, and serves to close them. They are forced open, when the muscle is relaxed, by the action of an elastic pad in the hinge. It is for this reason that the shells stand open when the animal is dead or when the muscle has been cut by the knife. This single muscular motion is, with one exception—that of the heart—the only one the animal possesses. All its other life functions are performed by means of cilia, the microscopic hairs which line the body cavities and keep up a ceaseless waving motion.

In the interior of the body are blood cavities and blood vessels, though the fluid they contain is colorless. It is kept in motion by means of the heart, a pulsating muscular mass, which lies in its course. The only other organ of which we need here speak is the mantle. This is a wide fold of the outer skin, found in all shell fish, and which performs the important duty of forming the shell. It secretes carbonate of lime from the sea water, and deposits it on its surface, thus gradually building the hard, limy case which forms the home and armor of defense of all the lower mollusks.

HABITS OF THE OYSTER.

The oyster is decidedly a "stay at home." Like many young folks, indeed, it goes on a ramble in its early life, swimming about by means of cilia. But this "errant disposition" only lasts for a day or two. Then the young vagrant settles quietly down, glues its shell fast to the most convenient object, and spends all the remainder of its long life in the luxurious duty of "to eat and to grow fat." Its food consists of the minutest tenants of the water, microscopic beings, plants and animals, such as a powerful lens reveals by millions within the roomy habitation of a drop of water. In fact, it has no hesitation to play the cannibal, since Mr. Ryder has found no less than 200 larval oysters within the stomach of an adult, gulped down at a single meal.

The oyster grows slowly in the early days of its existence. At the end of a fortnight's growth it is of the size of a pin's head. After three months it attains the size of a pea. After that period it grows more rapidly, the European oyster becoming half an inch, the American an inch long in six months. The American oyster indeed grows much faster and attains a considerably greater size than its European cousin. It is ready for market in about three years, and its average life period is about ten years, though 30-year-old oysters are not unknown. Its age in fact can be made out with some difficulty by counting the annual layers of limy matter in its shell, just as the age of a tree is discov-

ered by counting the layers of wood in the trunk.

THE AMERICAN OYSTER BEDS.

The natural beds of the European oyster are almost completely exhausted, and dependence is there placed mainly on artificial beds. This is far from being the case in America, though artificial culture has been long since introduced. Of the natural beds may be mentioned that of Long Island Sound, which is fully 115 miles in length. Other prolific beds exist in the Chesapeake, and in the waters of Virginia, which State is said to possess 2,000,000 acres of oyster beds. Yet the most prolific of our natural beds is that on the coast of Georgia. Here the oysters exist in such vast multitudes as to form natural breakwaters off the coast firm enough to effectually resist the pressure of tides and waves. In this respect they may be compared with the coral reefs which surround many of the Pacific Islands.

Inward from the coast there extends a region of salt marsh of from twelve to eighteen miles in width, through whose flat expanse lazy rivers meander slowly toward the sea. Strangely enough these slow streams flow through banks of living oysters, which cling in multitudes to their sides and even invade the marsh region beyond. It is said that in some of these streams a 100-ton vessel might be fully loaded within a space of three times its own length.

OYSTER FISHING.

As to the methods by which oysters are taken it is hardly necessary to mention the familiar ones of the tongs and the dredge. The latter is the usual method, the dredge resembling a large iron claw, whose downward-bent teeth scrape the bottom of the sea or bay. To the claw is attached an iron-meshed bag large enough to hold two or three bushels. This instrument is dragged over the oyster bed by the force of vessels moving at easy sail, the clusters of oysters being torn loose from their clinging places by the claw and deposited in the bag.

There are other less known methods of taking oysters. At the island in Minorca, in the Mediterranean, they are dived for in the same method as pearl oysters are obtained. The diver descends to a depth often of a dozen fathoms, hammer in hand, and knocks loose with his right as many oysters as he can clasp in his left hand, with which he quickly rises to the surface. Thus two divers are kept going until their boat is filled.

An easier method is that pursued on tropical shores, where the oysters attach themselves profusely to the roots of the mangrove and other water-loving trees. These oysters are larger and finer than those on the bottom, and to obtain a plentiful meal it is only necessary to cut off a root with the blow of a hatchet, fling it over the shoulder, with the oysters clinging to it like grapes to their stem, and walk home shouldering a bushel of the juicy bivalves. The negroes of San Domingo have the habit of serving the oysters on their tables still attached to the roots, like grapes of the sea.

A singular method of oyster fishing is that practiced by the raccoon. This shrewd animal takes his stroll along the shore at low tide, looking for an oyster that has been deserted by the waves. On discovering one he waits quietly until it opens its lips, when in goes his paw. The shell instantly closes and nips the intruding paw, but this is just what Mr. Coon wants. He runs quickly ashore with his prize, smashes its shell on the nearest stone and devours his prey with all the relish of a human gourmand. Cases have been observed, however, in which the tables were decidedly turned. The oyster is sometimes too firmly fixed to be dragged loose, and in this case the adventurous coon finds himself in a sad plight. The oyster will neither come nor let go. The tide rises inch by inch. Slowly the unlucky oysterman is overwhelmed by the swelling waves, and loses his life in his effort to obtain an epicurean meal. It is a marked instance of "the biter bit."

The fishing proclivities of the raccoon are not confined to the oyster. The cunning creature goes crab-fishing in a somewhat similar manner. For this purpose it uses its tail as a fishing line, drops it into the water, and waits quietly until some investigating crab makes an assault with its nippers on the living bait. Instantly the tail is jerked out of the water, and usually the crab with it. As to the subsequent fate of the verdant crab nothing need be said. It can be left to the reader's imagination.

This, That and the Other.

The first Sunday school was established by Robert Raikes in England in 1781.

The first theater in the United States was opened at Williamsburg, Va., in 1752.

The successful physician is one who is able to hit an ail on the head every time.

When a bibulous sailor is sent to jail he speaks of it as being "run into dry-dock."

We hear occasionally of civil engineers, but how is it we never hear of civil brakemen?

It is a long lane that has no turn, but the average paper collar comes to it about Wednesday.

The first volunteer fire company in the United States was organized at Philadelphia, in 1736.

A little girl in church, after the contribution box had passed, complacently said: "I paid for four, mamma. Was that right?"

Between sobs, this morning, Tommy Tripp confidentially informed us that his father was a tailor but his mother did the basting.

"Pat, remember you owe me a shilling." Pat—"I will never forget it, your honor, and may your honor live in health till I pay you."

An Indian prince has had a throne made of solid glass. It will now be possible to see the power behind the throne without any trouble at all.

"I don't like this pepper," said a man to a waiter in a restaurant. "There are peas in it." "Why, that's nothing," replied the waiter, "pepper is always half p's."

A new machine recently put in use at the Swedish match factory in Jonkoping makes 1,000,000 boxes of matches a day. The wood brought to Jonkoping last year to be made into matches filled twenty steamers and eight sailing vessels.

40 LARGE CARDS. Imported Design, name on and Rolled Gold Ring for eight 2-cent stamps; 6 packs and Ring 50 cents. ACME CARD FACTORY, Clintonville, Conn.

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J. H. Bean & Son... Bean's Hay Stacker.

We are in receipt of the report of the
American Pomological society for 1883.

In the Southern part of the State
wheat harvest will commence in about
two weeks.

If you see any rye heads in the wheat
field when you desire to sow your seed,
pluck them out.

Nothing new in the wool market.
Prices still low and no prospect of an
immediate advance.

All flesh is grass. Let us put all the
grass we can into flesh. A load of flesh
is worth a great deal more than a load
of grass.

The letter of Dr. Holcombe, State
Veterinarian, which we publish in an-
other place will pay for a careful pe-
rusal and study.

If grape vines grow too vigorously,
pinch off the leader. That will check
the lineal growth some, and start the
lateral branches.

Watch the apple trees now, particu-
larly the younger ones and near the
ground. Kill every insect you find
about the trunks and leaves.

Do not let the wheat get too ripe be-
fore cutting. When the berry is well
filled out, it does not hurt to cut green.
It ought to be out of milk, but not
hard.

At the Gentleman's Driving Park,
Philadelphia, John S. Prince, the cham-
pion bicyclist, and the trotting horse
Scotland had a ten mile race and the
horse won. Time 36:33.

At the National Republican Con-
vention last week, James G. Blaine, of
Maine, was nominated on the fourth
ballot for President, and General John
A. Logan, of Illinois, on the first ballot
for Vice President.

If you see the track of apple tree
borers, or borers in any of your trees,
take a sharp knife and clear away the
outside bark where the insect has
worked, and then with a light wire
probe the hole and destroy the worker.

The quicker hay is cured the better.
It ought to be in stack or barn the
evening of the day that it is cut. With
some varieties of grass, clover for in-
stance, this can not often be done; but
with timothy and red top, there is no
trouble in drying.

When grain is cut, get it into stack or
barn as soon as possible. Don't lose an
hour. Wheat is worth saving, and a
little carelessness may result in the loss
of a crop. Rains may come any day,
and they may come so often and so close
together, that it is a very difficult, if
not impossible thing to dry it and get it
housed before it is spoiled.

The National Cattle Bill.

The Senate amended the bill as it
passed the House. As amended, it was
then returned to the House for con-
currence which was obtained. The
principal amendment made is the one
prohibiting the Commissioner of Agri-
culture, who is the head of the bureau,
from applying any part of the appropria-
tion (\$100,000) toward paying for the
animals which it may be found neces-
sary to slaughter in order to prevent the
disease. In other words, his functions
cover only two points—first, investiga-
tion; second, arrest of disease by disin-
fection and the quarantine of commerce
in cattle between the States. The bill
is thus rigidly confined within the limits
of constitutional jurisdiction and a safe-
guard provided against jobbery by sell-
ing sick cattle to the government on the
pretext that they were suffering from
an infectious disease.

The Chicago *Inter-Ocean*, discussing
the bill, says: "What are really needed
are these two things: 1. A correction
of the false reports of cattle disease, in-
cluding a safeguard against such reports
in the future. 2. A quarantine that
shall protect the herds of the West
from the infection of diseased live stock
from abroad, and by abroad we mean in
this connection the seaboard States as
well as foreign countries. Our native
strains of 'The Wild West' are as
sound as an army mule, while the pam-
pered blooded stock accustomed to
stable life are more or less liable to ail-
ments. Cattle are very much like folks
in this respect. For sound physiques
one does not go to the fashionable
clubs and elegant drawing-rooms of the
metropolis, but to the rural districts,
and the more rural the better.

If for any reason it should be neces-
sary for the General Government to
slaughter infected live stock, it may
well be doubted if the Bureau of Animal
Industry would be the suitable court of
claims for allowing the owners proper
compensation for the losses suffered for
the common good. A really infected
animal is worth only its hide and soap
grease, and the owner could have those
properties after it had been killed,
skinned, and rendered. We do not an-
ticipate any trouble on that score.
Very likely the bill will need some
alterations, in the light of experience,
but as an experimental measure it must
in all fairness be pronounced as judi-
cious as it is timely."

This bill is another evidence that
farmers' interests, when properly pre-
sented will have attention in Congress.
Senator Plumb, of Kansas, did good
service in this matter. Indeed Mr.
Plumb is doing good service generally.
The Cattle bill, even if it were less per-
fect, would be some protection to our
farmers; because, whether true or false,
the charges that we have contagious
diseases among our cattle injures our
trade and unfavorably affects our prices.
Any honest legislation will be evidence
that we desire to protect ourselves
against dangerous diseases, and if we
are guarding our own interests, we in-
directly protect commerce. This bill is
a beginning, and we think a good begin-
ning. It will show our good faith
among ourselves and that will give con-
fidence to others.

Leaves of fruit-bearing plants need
special attention now. Insects collect
on the leaves and deposit their eggs.
By destroying these we save trouble in
later times. Where a leaf is badly
eaten and has little black or brown eggs
plastered on the veins or frame-work of
the leaves, or where the leaf is curling
and eggs are hidden away in white webs
better just pluck off the leaf and burn
it. It is well, in going about on this
errand to have a sack or bucket on one

arm or thrown over the neck, in which
to throw all collected leaves. The
whole lot can be burned at once.

Request for Information Concerning Insect Depredations.

In order to secure the greatest practi-
cal benefits of entomological science to
the farmers and fruit-growers of the
State, the State Board of Agriculture
respectfully requests that information
in regard to any and all insect depreda-
tions which may occur during the en-
suing season, be sent at once to the En-
tomologist of the Board, Prof. F. H.
Snow, Lawrence, Kansas. The infor-
mation should be accompanied, when-
ever doubt exists as to the species, by
specimens of the insect committing the
depredation, together with as full an
account as possible of the character of the
depredation, whether it be upon the
leaf, the stem, the root, the flower or the
fruit of the plant attacked. The insects
should be sent alive, if possible, and may
be safely committed to the mails if in-
closed in a stout pasteboard box (like a
troche box), or in a small tin or wooden
box. The postage on such packages is
only one cent an ounce, if no writing be
inclosed. The name or initials of the
sender should be written upon the out-
side, together with the address; and a
full account of the insect and its work
should be sent by letter, in the same
mail. Prof. Snow will furnish, from
time to time, papers concerning noxious
insects and how to destroy them, for
publication in the reports of the Board,
which are distributed to all parts of the
State, and which will be sent to all
those furnishing information on this
subject.

R. W. JENKINS, President.
WM. SIMS, Secretary.

Effect of Continuous Cropping.

If a forest is cut away and all the
timber and brush removed, we see that
great quantities of matter both in bulk
and weight are removed from the
ground. The soil on which it grew was
the medium of an enormous growth. It
required many years to produce that
growth; all the benefits of sunshine and
rain and frosts were continuously ap-
plied. Nothing was ever removed.
The rains came and were appropriated;
the leaves fell and rotted on the ground.
But now that the forest growth is re-
moved, something else will grow—weeds
if not useful grain or grasses.

Continuous cropping will impoverish
the best soil. All that grows and ma-
tures on ground does not come from the
soil. Burn the forest and what is left
in ashes shows about what came from
the earth. All the rest is smoke-
gasses. It is because of this fact that
although land is heavily cropped, yet if
crops are varied, and if the land is fre-
quently and well manured, and is
allowed to rest occasionally, the soil
will improve in fertility.

Besides the mineral substances which
are left in ashes when the crop is
burned, there are other substances of a
gaseous nature that were generated in
the soil and assisted in the growth of
vegetation. This exhausts the soil to
the extent of the elements absorbed and
removed. Unless similar substances
are given to the soil it must in time be-
come sterile. Every experienced farmer
has seen land wear out by continuous
cropping. It matters not what the
crop is, the result is the same; land
will become poor if crops are removed
every year and nothing returned to the
soil and no rest given to it.

Crops ought to be varied from year to
year, and all the hay and fodder grown
ought to be fed on the land and the ma-
nure worked into the soil. Once in
four or five years a grass crop ought to
be plowed under. Nothing is better for

this purpose than clover. Rye is good
and so is buckwheat. Grain and grass
ought to be put into pork and beef.
Nothing bulky ought to be sold from
the farm when it can be avoided. Let
it all be used at home, and as much as
possible of it put back on the land.
Part of every farm ought to be manured
every year.

Sunlight in Barns.

Farmers, when building barns, do not
give enough attention to the matter of
light. A horse, a cow, any domestic
animal, needs light as much as men and
women do. If one would know some-
thing about the effect of light on vege-
table life, let him undertake to grow
something in the dark. If it grow at
all, it will be thin and white. Remove
it into sunshine, or remove coverings
and let light fall upon it, and in a short
time the form and color will change.
Light and darkness are common condi-
tions and men and animals—indeed, all
animal and vegetable life, are made in
harmony therewith. If an animal is
kept continuously in darkness, it loses
health and its sight soon becomes de-
fective. The same thing, on smaller
scale, happens in case of dark stables.

We have the report of an experiment
made with a calf some years ago as
follows:

We had two deep-red calves of the
same age (60 days), one weighing 180 lbs.
and the other 182 lbs. The latter we
placed in a dark room, with a trough
that could be filled by a spout through
a partition. The other was confined in
the same amount of space, but in full
light, and fed exactly alike for the next
three months. The object was to test
the effect of light upon such a growing
animal. At the end of the time, the one
in the light weighed 430 lbs. and the one
in the dark weighed 360 lbs.; and its
color had faded to a very pale, dirty red.
Its eyes were so much affected when ad-
mitted to the light, that it kept them
closed most of the time, for the first
week or two. The two calves were kept
on together, but the one from the dark
room never fully recovered from this
three months of darkness. It never re-
covered its bright red color, although
the color improved. Any one who
noted these two calves, during this ex-
periment, would never after doubt the
impolicy of a dark stable.

Every barn ought to be lighted, not
so as to produce a glare in the stalls;
but sufficient to maintain a natural and
comfortable condition of the animals as
to sight. Every stall ought to have one
small window, and that ought to be so
arranged as to prevent the sun's rays
from shining directly in the animal's
eyes. This can easily be done by pro-
tecting shades or blinds. The feed
rooms and halls, all ought to be lighted.
Sunlight is healthy. It is a good tonic
and health restorer.

Kansas farmers will not always raise
wheat for market. One acre of apple
trees is worth ten or twenty acres of
wheat stubbles. One good ox is worth
five acres of wheat. One good fat hog
is worth one acre of corn. One hun-
dred fowls well handled are worth more
than a quarter section of some men's
lands. The point is, that we must learn
to condense our crops—raise wheat,
corn, rye, etc., for use in making things
more profitable and less costly to get to
market.

We have received from the Zimmer-
man Manufacturing Co., of Cincinnati,
a handsome catalogue which explains
fully the merits of their Fruit and Vege-
table Evaporator. Any one interested
in the industry will receive the cata-
logue free by writing for it. It contains
valuable information.

Subscription Agents, Publishers, and
Postmasters, please preserve the cards,
we send you, and encourage the
FARMER by sending us a large number
of subscribers each for one year.

KANSAS CROPS.

As Reported by the State Statistical Agent to the U. S. Department of Agriculture.

Mr. J. M. McFarland, the Kansas State Statistical Agent of the United States Department of Agriculture at Washington, last week forwarded his monthly report of the condition of crops in this State, which is as follows:

TOPEKA, KAS., June 2, 1884.

Hon. Geo. B. Loring, Commissioner of Agriculture, Washington, D. C.:

SIR: The month of May has been remarkable this year in Kansas for low temperature and heavy rainfall. While these conditions have retarded general farm work and have not been at all favorable to the growing corn, yet small grains have thrived wonderfully under their influence, except in a few instances. In a few of the southeastern counties the chinch bug is doing damage to both wheat and oats, and in two of the east central counties "chess" has appeared in wheat fields and will reduce the yield there materially. There have been no adverse conditions as to winter wheat in the central counties, where nearly two-thirds of the area lies, but a steady advance in condition and prospect is noted. The damage done by insects and the loss occasioned by the appearance of "chess," as noted before, is confined to narrow limits and affects the general average condition but slightly.

The plant is just beginning to head in northern Kansas, and, as compared with an average season, is two weeks late. The plant is not so tall as is usual in Kansas at this time, but the stand is exceptionally good. The average condition for the State remains the same as last month (103), but would have advanced one point at least if it had not been for the adverse conditions reported in the sections named before. The rye area has not suffered from any of the causes affecting winter wheat, and has an average condition of 105.

Although spring wheat has not proved a satisfactory crop in Kansas, and has been constantly decreasing in area since 1878, when there were 430,000 acres in cultivation, the unusual amount of moisture this spring induced an increased area. The increase in area over last spring has been about 9 per cent., making a breadth of 7,000 acres, which is confined almost altogether to the northern tier of counties, bordering on the State of Nebraska. The average condition is 101, although sowing was from two to three weeks later than usual. The plant is now growing rapidly and promises a good yield.

In common with all other small grains barley has increased in area. Barley has not been a favorite crop with Kansas farmers, owing to the lack of a satisfactory market. The area has advanced from 18,794 acres to 22,553 acres, or an increase of 20 per cent. The average condition is 104, and the crop promises a satisfactory yield.

The large crop of oats harvested last year encouraged our farmers to sow an increased area. The increase as compared with the acreage of 1883 is 17 per cent, or an advance from 699,486 acres to 818,397 acres. The crop was sown late, but in the majority of counties is in good condition.

Chinch bugs in the southeastern counties are doing some damage to the crop, and are reducing the general average. The average condition for the State is 101.

The cultivation of tame grasses has received of late an extraordinary impetus, and the acreage of clover has increased over that of last year. The area of clover in 1883, as returned to the

State Board of Agriculture was 53,403 acres. The reports of my correspondents make the increase over last year 13 per cent, which gives an area for 1884 of 60,345 acres. There is but a small tame-grass area beyond the eastern half of the State, and probably four-fifths of the clover acreage lies in the eastern third. The average condition for the State is 102, and there are no adverse conditions reported. The varieties of tame grasses most generally grown in Kansas are, timothy, clover, blue grass (English and Kentucky) and orchard grass. While the great bulk of this area lies in the eastern third of the State, the farmers of the central and western portions are making every effort to solve the question as to the adaptability of the soil and climate to the growth of the several varieties of tame grass. Unqualified success has been met with this year, but the conditions have been much more favorable than exist in the average year.

Spring pasture is exceedingly late in all portions of the State, but is now affording an abundance of good grazing. The average condition is 100, there being no portion of the State where the condition is poor or only medium.

The average condition of apple trees is 99, being the best prospect for a crop the State has ever had. There are but few apple trees in bearing beyond the eastern third of the State, orchards beyond the limit mentioned not yet having attained sufficient age. Apple trees in the western portion all wintered in good condition.

But a few counties in the south central portion of the State will produce a crop of peaches. The counties of Barber, Cowley, Harper, Kingman, Sedgwick, Stafford and Sumner will have a full crop; the counties of Harvey, Reno and Rice will have from three-fourths to four-fifths of a full yield. A few counties in addition to the ones mentioned may have a very few peaches, while the entire northern half of the State will raise none. The severe cold of an unusually protracted winter killed the peach buds in the great majority of counties, and in some localities the trees themselves were destroyed. There will be about one-tenth of an average peach crop in the State.

The continued cool and wet weather is seriously menacing the corn crop. In some sections of the northern portion corn has not yet been planted, and unless the weather should become propitious, the corn area of last year will be materially decreased. In a few of the central counties much replanting has been and will still have to be done, owing to the continued wet and cold weather causing the seed to rot.

SUMMARY.

	Condition.	Comp. Acreage.	Acres.
Winter wheat.....	103		
Winter rye.....	105		
Spring wheat.....	101	109	87,000
Barley.....	104	120	22,553
Oats.....	101	117	818,397
Clover.....	102	113	60,345
Spring pasture.....	100		
Apples.....	99		
Peaches.....	10		

Very respectfully,
J. M. McFARLAND,
S. S. Agent for Kansas.

In the annual estimate of the winter wheat crop of this country in 1884, made by S. W. Talmadge, of Milwaukee, he puts California first at 46,500,000, and Kansas second, at 34,500,000. Of spring wheat he puts Minnesota first at 38,000,000, and Nebraska second at 31,000,000. Total spring wheat in all the States, 141,000,000; total winter wheat in all the States 375,000,000; grand total for the country 516,000,000 bushels.

Among the interesting information contained in Mr. McFarland's report on the crops of Kansas is the fact that

there are no indications anywhere of loss or decrease in rye. The condition everywhere is good. This shows that rye does well in Kansas.

Gossip About Stock.

G. F. Miller, living about one and a half miles west of Topeka, lost a thoroughbred Jersey cow by death last week. The animal was valued at \$1,500, was raised in Pennsylvania, and brought from Iowa.

One of our correspondents writes from Plattsburg, Mo.—"The Clinton county sale here to-day and yesterday was a success. Clinton county is bound to reverse the tendency of the trade in other places by increasing her average from year to year. In 1883, 109 animals averaged \$138; 1884 sees an average of \$152.44, made by ninety-four animals—the cows making \$187.16, and the bulls \$128. As usual the stock was in fine condition and the bidding was wholly free from that depressing slowness observable at several of our spring sales."

June 7, the New York Jockey club reports—Race for three-year-olds, one mile, won by King Ernest, Ecuador second; time 1:46½. Half mile race, won by Richmond, Tecumseh second, Petition third; time 50 seconds. Mile race, all ages, won by Haledon, Caesar second, Thackeray third; time 1:48. Jockey club handicap, mile and three-quarters, won by Hartford, Skinny second, Eolus third; time 3:12½. Mile and a quarter, all ages, won by Wall Flower, Trafalgar second, Gifford third; time 2:17. Steeplechase, full course, won by Echo, Abraham second; time 4:13.

From the Covington races we have report of 7th inst.—The first race, 1¼ miles, won by Kosciusko, Ferg Kyle second, Admiral third; time 2:17. Five furlong race for maiden two-year-olds was won by Falconer, Gold Ban second, Leipsic third; time 1:06½. Mile and a half race, won by Foster, Vanguard second, Zamora third; time 2:45½. Hurdle race, mile heats, four hurdles, given to Palanca, although Callao finished the first and disqualified jockey H. Walker for sixty days. Stigmar stakes for three-year-old foals of 1881, mile and three furlongs, starters Gen. Harding, Loftin and Swinney. Loftin was never headed, winning easily by two lengths, Swinney second, Gen. Harding pulling up third; time 2:33.

Rye for Hay.

The experiment of cutting rye in Russell county, as mentioned by a correspondent this week, is news that we are very much pleased to publish. Rye makes good hay, not as good as timothy or clover, but much better than wild prairie grass and a great deal more of it. We are pleased because it shows enterprise among the farmers in the way of experiment. It is evidence that our western tillers are solving the problem of agriculture. Readers of this paper, know that we have been urging experiments with rye and sorghum because they are both easily and cheaply grown, will withstand drought well, and yield large crops of excellent feed.

This experiment will lead to others with rye. It will be used for soiling and for manure; and it will be matured and used for feed for animals and flour for the farmers' family. And still another line of use—pasture. Calves, sheep, corns, colts, hogs, all do well on rye pastures. It is as good as orchard grass and nearly as good as clover for pasture.

We hope our correspondent will keep us posted on this rye hay experiment, as well as upon all other new grasses in his section. We believe that in rye and sorghum largely lies the success of agriculture in Western Kansas. Let every farmer help along the tide of experiment.

A Cattle Shed.

We respectfully ask attention to the following letter, and we hope some of our readers who have had experience will give the writer the benefit of their experience.

LETTER.—Will some one, through your paper, give me a plan for a cattle

shed, sufficient to shelter about one hundred head? I do not want any thing expensive, but substantial and economical, with, perhaps, the south side open. SUBSCRIBER.

THE MARKETS.

By Telegraph, June 9, 1884.

STOCK MARKETS.

Kansas City.

The Live Stock Indicator Reports:

CATTLE Receipts since Saturday 1,302 head. There was a better feeling to the market to-day for all classes; but trade was limited in proportion to the receipts, owing to a large number having been consigned through. Sales ranged from 4 10a5 75.

HOGS Receipts since Saturday 4,443 head. There was a firmer and more active market to-day at an advance of 10c over Saturday's prices. Sales ranged 4 9a5 20, bulk at 5 00a5 10.

Chicago.

The Drovers' Journal reports:

HOGS Receipts 14,500. Market brisk and 10a 15c higher. Rough packing 5 10a5 50, packing and shipping 5 50a5 75, light 5 10a5 65.

CATTLE Receipts 5,500. Market slow and dull, grass cattle 10a15c lower. Exports 6 50a6 35, common to medium 5 10a6 00.

SHEEP Receipts 1,400. Inferior to fair 2 50a 4 00, medium to good 4 00a4 25, choice to extra 4 25a5 00.

The Journal's Liverpool cable reports market dull and lower with heavy supplies. Best American feeders 15c dressed.

St. Louis.

CATTLE Receipts 2,200, shipments 1,300. Supply poor quality. Market weak and slow. Exports 6 75a7 00, good to choice shipping 6 20a6 70, common to medium 5 50a6 10, corn-fed Texans 5 25a6 00, grass fed 4 25a5 00.

SHEEP Receipts 4,500, shipments 500. Market weak and glutted; natives 2 25a4 50, Texans 2 00a 4 00.

New York.

CATTLE Beeves, receipts 5,000. Market weak at 20c lower. Car load common Texas steers 5 00; other sales, steers 5 90a7 50, general business 6 30a 7 25.

SHEEP Receipts 10,000. Sheep firmer at 3 75a 6 00, lambs easier at 7 00a8 75.

HOGS Receipts 7,600. Nominally steady at 5 00a5 60.

PRODUCE MARKETS.

Kansas City.

The Daily Indicator reports:

WHEAT There was a dull and weak market to-day on 'change. Cash No. 2 red was nominal and June sold at 79c, cash No. 2 soft sold at 92c.

CORN The market to-day again lacked strength and cash No. 2 mixed was nominal, June sold at 44½c.

OATS No. 2 cash and June no bids, 31c asked, July no bids, 28c asked.

RYE No. 2 cash no bids, 53c asked; June no bids, 51c asked.

Price Current Reports:

BUTTER Store goods are active and firm at quotations. Dairy is weak and lower. Creamery is dull.

We quote packed:
Creamery, fancy..... 16a17
Creamery, choice..... 14a15
Choice dairy..... 11a12
Fair to good dairy..... 9a10
Storepacked choice grass..... 8a

CHEESE We quote eastern out of store: Full cream: Young America 15c per lb; do twin flats 14c; do Cheddar, 13c. Part skim: Young America 11a12c per lb; flats 10½a11c; cheddar 9a9½c. Skims: Young America 9a10c; flats 8½a9c; Cheddar 7a7½c.

EGGS Supply very light and market ½c higher and firm at 12c.

NEW POTATOES We quote new southern consignments 3 bbl 3 00a3 25.

BROOM CORN Common 2a2½c per lb; Missou ri evergreen 4a5c; hurl 6a7c.

SORGHUM: We quote consignments in car loads: Dark 18a20c, bright 22c.

Chicago.

WHEAT Quiet and unsettled, lower. June 88½a89½c, July 90½a91½c.

CORN Quiet and steady. Cash 55a55½c.

OATS Steady, cash 33a33½c.

RYE Firmer at 64c.

BARLEY Nominally at 62a62½c.

FLAXSEED Firm at 1 58.

St. Louis.

WHEAT Lower and slow. No. 2 red 1 03a1 03½c cash, 93a93½c June, 95½a96c July.

CORN Lower, market inactive 51½a53c cash.

OATS Lower and dull, 31½a32c cash.

RYE Quiet at 57c bid.

BARLEY Dull at 61a60c.

New York.

WHEAT Cash firm. Options opened better, closing lower. Receipts 87,000 bushels, exports 172,000. No. 2 Chicago 97c, store 99c delivered, ungraded red 81a83½c, No. 3 red 97½c, No. 2 red 1 02½a1 03½c.

CORN Receipts 178,000 bushels, exports 60,000. Ungraded 58a63½c, July 63a63½c.

In the Dairy.

Breeding and Feeding Calves.

By J. F. True, in Quarterly Report of State Board of Agriculture.

How best to breed and feed our calves, a matter of no little importance to the farmer. In settling this question we must first determine for what purpose or market we design them. This matter settled, we next determine to what age we will keep them, the quality and quantity of food we will give them, etc.

We will first consider the matter of breeding, feeding and caring for our heifer calves that we expect to keep on the farm as breeders. A matter of importance is as to the best time to have them dropped as far as we can control in that regard. I prefer the months of February, March and April, for two reasons, one of which is they will at that season of the year—the cow being on dry feed—be able to take all the milk an ordinary cow will give when very young. With one or two months' age, they will be able to take all the milk an ordinary cow will give on good grass, providing the cow has never been used as a milker. Besides, it is a well-established fact that any cow, whether in the dairy or only raising her calf, will give a good flow of milk for a much longer period of time when coming in near the middle of winter, for the reason that the flow of milk is greatly increased by new grass, even though she has been in milk for several months. Heifer calves of the beef breeds coming at such time, with all the cow's milk, will readily weigh on an average 550 pounds by the first of October, when they should be separated from the cows and put on good grass, and allowed to suck twice a day for three weeks, at the same time giving them a small amount of shelled corn, that they may learn to eat and like the corn before their ration of milk is taken away, and before winter sets in. If designed to dry cows up, they should be run on pasture that will not make too great a flow of milk, as it is the quality of pasture or feed generally that determines the quantity of milk cows will give.

After the calves have learned to eat grain, and have become accustomed to be away from the cows all day, they can readily be weaned without checking their growth, by keeping up the feed of grain. The model ration for a calf of this age, after he is weaned, is equal parts by measurement of shelled corn, oats and bran. Bran may be added in small quantity to the corn before the calves are weaned, but oats at that time are liable to scour them. Of this ration, would feed enough on good pasture to fully keep up the calf flesh and growth until Christmas, or if the winter is severe, till the 1st of February. Four quarts a day will be sufficient, when, for the sake of economy and to prevent their coming in heat too young, I should keep them either in good pasture of stalk-fields, with a daily feed of millet hay, or a small amount of corn, oats, and bran—two quarts is sufficient—until you can turn them on good grass in the spring. Kept in this way, they will almost invariably take the bull in time to drop the first calf by the time they are two years old, which is the best age. If continued high feeding on grain had been kept up during winter, your heifers would many of them be bulling every three weeks after they were ten to twelve months old, until time to breed them, which would be damaging in many respects. It might prove dangerous if you have them with heavy cattle, and they may form a chronic

habit of bulling, which habit they may keep up after you have bred them. I have never seen this idea advanced in print, but under my observation am satisfied it has occurred.

We have been speaking of the mode of keeping early heifer calves; but all breeders know it is not an easy matter, in fact is impossible, to have all your calves dropped at time desired. If the farmer succeeds in getting 80 or 85 per cent. of calves from his cows at any time in the year, he is fortunate; so that those that will not come in the latter part of the winter, as we prefer to have them, we will be glad to catch at any time—especially if we have a lot of well-bred cows, and are expecting from each cow yearly a calf worth a round hundred or more.

Heifer calves dropped later should be allowed to suck later as to age. Those of late summer should suck all winter, and should have a more bountiful supply of good feed. By this means they can be forced in growth and development, including capacity and inclination to take the bull during July or August of the year after they are calved, even if not over ten or twelve months old. For example: July, August or September calves may be forced in development so that we may breed them at such time that they will drop a calf at the following rising of grass after they are one year old. Such heifers should always be dried off when the calf is dropped, by giving them nothing to eat but hay, poor to middling in quality, for one week after calving. The calf may be put on an older cow with her own calf. A cow thus treated will often show heat in seven to ten days; of course we would not breed them so soon. Such treatment under my observation, has not affected the milking qualities, after other calves have been dropped. Handled in this way, the heifer that was the late calf of something less than two years before, will by the next rising of grass most always produce her second calf in as good season and be as able for the work of producing and raising it, as the big strong early heifer, that had suckled her own calf the summer before. Even when early heifers by some mishap have a late calf, it is best to raise the calf on another cow, and dry them off, to insure their coming in on good time the following spring. Two-year-old heifers, suckling late calves, most invariably go over the winter without coming in heat, or at all events would be too late the next summer to raise the most profitable calf. The producing the calf does not check the growth of a young heifer one-tenth part as much as the suckling of it; in fact it does not retard the growth at all, if well cared for.

The mode of keeping heifer calves is also the best for steer calves, if you want to keep them to three years old before marketing. The late steer calves, as the late heifer calves, should have high feed all winter to insure their maturing for market at the same time as the early steer calves, as plenty of good nutritious food is a wonderful help to early maturity with cattle of all breeds, or "of no particular breed."

If the bull calves are retained as breeders—as most all thoroughbred and many of the best high-grades are, of all the beef breeds in the West—you cannot develop them too rapidly, as they are put to hard service at fifteen to twenty months old as a rule, and are generally taxed to their utmost capacity. About a year since, I saw a statement in point by John D. Gillett, of Illinois, to the effect that he thought a bull calf fed but little grain and developed slowly, would make a better animal than one crowded by high feed on grain; but notwithstanding this

opinion he was in the habit of full-feeding on grain bull calves intended for ranch trade, as ranchmen seemed to want them fat in the spring. We all know what Mr. Gillett's "fat" means. For the purpose of learning the most profitable way of feeding bull calves intended for ranch purposes, I have asked a great many ranchmen what condition they thought best for a lot of yearling bulls for their purpose. The invariable expression has been, "I want them well developed and fat." Last spring I was selling bull calves that had been well kept, to a Dakota ranchman, and asked his opinion of their value to him as they were, or in the condition that would have resulted from lighter feed and slower development or with lighter flesh. He said he thought them much better as they were; that he had once used a lot of yearling bulls bought of Mr. Gillett that had been very highly fed on grain, and said they were the most vigorous lot of bulls he ever saw; that one of those bulls would whip a three or four-year-old steer when necessary, and said they did excellent service for several years. With cattle-men who have given this subject thought, there is no doubt that high-feeding for several generations of any breed of cattle improves that particular breed as flesh-formers, and gives them a tendency to fatter easily and early. In an individual case the same rule holds good—the well-kept young bull for a getter of thrifty calves.

In the feeding of calves or older cattle, a matter of vital importance is system and regularity, whether feeding the lighter and cheaper kinds of feed, or something better. You should vary a little in quality or quantity, to suit the weather. It is much better on general principles to increase the feed very gradually, and a very little, than to have any falling off. To illustrate: If we take two animals, equal in natural quality and breeding, one of which has been highly fed while the other has been "roughing it," and give them the same treatment, on moderate feed the previously well-kept one will decline in flesh, while the other will improve rapidly. Hence I say do not inaugurate a system of feeding you do not intend to keep up regularly. Avoid as far as convenient and consistent any change of pasture, quarters, or feeding-places. There is no place so comfortable and home-like as at home in one's own bed.

Jas. N. Brown's Sons, of Illinois, who some years since were in the habit of grazing annually some hundreds of Texas steers through the winter as far as possible, and through the next summer on tame pastures, in Illinois, stated that they had the best results with those they turned in large pastures in the fall and did not shift until they sent them to market the following summer or fall.

In my experience in breeding and raising calves, I am convinced that most farmers do not give these details sufficient study or thought.

Newman, Kas., Dec. 12, 1883.

Ladies

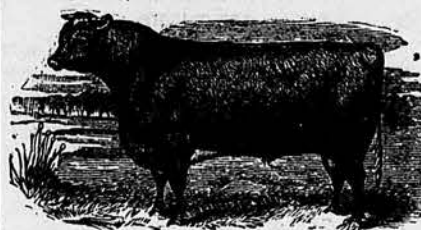
afflicted with weaknesses peculiar to their sex will find in Lels' Dandelion Tonic a genuine friend. If it be taken persistently in small doses it will effect a permanent cure. It contains the phosphates, iron and other tonic and nutritive principles, the lack of which in the system causes female diseases.

The frequent use of the cultivator is a secret in corn culture. The soil need not be stirred deep, but should be kept clean and the surface loose.

As the weather becomes warmer the water used for drinking must be changed often. Fowls appreciate plenty of cool water in summer.

The wildest colts, if properly handled, often become the quietest and safest, generally developing into the most enduring horses.

M. R. HUGHES & SON, Independence, : : Mo.,



Breeders of Short-horn Cattle and furnishers of High-grade Red and Roan Bulls and Heifers. Specialty of Grade Polled-Angus and Galloway Cattle for Western trade.

200 choice High-grade Cows and Heifers for sale.



SHORT-HORNS FOR SALE.

THE BREEDERS' ASSOCIATION of CLINTON and CLAY COUNTIES, Mo., own about

1,000 Short-horn Cows, and raise for sale each year Near 400 Bulls.

Will sell males or females at all times as low as they can be bought elsewhere. The Annual Public Sale will be held the first Wednesday and Thursday in June of each year. Parties wanting to buy Short-horns Write to J. M. CLAY, President, Plattsburg, Mo.; H. C. DUNCAN, Vice President, Osborn, Mo. or S. C. DUNCAN, Secretary, Smithville, Mo.

Wm. Gentry & Sons, Sedalia, Pettis Co., Mo.
Joel B. Gentry & Co., Hughesville, Pettis Co., Mo.



BREEDERS of and Dealers in Short-horn, Hereford, Polled, Aberdeen and Galloway Cattle, Jacks and Jennets. Have on hand one thousand Bulls, three hundred she cattle in calf by Hereford and Polled Bulls. Are prepared to make contracts for future delivery for any number.

Mt. Pleasant Stock Farm, Colony, Anderson Co., Kansas.



J. S. HAVES

Importer and Breeder of

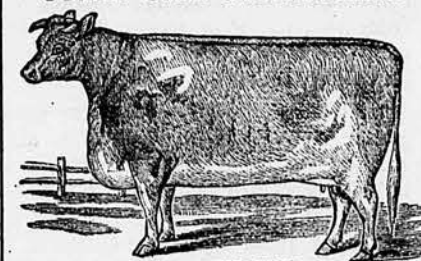
HEREFORD

Cattle.

I have one of the largest herds of these famous cattle in the country, numbering about 200 head. Many are from the noted English breeders, T. J. Carwardine, J. B. Green, B. Rogers, W. S. Powell, Warren Evans and P. Turner. The bulls in service are "FORTUNE," sweepstakes bull with five of his get at Kansas State Fair 1882 and 1883; Imp. "Lord Wilton" bull "SIR EVELYN," own brother to "Sir Bartle Frere," Imp. "DAUPHIN 18th," half brother to T. L. Miller Co's "Dauphin 18th;" and "THE GROVE 4th," by "The Grove 3d."

To parties wishing to start a Herd I will give very low figures. Write or come.

SUNNY SIDE STOCK FARM.



J. P. FENLON, P. O. Box 148, Leavenworth, Kansas, Breeder of

SHORT-HORN CATTLE of the most noted beef strains, and all superior individuals.

FOR SALE—Forty Thoroughbred Pure Short-horn Bulls—Rose of Sharon, Young Mary and Princess, from 9 months to 2 years old; also, 60 High-grade Bulls, all Red and in fine condition, from three-quarters grade cows and pedigree bulls.

Correspondence or inspection of herd cordially invited.

HEREFORD CATTLE.

THOROUGH-BRED BULLS and HIGH-GRADE BULLS and HEIFERS for sale. Inquiries promptly answered.

WALTER MORGAN & SON,
Irving, Marshall Co., Kansas.

BEES FOR SALE.—I have a few colonies of Italian and Hybrid bees for sale—all in good condition. Also, will have choice Italian Queens for sale at \$1.00 each during the season. J. B. KLINE, 314 Kansas Ave., Topeka, Kas.

The Veterinarian.

[The paragraphs in this department are gathered from our exchanges.—ED. FARMER.]

SCOURS IN RAM.—Have a fine ram that has had scours all spring. Fed corn and hay, and run at grass. [Feeding corn only aggravate scours; feed oats and give hay and grass to counteract the diarrhoea. Give ten drops tinct. nux vomica in a little water, three times a day. In case of hair worms, one week after, give one teaspoonful of turpentine in one teaspoonful of linseed oil.]

COLLAR BOIL.—If the lump, as you call it, is hard and caused by the collar, and been there for two weeks, take Caustic Balsam and rub on the part morning and evening for two days; rub on sweet oil 4 oz., arnica 4 oz., mixed, for one week. You will then see if it has been reduced; if not, it will be ready to run a seton through it. Keep fomenting with hot water till all the matter is run out.

CALVES DYING OF CHILLS.—Eleven calves in a meadow with a warm stable to run into. A week ago, noticed one to get weak eyes, watered, nose run matter, and could not get up; mouth, tongue and nose cold as if dead; several died, etc. [Your calves are dying of cold chills. Keep them in the stable when wet and cold; feed warm oatmeal gruel, with salt; let them out when the grass is dry, an hour or so, when the weather is fine.]

LOSS OF CONDITON.—Horse is poor, runs at the nose, coughs, when breathing his sides go like a horse with heaves; eats but very little. Is it heaves? [You may be feeding bulky food, not nutritive, and creating a pressure on the lungs, which causes the difficulty in breathing and likewise the loss of condition. Feed only cooked food, morning and noon, with two teaspoonfuls of flaxseed each day; hay only at night, and a good condition medicine.]

TUMOR ON KNEE.—I have a last spring's one-half Clyde colt that has an ugly-looking bunch on his knee cap, just below the centre and extending clear across. The bunch is not hard, like a bone, neither is it soft, as though it had corruption in it, but feels more like gristle. I have been bathing it with Centaur liniment, but this does no good. During harvest I kept him tied in the stable occasionally, and think he may have hurt his knee against the manger. He is a little lame. Can the bunch be removed? and if so, how? [It is probable that the colt injured his knee, by bumping it against the stall. Injuries of the above character usually terminate in a serous abscess, which, when promptly treated, is not likely to cause any blemish; but in the present case, which, we fear, has been neglected too long, some trouble may be experienced in removing the enlargement. In the treatment of a serous abscess, it is necessary that it should be opened as soon as it is prudent to do so. Any existing inflammation, however, should first be abated by proper applications. The best way to open the abscess is by inserting a seton at the top, bringing it out at the bottom of the sac (some prefer to use a fine trochar and canula). This done, the wound may be injected with the tincture of iodine diluted. A bandage neatly adjusted will materially aid in effecting a cure. The time, however, for the removal of the enlargement by simple means, has passed, and the only alternative is to pursue more active treatment. Blistering with the ointment recommended for the cure of splint, in another column, is, perhaps, the best. A few days after blistering, we advise the constant application of a

compress, held in contact by a neatly adjusted bandage. The steady pressure thus employed, if persisted in, will have a tendency to cause the absorption of the deposit.]

MARE DISOWNIG COLT.—Will not own it by all the plans we have tried. The mare is losing her milk. [If you have been compelled to keep the colt short of milk, give him one quart of warm cow's milk, with two teaspoonfuls of molasses in it, three times a day, if two weeks old, more if older. Add a tablespoonful of oatmeal and flaxseed, well boiled, as the colt grows. Give the mare good mash of scalded oats, bran and flaxseed meal, so as to force the milk into the udder. When she seems to be suffering from the milk let the colt at her. When she finds that she gets relief she will take to the colt. A good plan is to let the colt to her before she is fed in the morning. Sprinkle wet bran and oat meal all over the back of the colt, so that she will lick the colt while sucking.]

The Bite of a Mad Dog Not Always Fatal.

The bite of a mad dog, it would appear, is not so fatal as is generally supposed. A report upon the subject for the Department of the Seine, issued by the Paris Prefecture of Police for the past three years, shows that of one hundred and fifty-six persons bitten by rabid dogs in 1881, eighty died; in 1882, nine out of sixty-seven bitten died; and in 1883, five only out of forty-five. With regard to the treatment of the bite of a rabid animal, the experience of the French doctors shows that the only remedy which can be depended upon to destroy the virus is the prompt application to the wound of cauterization by red hot iron. Twenty persons died of hydrophobia in the Department of the Seine in 1881, nine in 1882, and four in 1883, as far as the official returns show. The decreasing number of deaths from this cause is attributed to the stricter measures adopted with regard to ownerless dogs. During the three years mentioned 11,504 stray dogs were captured in Paris and the department, and destroyed.

Dyspepsia

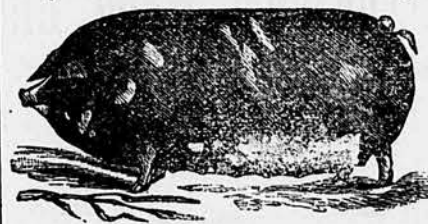
with its many evils, its sleepless nights and days of agony, can be speedily and permanently cured by taking Leis' Dandelion Tonic regularly. Thousands once afflicted with this distressing malady are now in the enjoyment of perfect health through the use of the Dandelion Tonic.

Movable chicken coops for the hens and broods are just the thing. They prevent the earth from being contaminated, keep the broods clean and promote thrift.

When all other remedies fail then try Dr. King's New Discovery for Consumption. Trial Bottles free.

In washing wooden dairy utensils use first hot water, then cold, and lastly hot. See that they are well dried.

Improved Poland-China Hogs



We have been breeding Poland-China Hogs for twenty years. The long experience obtained has enabled us to select none but the choicest specimens for breeding purposes. We now have

Hogs of Quick Growth,

Easily fattened and early matured, showing a great improvement in form and style, especially in the head and ears. Our breeders consist of the finest lot of Sows and three of the best Boars in the State, being descendants from the best families in the United States. Those wishing choice pigs should send orders in early as there is a very large demand for stock. Mail orders filled with dispatch. Pedigrees furnished with all hogs sold.

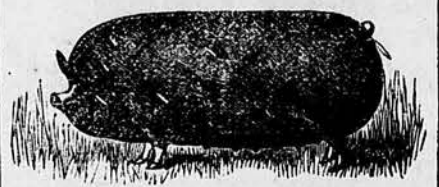
S. V. WALTON & SON,
P. O., Wellington, Kansas; Box, 207.
Residence, 7 miles west of Wellington, near Mayfield.

Chester White, Berkshire and Poland-China Pigs, Fine Setters, Scotch Collies, Fox Hounds and Beagles, bred and for sale by PEOPLE & Co., West Chester, Chester Co., Pa. Send stamps for circular and price list.



JAYHAWKER 3895.
Owned by J.V. RANDOLPH, Emporia, Kas.

PLEASANT VALLEY HERD —OF— Pure-bred Berkshire Swine.



I have thirty breeding sows, all matured animals and of the very best strains of blood. I am using three splendid imported boars, headed by the splendid prize-winner Plantagenet 2319, winner of five first prizes and gold medal at the leading shows in Canada in 1881. I am now prepared to fill orders for pigs of either sex not akin, or for matured animals. Prices reasonable. Satisfaction guaranteed. Send for catalogue and price list, free.

S. MCULLUGH,
Ottawa, Kansas.

WELLINGTON HERD ENGLISH BERKSHIRES.



The Wellington Herd of well-bred and Imported Berkshires is headed by HOPFUL JOE 4889. The herd consists of 10 matured brood sows of the best families. This herd has no superior for size and quality, and the very best strains of Berkshire blood. Stock all recorded in A. B. R. Correspondence and inspection invited. Address

M. B. KEAGY,
Wellington, Kas.

Elk Valley Herd of Recorded Poland-Chinas.



BRED BY J. WRIGHT, ELK CITY, KAS.

My stock was selected from the best herds in Illinois, Indiana and Ohio. Young stock for sale; also high-class Poultry. Send for catalogue and prices.

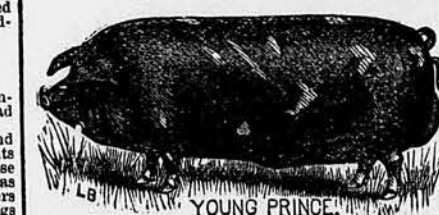
JOHN WRIGHT, Elk City, Kas.



ROME PARK STOCK FARM, located seven miles south of Wellington, Sumner Co., Kansas; Rome depot adjoining farm. I have 35 breeding sows—Poland-China and Large English Berkshire swine. Also 230 high grade Short-horn cattle. Stock recorded in Ohio and American Records. The animals of this herd were and are prize-winners and descendants of prize-winners, selected with care from the notable herds in the different States without regard to price. The best lot of sows to be seen. Am using six boars—Cornish 2d, Kansas Queen, Kansas Pride, Cora's Victor, Ohio King, Hubbard's Choice, sweepstakes. Orders booked for Spring Pigs. Address

T. A. HUBBARD,
Wellington, Kansas.

Thoroughbred Poland-Chinas



YOUNG PRINCE.

AS PRODUCED AND BRED BY
A. C. MOORE & SONS, Canton, Illinois.

We are raising over 800 pigs for this season's trade. Progeny of hogs that have taken more and larger sweepstakes and pork-packer's premiums than can be shown by any other man on any other breed. Stock all healthy and doing well. Have made a specialty of this breed of hogs for 37 years. Those desiring the thoroughbred Poland-Chinas should send to headquarters. Our breeders will be registered in the American Poland China Record. Photograph of 34 breeders, free. *Swine Journal* 25 cents. Three-cent stamps taken.

River Side Herds —OF— POLANDS and BERKSHIRES.

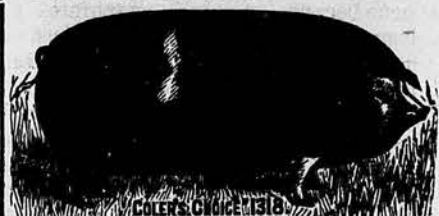
With Jayhawker 3895 and Quantrell 24, a perfection pig at the head of my herd of Black Bess Hogs, I think I have the three most popular strains of Poland, and as fine a herd of hogs as the country can produce. My breeders are all registered, and all stock warranted as represented. Prices reasonable. My stock is always ready for inspection. Call around; the latch-string is always out.

J. V. RANDOLPH,
Emporia, Kansas.

Established in 1868.

Stock for sale at all times.

Riverside Stock Farm.



Herds of pure-bred and high grade Short-horn Cattle, Poland-China Swine, Shepherd Dogs and Plymouth Rock Fowls. The best herd of Poland-Chinas west of the Mississippi river, headed by Black-foot 2281, Young U. S. 4491, Laudable, vol. 6 (own brother to Look-No-Farther 4005) and Seek-No-Farther (a son of Look-No-Farther). All stock sold eligible to the Ohio Record. Send for new catalogue.

MILLER BROS.,
Box 298, Junction City, Kas.

Acme Herd of Poland Chinas



Fully up to the highest standard in all respects. Pedigrees, for either American or Ohio Records, furnished with each sale. All inquiries promptly answered.

Address STEWART & BOYLE, Wichita, Kansas.

PIG EXTRACTOR, to aid animals in giving birth. Send for free circular to

WM. DULIN,
Avoca, Pottawatomie Co., Iowa.

PROSPECT FARM.



The two imported Clydesdale Stallions Carron Prince and Knight of Harris will stand at the stable of the undersigned this season,—the one at \$20.00, the other at \$25.00, to insure. Both horses imported from Scotland in 1882 and recorded in A. O. S. Book, pages 364 and 370.

The two high-grade Stallions, Donald Dean and King William, will stand at same place at \$10.00 each to insure. These two horses were sired and grand-sired by noted imported Clydesdale Stallions. Farmers, come and examine these horses for yourselves. STALLIONS AND MARES FOR SALE.

H. W. McAFEE.

Three miles West of Topeka, 6th St. road.

IVANHOE. Trial Mile at 3 Years Old, 1:46.

Dark Bay, 15 3-4 hands high, weight 1,100 pounds

Stands at GLENVIEW FARM, 3 miles southwest of Humboldt, at \$20 to insure. Free pasture for mares. Sired by Glendower, (son of Evergreen and Imp. Knight of St. George); 1st dam by Panic, 2d by Dubloon, 3d by Sir Richard, 4th by Whip, 5th by Costeaze, 6th by Imp. Dare Devil.

For a combination of blood, size, style, speed and action, united with beauty of the highest type and the power of transmitting these qualities to his progeny, this horse has few equals.

G. A. LAUDE,
Humboldt, Kas.

MARQUIS 2D,

A Pedigree English Shire Horse,

Stands for the season at Fowler's Ranch, Maple Hill, Kas., on Tuesdays, Wednesdays and Thursdays; at the West Ranch on Mondays, and at St. Marys, on Saturdays, in each week.

TERMS OF SERVICE:

To insure, \$25,—payable when mare proves in foal or if owner disposes of her. Single services \$15,—payable to man in charge, at time of service

The Poultry Yard.

Some Questions Answered.

In a recent issue of *Prairie Farmer*, Fanny Field answers some questions as follows:

"Why are not chicks able to get out of the shell? Its lining membrane seems to be too dry and sticks to the chick."—You have given the reasons—the membrane lining of the shell dries, gets so hard and tough that the chick can not pick its way through; this happens because moisture evaporates too rapidly from the egg. When hens are set on the ground, evaporation is slight and the egg remains in a natural condition favorable to hatching; but when set in "nice" nests in the barn or poultry-house artificial conditions are introduced; the heat is dryer and evaporation is more rapid. To prevent this, put an inverted sod in the bottom of the nest box, and during the last ten days of incubation sprinkle daily with water having the chill taken off.

Here comes a letter from a Nebraska woman who asks lots of questions. She is disappointed because her hens refuse to sit. She says: "I have twenty hens nearly full-blooded Plymouths, that had no care through the winter, hardly a decent place to roost in, and were nearly covered with lice. I have had a house built for them, sixteen by ten feet, with one end partitioned off for sitters; greased the hens well with kerosene and lard, and used carbolic acid freely about the roosts, but they decline to sit and my hopes of early pullets for winter layers are all gone."

—The blame does not belong to the house and the lice remedies as you suppose. The house and care did not get along soon enough. Plymouth Rocks are not given to sitting during cold weather, but if early pullets are so managed that they will lay during late fall and early winter they will generally offer to sit along in February and March. It depends some upon climate. March and April hatched Plymouth pullets make good winter layers, as I know from several years' experience.

"I have never raised chickens, but having leisure and a little capital I would like to try if there is any money in it, and come to you for advice. I have a late start but still hope to do something."—Of course you can do something—a good deal, this year. Your hens will offer to sit in time to raise a goodly number of chickens for fall and winter market; some of the best pullets may be kept for later winter layers. When the old hens begin to moult this fall sell most of them, and buy early-hatched pullets to take their places. No matter if they are not full blood, with care they will lay well in winter.

"My hens have the run of the farm; shall I feed them at all this summer? If insect food is plenty they will pick up nearly their whole living; a little observation will enable you to decide whether or not they will need extra food. Oats and wheat screenings are the proper things to give."

"Would you advise an incubator?"—Not this season, nor probably next. After you have been successful in hatching and raising the natural way is the time to try the incubator.

"Will my hen-house be large enough to winter fifty hens, and how many cocks should I keep?"—If the hens are to be confined to the house from December first until the middle of March, the house will be too small, but if they can have the run of a shed, where they can scratch and exercise, a 16x10 will be large enough for fifty hens to roost and lay in. For that number of Plymouth Rocks you would need four male birds; but better select a dozen of your best hens, mate them with a vigorous young cock, keep separate from the others, and use their eggs for hatching.

"I intend to buy a few eggs; can get good Plymouth Rocks here for two dollars a sitting: would it pay better to have them sent from some high priced poultry breeders? Are eggs injured by long shipment far?"—If eggs are from good birds it makes no difference, except to your pocket-book, whether purchased from your nearest neighbor,

at 50 cents a dozen, or from a distance at \$5. Eggs from good stock, fresh, and properly packed, are not often injured during transportation. When you get puzzled, come again, and I will try and help you.

\$11,950

IN CASH GIVEN AWAY

To the **SMOKERS** of
Blackwell's Genuine
Bull Durham Smok-
ing Tobacco.

The genuine has picture of
BULL on every package.

For particulars see our next
announcement.

IT LEADS ALL.

No other blood-purifying medicine is made, or has ever been prepared, which so completely meets the wants of physicians and the general public as

Ayer's Sarsaparilla.

It leads the list as a truly scientific preparation for all blood diseases. If there is a lurking taint of Scrofula about you, Ayer's Sarsaparilla will dislodge it and expel it from your system. For constitutional or scrofulous Catarrh, Ayer's Sarsaparilla is the true remedy. It has cured numerous cases. It will stop the nauseous catarrhal discharges, and remove the sickening odor of the breath, which are indications of scrofulous origin.

"Hutto, Tex., Sept. 23, 1882.
"At the age of two years one of my children was terribly afflicted with ulcerous running sores on its face and neck. At the same time its eyes were swollen, much inflamed, and very sore. Physicians told us that a powerful alternative medicine must be employed. They united in recommending Ayer's Sarsaparilla. A few doses produced a perceptible improvement, which, by an adherence to your directions, was continued to a complete and permanent cure. No evidence has since appeared of the existence of any scrofulous tendencies; and no treatment of any disorder was ever attended by more prompt or effectual results."

Yours truly,
B. F. JOHNSON.
PREPARED BY
Dr. J. C. Ayer & Co., Lowell, Mass.
Sold by all Druggists; \$1, six bottles for \$5.

240 JERSEY CATTLE

Consigned by Prominent Breeders to
PETER C. KELLOGG & CO.
For Positive Auction Sale,

Tuesday, Wednesday and Thursday,
JUNE 17, 18 & 19, 1884,
Commencing each day at 10 o'clock,
at the

AMERICAN HORSE EXCHANGE, Limited,
Broadway and 50th St., New York.
(Office, 107 John St.)

Among the consignors are Mr. T. A. Havemeyer (entire Mountinside Herd), Mahwah, N. J.; Mr. Valancey E. Fuller, Hamilton, Canada; Mr. A. B. Darling, Ramsey, N. J.; Mr. F. C. Havemeyer, Westchester, N. Y.; Mr. S. M. Shoemaker, Baltimore, Md.; Mr. John F. Maxwell, Bloomfield, N. J.; Mr. John I. Holly, Plainfield, N. J.; Mr. George R. Sheldon, Morrisville, N. J.; Mr. Wm. Rockefeller, Greenwich, Conn.; Edenside Farm, Orange, N. J., and other owners of valuable Herds.

There are Cows, Heifers and Bulls, by Stoke Pogis 8d, Duke of Darlington, Royalist, Lord Lisgar, Black Prince of Hanover, Carlo, Upstart, Pedro, Sultan Carlo, Hero, Romulus, Tom, Victor, Brown, and close descendants of Comma (a daughter), Khedive, Grand Duke Alexis, Victor Hugo, Dandelion (a daughter), Jersey Belle of Scituate, Vertumnus, Jersey Boy, Lady Mary, and nearly every fashionable strain in the country.

The lateness of the season, the large number offered, the financial situation, and the high quality and breeding of the offerings indicate that this sale will prove the most available opportunity of the year for valuable bargains.
Address **PETER C. KELLOGG & CO.,**
107 John St., New York.

At Abilene, Kansas, Wednesday, June 18th,
WILL BE OFFERED AT PUBLIC SALE THE

DURHAM PARK HERD,

Consisting of



ONE HUNDRED AND SIXTY Thoroughbred Short-horns,

LATE THE PROPERTY OF MR. ALBERT CRANE.

HAVING purchased the above-named herd, together with the Durham Park estate, I have decided to close out the cattle by public auction at the time and place above mentioned, and to dispose of the land in small tracts at private sale. For a number of years past the surplus cattle stock at Durham Park has been disposed of at private treaty, and no opportunity has heretofore been presented for the purchase of

THE MANY CHOICE BREEDING ANIMALS

Collected with such a liberal hand by Mr. Crane. In building up the herd Mr. Crane not only patronized several of the leading American breeders but made purchases at several notable English sales, including the Torr-Booth dispersion. Bulls of the purest breeding have been used, and every endeavor made to maintain a thoroughly useful cattle stock.

The proprietor has refused to dispose of anything at private sale since the purchase, and has catalogued for this occasion the entire herd just as it was received from the hands of Mr. Crane, without a single reservation.

Catalogue on application to

S. A. SAWYER, AUCTIONEER.

A. H. MARTIN, Durham Park, Kas.

PUBLIC SALE OF Pure-bred Short-horn and Aberdeen-Angus CATTLE

Turlington Stock Farm.

The first annual sale of pure-bred Short-horn and Aberdeen-Angus cattle from the Turlington herds, will be held at the farm,

Tuesday, June 17th, 1884.

Among the SHORT-HORNS to be catalogued are RED ROSE PRINCESSES, BENTON ROSE OF SHARONS (including some of the POPPY branch), MAZURKAS, ROAN DUCHESSES, EASTER DAYS, ROSAMONDS, YOUNG MARYS, etc., etc.

The ABERDEEN-ANGUS will embrace ERICAS, SYBILS, JILTS, PRIDES, DUCHESSES OF CARRON, DUCHESSES OF FERNYFLATT, FYVIE FLOWERS, DRUMIN LUCYS, etc.

This draft of 50 Head from the above herds in point of individuality and high breeding cannot be excelled.

Catalogues to be had on application to
COL. L. P. MUIR,
FRED. M. WOODS, } Auctioneers.

T. W. HARVEY,
Turlington, Nebraska.

TURLINGTON, NEB., Is on the B. & M. R. R., fifteen miles west of Nebraska City, and thirty-five miles east of Lincoln. Passengers on B. & M. stop at TURLINGTON, which is on the Farm.

BUY A TILE OR BRICK MACHINE

TILE
H. Brewer & Co., Tecumseh, Mich., for Cat'g E.

The Cold Water Dip!

A HIGHLY-CONCENTRATED CHEMICAL FLUID! Non-poisonous and non-corrosive Sheep Dip and Wash for all Domestic Animals. A safe and sure Remedy against all kinds of Parasites in Plants or Animals. A powerful disinfectant. Send for papers giving full instructions to
DONALD McKAY, Special Agt.,
Rose Bank, Dickinson Co., Kas.

J. P. DAVIS, Pres't., E. N. MORRILL, Treas., JNO. E. MOON, Sec'y.

The KANSAS Mutual Life Association.

OF HIAWATHA, KAS.

The only Co-operative Life Association offering Absolute Protection in Old Age.

Agents wanted. Send for Journal and Leaflet, giving full information, to

J. E. MOON, Sec'y.

Stewart's STOCK REMEDY.
Is a Tonic, Appetizer and Blood Purifier for all live stock. The best Condition Powder in the world. 25 CENTS.



KANSAS FARMERS Mutual Fire Insurance Company,

—OF—
ABILENE, : KANSAS.

OFFICERS:

J. E. BONEBRAKE, President.
C. H. LEBOLD, Vice President.
W. A. MORTON, Secretary.

INSURES

Farm Property and Live Stock Against
Fire, Lightning, Tornadoes and
Wind Storms.

AGENTS WANTED in Every County in Kansas.

For any information, address the Secretary, Abilene, Kansas.

THE DINGEE & CONARD CO'S BEAUTIFUL EVER-BLOOMING

ROSES

The only establishment making a SPECIAL BUSINESS OF ROSES. 60 LARGE HOUSES for ROSES alone. We GIVE AWAY, in Premiums and Extras, more ROSES than most establishments grow. Strong Pot Plants suitable for immediate bloom delivered safely, postpaid, to any post-office. 5 splendid varieties, your choice, all labeled, for \$1; 12 for \$2; 19 for \$3; 26 for \$4; 35 for \$5; 75 for \$10; 100 for \$13. Our NEW GUIDE, a complete Treatise on the Rose, 70 pp., elegantly illustrated, FREE! THE DINGEE & CONARD CO., 600 West Grove, Chester Co., Pa.

THE STRAY LIST

HOW TO POST A STRAY.

BY AN ACT of the Legislature, approved Feb 27, 1886, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker up, to the KANSAS FARMER, together with the sum of fifty cents for each animal contained in said notice. And such notice shall be published in the FARMER in three successive issues of the paper. It is made the duty of the proprietors of the KANSAS FARMER to send the paper free of cost, to every county clerk in the state to be kept on file in his office for the inspection of all persons interested in strays. A penalty of from \$5.00 to \$50.00 is affixed to any failure of a Justice of the Peace, a County Clerk, or the proprietors of the FARMER for a violation of this law.

How to post a Stray, the fees fines and penalties for not posting.

Broken animals can be taken up at any time in the year. Unbroken animals can only be taken up between the 1st day of November and the 1st day of April, except when found in the lawful enclosure of the taker-up.

No persons, except citizens and householders, can take up a stray.

If an animal liable to be taken, shall come upon the premises of any person, and he fails for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

Any person taking up a stray, must immediately advertise the same by posting three written notices in as many places in the township, giving a correct description of such stray.

If such stray is not proven up at the expiration of ten days, the taker-up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered, also he shall give a full description of the same and its cash value. He shall also give a bond to the state of double the value of such stray.

The Justice of the Peace shall within twenty days from the time such stray was taken up, (ten days after posting) make out and return to the County Clerk, a certified copy of the description and value of such stray. If such stray shall be valued at more than ten dollars, it shall be advertised in the KANSAS FARMER in three successive numbers.

The owner of any stray, may within twelve months from the time of taking up, prove the same by evidence before any Justice of the Peace of the county, having first notified the taker up of the time when, and the Justice before whom proof will be offered. The stray shall be delivered to the owner, on the order of the Justice, and upon the payment of all charges and costs.

If the owner of a stray fails to prove ownership within twelve months after the time of taking, a complete title shall rest in the taker up.

At the end of a year after a stray is taken up, the Justice of the Peace shall issue a summons to three householders to appear and appraise such stray, summons to be served by the taker up; said appraiser, or two of them shall in all respects describe and truly value said stray, and make a sworn return of the same to the Justice.

They shall also determine the cost of keeping, and the benefits the taker up may have had, and report the same on their appraisal.

In all cases where the title vests in the taker-up, he shall pay into the County Treasury, deducting all costs of taking up, posting and taking care of the stray, one-half of the remainder of the value of such stray.

Any person who shall sell or dispose of a stray, or take the same out of the state before the title shall have vested in him shall be guilty of a misdemeanor and shall forfeit double the value of such stray and be subject to a fine of twenty dollars.

Strays for week ending May 28, '84

Clay county—W. P. Anthony, clerk.

MARE—Taken up by Henry Mahn, in Goshen tp. May 5, 1884, one dun mare, mane and tail white, branded J on left hip; also in distinct brand on left jaw; valued at \$35.

Harpur county—Ernest S. Rice, clerk.

HORSE—Taken up by Charles Cropper, in Spring tp. May 12, 1884, one strawberry roan horse, no marks or brands visible; valued at \$40.

PONY—By same, one spotted horse pony, branded with circle on right hip; valued at \$35.

Brown county—G. I. Prewitt, clerk.

MARE—Taken up by David Hillier, in Padonia tp. one iron-gray mare, 5 years old, branded M on left shoulder, about 15 hands high; valued at \$75.

Rice county—C. M. Rawlings, clerk.

HORSE—Taken up by John W. Boyse, in Victoria tp. May 12, 1884, one clay-bay or dun horse, right hind foot white, white star in forehead, collar marks on shoulder; valued at \$35.

Elk county—J. S. Johnson, clerk.

MARE—Taken up by Leonard Robinson, in Union Center tp. May 16, 1884, one iron-gray mare, wart on left jaw; valued at \$50.

Sumner county—Wm. H. Berry, clerk.

PONY—Taken up by E. M. D. Sart, in Jackson tp. May 8, 1884, one small sorrel 2-year old mare pony, branded B on right shoulder, right hind foot white, small white strip on face; valued at \$30.

Strays for week ending June 4, '84.

Shawnee county—Chas. F. Spencer, clerk.

MARE—Taken up by J. E. McCarty (P. O. Rossville), in Rossville tp. May 21, 1884, one black mare, 3 to 4 years old, left hind foot white, blaze face, not bridled; valued at \$20.

Davis county—P. V. Trovinger, clerk.

PONY—Taken up by George Heidel, in Jackson tp. April 12, 1884, one bay mare pony, 3 years old, 13 hands high, branded B on left shoulder, small strip on nose, some white on right hind foot; valued at \$25.

Kingman county—Chas. Rickman, clerk.

PONY—Taken up by S. M. McCord, in Hoosier tp. April 28, 1884, one medium-sized sorrel horse pony, blaze in face, 2 white feet; valued at \$15.

PONY—By same, one small brown mare pony, anchor branded on left shoulder and 8 on left hip, white feet; valued at \$15.

Anderson county—A. D. McFadden, clerk.

HEIFER—Taken up by A. P. Caldwell, in Rich tp. April 28, 1884, one white yearling heifer, bit out of upper part of left ear; valued at \$18.

HEIFER—By same, one pale red and white yearling heifer, square bit out of left ear; valued at \$18.

HEIFER—By same, one pale red and white spotted yearling heifer, no marks or brands; valued at \$18.

Labette county—F. W. Felt, clerk.

HORSE—Taken up by Leander Pond, in Hackberry tp. May 10, 1884, one bay horse, 6 years old, blaze face, white spot on each of its sides, indecipherable brand on left hip; valued at \$25.

MARE—By same, one bay mare, blaze face, glass eyes, 3 years old, branded as above; valued at \$20.

MARE—By same, one bay mare, about 9 years old, branded as above; valued at \$15.

MARE—By same, one black mare, about 4 years old, star in forehead, branded as above; valued at \$20.

HORSE—Taken up by J. D. Lombard, in Hackberry

tp. May 15, 1884, one dark bay horse, 4 years old, 14½ hands high, branded on left hip nearly like "111," had on a head-stall; valued at \$30.

HORSE—By same, one dark bay horse, 15 hands high, 8 years old, branded as above on left hip (111); valued at \$40.

Strays for week ending June 11, '84

Atchison county—Chas. H. Krebs, clerk.

HORSE—Taken up by Lewis Brothers, of Lancaster tp. (Huron P. O.), May 21, 1884, one bay horse, shod all around, some saddle and harness marks, about 15 hands high, 10 or 12 years old; valued at \$80.

PONY—By same, one sorrel horse pony, 3 white feet, white on forehead, rope on neck, branded on right shoulder, and both hips, harness marks, age not given; valued at \$15.

Ottawa county—W. W. Walker, Jr., clerk.

MARE—Taken up by B. M. Sken, in Grant tp. one gray roan mare, 3 years old, slit in right ear; valued at \$50.

Chase county—J. J. Massey, clerk.

HORSE—Taken up by J. D. Riggs, June 2, 1884, one light bay or brown horse, 10 years old, both hind feet white to pastern joint, some white in forehead, branded 99 on left hip and a brand like "L" on left shoulder; valued at \$30.

Cowley county—J. S. Hunt, clerk.

MARE—Taken up by G. W. Herbert, in Silverdale, May 2, 1884, one bay mare, 15½ hands high, star in forehead with white stripe running down to nose, left hind foot white, white speck over sight of right eye; valued at \$50.

Reno county—W. R. Marshall, clerk.

PONY—Taken up by George Schlickan, in Haven tp. May 17, 1884, one brown horse pony, 10 years old, branded 8 on right shoulder.

Pottawatomie county—I. W. Zimmerman, clk.

BULL—Taken up by W. O. Walker, in Blue tp. May 21, 1884, one yearling bull, red-roan with white spots behind the shoulder, white spot on left hip, star in forehead; valued at \$35.

Davis county—P. V. Trovinger, Clerk.

MARE—Taken up by W. S. Clarke, in Jackson tp. May 5, 1884, one brown mare, 4 years old, about 15 hands high, narrow strip in face; valued at \$75.

Strayed.

From the subscriber, 3 miles southwest of Leavenworth, evening of May 10, 1884, team of small horses. One bay, light on hips, much darker on shoulders, age about 10 years, has rather large head; other very dark, nearly black, has very heavy mane, tail and foretop, age about 6 years, has Texas brand. Both have collar and saddle marks. A liberal reward will be paid for their return or information where they may be found. O. S. SMITH or R. A. CRUTCHER, Broadway Stock Yards, Leavenworth, Kas.

STRAYED.

From the subscriber, two miles southeast of Pauline, Kas. on the 18th of April, 1884, a bay mare with bald face and 4 white feet, 7 years old, weighs between 800 and 900 pounds, had on 3 shoes; also, a black yearling horse colt with star in forehead.

A reward of \$10 will be paid for the return of said horses or information where they may be found. J. S. WEIR, Pauline, Shawnee Co., Kas., Or, L. KINGMAN, Topeka, Kas.

RED RIVER VALLEY LANDS A FARM

SPECIAL OFFER To Actual Settlers
open only between the 1st day of March and the 31st day of Dec., 1884.

The lands included in this offer are the most productive and, considering locality, the cheapest of any unoccupied lands in the United States now open for sale.

First applicants will have first chance. Home seekers "catch on." For Maps, Illustrated Papers and other information regarding these lands, write to

J. B. POWER,
Land and Immigration Commissioner,
St. Paul, Minneapolis & Manitoba R'y,
ST. PAUL, MINN.

FOR \$3 P. ACRE

SALES WILL BE MADE IN LOTS OF NOT LESS THAN 160 ACRES NOR MORE THAN 320 ACRES. THE TERMS ARE BETTER THAN CAN BE OBTAINED FROM THE GOVERNMENT.

BEAN'S HAY STACKER is guaranteed to do more and better work than any hay machine in the world. Our New Loader everywhere receives the highest praise. All need our Stack Rake. \$25. Send for circular. J. H. BEAN & SON, DECATUR, ILL. P. O. Box 1334.

NEW 'Singer' Model Sewing Machines \$15
Including an \$8.00 set of extra attachments of 9 pieces and needles, oil and usual outfit of 12 pieces with each. Guaranteed perfect. Warranted 5 years. Handsome, durable, quiet and light running. Don't pay \$30 to \$50 for machines no better. We will send ours anywhere on trial before paying. Circulars free. Save \$15 to \$35 by addressing GEO. PAYNE & CO., 37 Third Ave., Chicago, Ills.

BEAN'S HAY STACKER is guaranteed to do more and better work than any hay machine in the world. Our New Loader everywhere receives the highest praise. All need our Stack Rake. \$25. Send for circular. J. H. BEAN & SON, DECATUR, ILL. P. O. Box 1334.

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TOPEKA MANUFACTURING CO.,

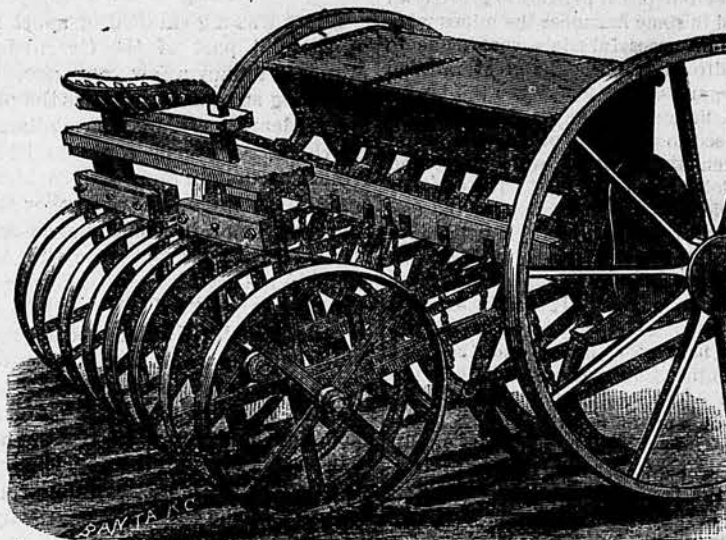
TOPEKA, : : : KANSAS,

Manufacturers of

Smith's Roller-Attachment for Grain Drills,
The Meadow King Hay-Stacker and Hay-Rake,
and The Topeka Swivel Tower Wind Mill.

Smith's Roller-Attachment!

The Roller-Attachment



For Seed Drills.

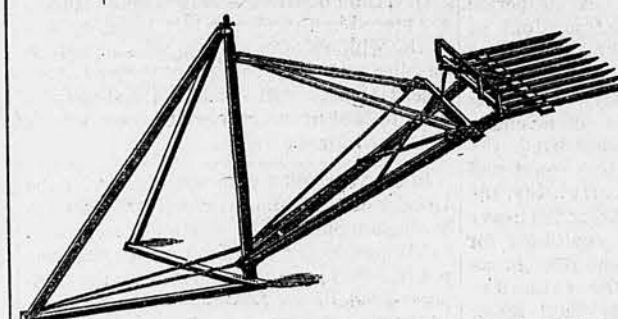
WHEAT-GROWING

Made a Certainty by the use of Smith's Roller-Attachment for Seed Drills.

The soil is firmly pressed on the seed, causing the soil to adhere to the seed, which greatly assists germination. The compactness of the soil retains the moisture, preventing injury by drought. Requiring less than one-half the seed usually sown, from the fact that none is wasted, either by a failure to sprout in the fall or by winter-killing, by pressing the soil firmly on the seed in track of the drill-hoe as it is being sown by the drill, leaving a wheel-track for the grain to grow in, which locates the wheat plant 2 to 4 inches below the general surface of the field, causing the plant to be covered by the drifting soil, it being pulverized like flour by the early spring weather, which is the most destructive weather that wheat has to pass through. The Roller-Attachment has been perfected in every respect, and we guarantee all that we represent for it.

THE ATTACHMENT CAN BE COUPLED TO ANY GRAIN DRILL.

THE MEADOW KING STACKER AND HAY-RAKE.



THE MEADOW KING

Hay & Straw Stacker.

Simplicity of Construction!

No Engineer Required!

Any Farm Hand Can Run It!

Light Draft and Perfect Operation!

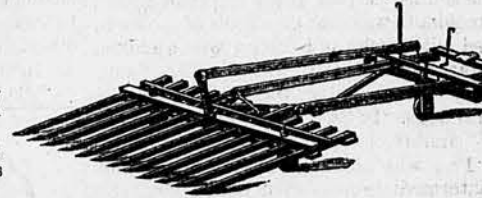
CAPACITY OF STACKING FROM 75 TO 100 TONS PER DAY!

The MEADOW KING STACKER saves time and labor. It dumps the hay evenly over the stack, just where you want it. It is easily operated. Two stacks built at a time if desired. It sells for less money and will do more and better work than any other Stacker in the market.

The MEADOW KING Hay-Rake

Will do more and better work than any other Rake sold. Takes the Hay from the Swath.

It is the cheapest and best rake made. One man can rake from 20 to 30 acres per day.



We also manufacture THE TOPEKA SWIVEL TOWER WIND MILL, conceded to be the Best and Cheapest Wind Mill made. Will be ready for market as soon as the rush on the Roller-Attachment and the Meadow King Stacker and Hay-Rake is over, about September 1st.

For full particulars and information concerning our Machinery, address

TOPEKA MANUFACTURING CO.,
Topeka, Kansas.



CIRCULARS AND SAMPLES FREE.



ROOFING PAINT.—Arrests decay and renews the life of an old shingle roof that would otherwise last but a short time. Beautifies and preserves. It is sold at a price that enables every one to have a water-tight, handsome roof.

Will outwear tin or shingles. Easily applied. Will not rot or rust. Complete materials for a new roof cost but \$5.00 per one hundred square feet.
N. E. PAINT & OIL CO.,
7 India Street, Boston, Mass.

ZIMMERMAN FRUIT AND VEGETABLE EVAPORATOR

Made of Galvanized Iron. FIVE SIZES. 15,000 SOLD. Economical, Durable and Fire Proof. Will pay for itself in 30 days use, out of sale of its own products. FREE! Our Illustrated Catalogue and Treatise. Address, ZIMMERMAN MFG CO., Cincinnati, O. or Burlington, Iowa.

Some Great Strikes.

For the past twenty-five years there have been numerous strikes, most of which, however, have been local, and therefore limited as to consequences. About the first general strike after the war was that known as the "eight-hour strike," which prevailed in a number of the larger cities in 1867, and continued for several weeks. It may be said to have had the effect, indirectly, of reducing the hours of mechanics in the government employ from ten to eight hours a day. The great mass of manufacturers continued as before. No general strike occurred in the United States until the railroad strike in 1877, but in June, 1875, certain strikes in the Pennsylvania mines assumed such proportions that the State militia had to be called out to suppress the increasing violence. For several weeks attempts were made by evil-disposed persons to prevent all labor, and in some instances the mines were fired, and unsuccessful trials were made to wreck railroad trains. The great railroad strikes began July 17, 1877, when the brakemen and firemen on the Baltimore & Ohio road refused to work, and others who would have taken their places were prevented from so doing by the strikers. The cause of the trouble was the reduction of the employees' wages 10 per cent. Martinsburg, Va., was the scene of early outbreak, as there freight trains were stopped, and it was stated that by night fully 1,200 cars were detained here. The ordering out of the militia did not restore order, and the next day the entire line was practically in the possession of the strikers. Then the demoralization spread to other lines. President Hayes, on a call being made to the government, sent Federal troops to the scene of the troubles, and a proclamation was made to the rioters to disperse peacefully. The strike fever had by this time (July 19) spread to Chicago, and trains were stopped all the way from the seaboard to the Mississippi. July 20 found Pittsburg in the hands of the rioters, the strike by this time having apparently gone out of the control of those who inaugurated it, and the officers of the law were defied. The Maryland militia regiments, in being ordered out at Baltimore, were assaulted, and fired on their assailants. The Pennsylvania militia regiments were also ordered out, and Pittsburg then witnessed terrible scenes. The rioters sacked the gun-stores, armed themselves, and attacked the militia, several being killed on each side. A desperate attempt was made to burn the troops out of the shelter they had sought, and they were finally compelled to leave their place, escaping with much difficulty. A destructive conflagration was caused by incendiaries, and much property was destroyed, the rioters plundering whenever they could and ruining what they could not carry away, the property of the railroads bearing the heavy losses. This state of affairs continued for several days in Pittsburg, and riots broke out in Philadelphia; but the authorities were able by prompt action to quell them. Chicago was also the scene of many acts of violence. The trouble was chiefly confined to the southwest part of the city, and among the incidents was that of a mob of women, armed with sticks and bricks, who attacked a detachment of city police. The South Halstead street viaduct was a barricade for several days. In St. Louis and San Francisco similar scenes were enacted. Scranton, Pa., was also visited; not to speak of the intermediate places where deeds of violence were attempted and only prevented by the prompt action of local officials and the small number of the lawless. The Federal troops were sent to cities like Chicago, and their presence contributed much to the restoring of public confidence. The losses resulting from these riots are incalculable, business all over the country suffering heavily. Millions of property was destroyed and many lives lost. In January, 1878, there was a strike among the Crispins, of Lynn, Mass. Work was entirely suspended, outrages were committed in several places, and the country was greatly agitated in consequence of these lawless deeds. In Quebec, a mob of strikers created a riot June 12 of the same year, and order was only restored by the militia, who were called out by the authorities. There were several lives lost. The strike of the telegraphers of the Western Union company is too well remembered to need any notice at present.

Not all the buds, unfolding to the light,
Hold fruitful germs, e'en while they sweetly bear

The fragrance of full promise on the air,
And grow with beauty till the coming night.
But in the morn, revealed unto our sight,
Are blackened leaves, fast falling from the trees,

Scattered to dust by every passing breeze,
Unknown, unheeded in their early blight.

So will desire oft kindle in the breast
The flame of hope, which thought and feeling feed,

That from our lives some little seed may lead
To perfect work, whose mission may be blessed;

But when need cries, the fuller action dies,
For life has claimed the soul's best sacrifice.

—Virginia G. Ellard.

Trading on Nothing.

There was a good deal of sport made of the flat part of the Greenbackers' proposed money a few years ago. The following story demonstrates the philosophy clearly: "Mexican dollars are worth 85 American cents in El Paso. American dollars are worth 85 Mexican cents in Mexico, on the other side of the river, and in consequence a car-driver recently started from the American side with a Mexican dollar in the morning, bought a drink worth 15 cents on the Mexican side, receiving an American dollar in exchange; afterwards bought a drink on the American side and received a Mexican dollar in exchange, and repeated the operation at intervals through the day, leaving off at night with a Mexican dollar, as he began. He can see no reason why he may not live on his capital the rest of his life, by buying 15 cents' worth at a time and dividing his valuable patronage internationally."

Among the stories of sword fishes to be found in marine jurisprudence is one of a fish which sent its sword through the copper sheathing, an inch board under the sheathing, a three-inch plank of hard wood, the solid white oak timber twelve inches thick, then through another two and a half inch hard oak ceiling and finally into the head of a barrel of oil, where it remained.

In certain districts of Russia bread crumbs are placed in a piece of white linen, outside of the window of a room in which a person has died under the belief that the soul of the recent inmate will come, in the shape of a bird, to feed upon the crumbs, and this is continued for six weeks.

In the year 1497 a pike was captured in the vicinity of Manheim, Germany, with the following announcement, in Greek, appended to his muzzle: "I am the first fish that was put into this pond by the hands of the Emperor Frederic the Second, on this third day of October, 1262."

A New York optician says that he has a customer who keeps six pairs of spectacles in wear, reading with one, writing with another and walking with another, and having duplicates of all three in fine frames for occasions when full dress seems necessary.



"I owe my
Restoration
to Health
and Beauty
to the
CUTICURA
REMEDIES."

Testimonial of a
Boston lady.

DISFIGURING HUMORS. Humiliating Eruptions, Itching Tortures, Scrofula, Salt Rheum and Infantile Humors cured by CUTICURA REMEDIES.
CUTICURA RESOLVENT, the new blood purifier, cleanses the blood and perspiration of impurities and poisonous elements, and thus removes the cause.
CUTICURA, the great skin cure, instantly allays itching and inflammation, clears the skin and scalp, heals Ulcers and Sores, and restores the Hair.
CUTICURA SOAP, an exquisite Skin Beautifier and Toilet Requisite, prepared from CUTICURA, is indispensable in treating Skin Diseases. Baby Humors, Skin Blemishes, Chapped and Oily Skin.
CUTICURA REMEDIES are absolutely pure, and the only infallible Blood Purifiers and Skin Beautifiers.
Sold everywhere. Price, Cuticura, 50 cents; Soap, 25 cents; Resolvent, \$1. POTTER DRUG AND CHEMICAL CO., BOSTON, MASS.

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BLOOD & LIVER PURIFIER
A SURE CURE FOR
Sick Headache, Dyspepsia, Langour,
Nervous Exhaustion arising from over-
work or excess of any kind,
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Female Weaknesses.
—IT PREVENTS—
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CONSTIPATION.
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Liver and Kidney Remedy,
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sara Sagrada, etc., combined with an
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THEY CURE DYSPEPSIA & INDIGESTION,
Act upon the Liver and Kidneys,
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REGULATE THE BOWELS.
They cure Rheumatism, and all Uri-
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the Nervous System.
As a Tonic they have no Equal.
Take none but Hops and Malt Bitters.
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HARTER'S IRON TONIC
THE ONLY TRUE
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Will purify the BLOOD, regu-
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and RESTORE THE HEALTH
and VIGOR OF YOUTH. Dys-
pepsia, Want of Appetite, In-
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and Tired Feeling absolutely
cured. Bones, muscles and
nerves receive new force.
Enlivens the mind and
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Suffering from complaints
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find in DR. HARTER'S IRON TONIC a safe and
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Will purify the BLOOD, regu-
late the LIVER and KIDNEYS,
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digestion, Lack of Strength,
and Tired Feeling absolutely
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Enlivens the mind and
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This institution is incorpo-
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Dr. Mulvane, Munk & Mulvane, the physicians in
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surgical diseases, in which direction lies their several
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affections.
They are prepared to treat successfully by the latest
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The most common signs of **Dyspepsia**, or
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regular daily action of the bowels, by the
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Ayer's Pills.
After the bowels are regulated, one of these
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AYER'S PILLS are sugar-coated and purely
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By the
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The Little Gem Creamer
 Is WITHOUT A RIVAL

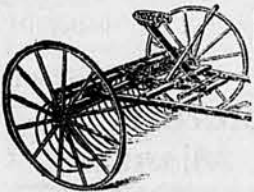
FOR **REAL MERIT,**
 Is the verdict of the many that are using it. It saves more labor, requires no ice; has double the Milk Capacity, is the Creamer for the Dairy in all climates. **WAY & WOODRUFF,** Manufacturers, Geneseo, Ill.



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 Easy to clean, easy to operate. Will not wear out; cover castings will not break. Send for circular. **JOHN S. CARTER,** Sole manufacturer, SYRACUSE, N. Y.



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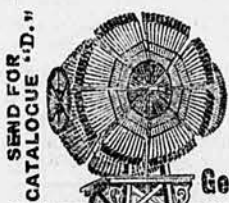


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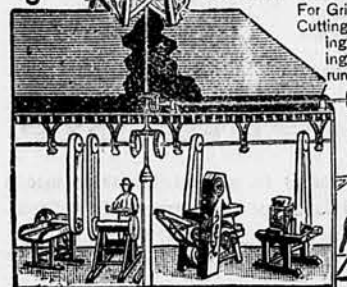
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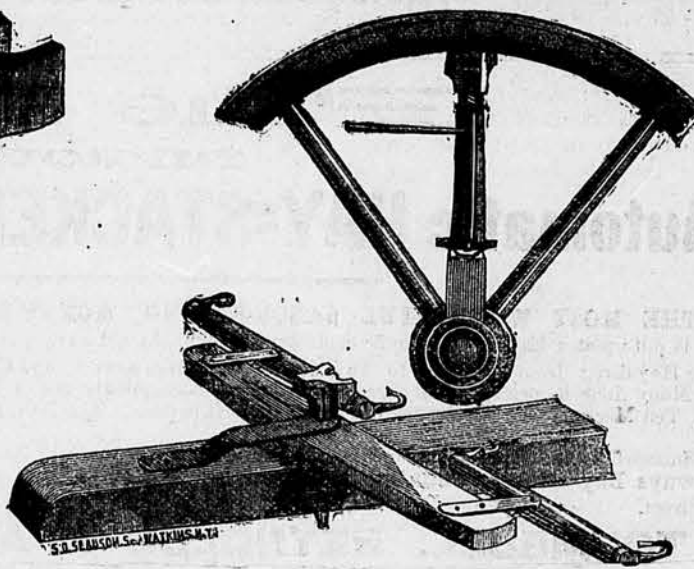
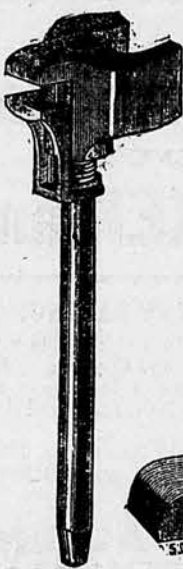
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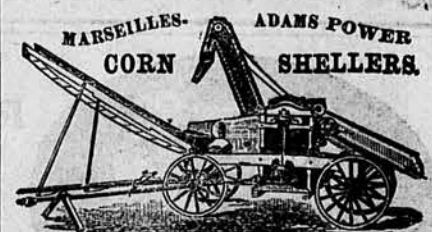
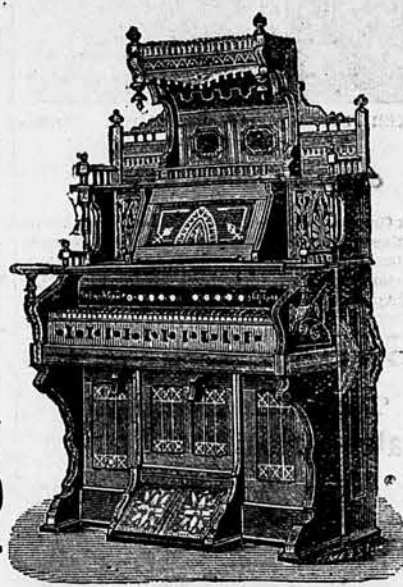
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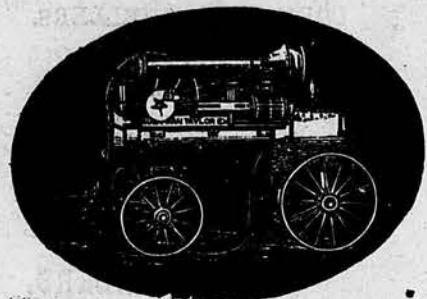
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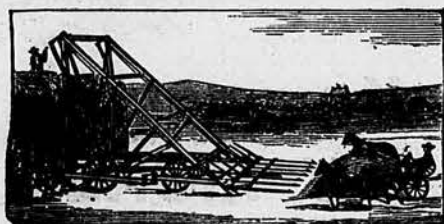
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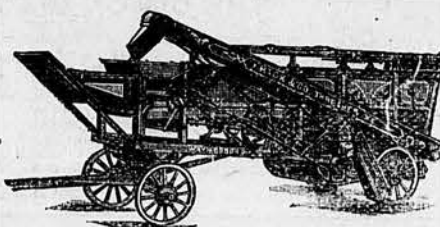
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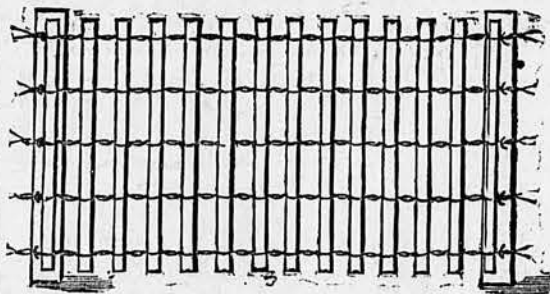
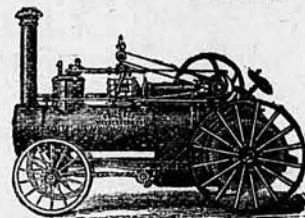
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We are manufacturing the best Farm, Garden and Ornamental Fence in the market. It will turn all kinds of stock. Our **SHORT FENCE** is made especially for Sheep and Hogs, and is the Cheapest, Strongest and Most Durable Fence that can be built.

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Whose Flocks Show SCAB or VERMIN are reminded that

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