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Report on the Cattle Diseases of Last Spring.

A report on the diseases of cattle last spring in Kansas, Missouri, Iowa and other places, was recently made by Prof. Law, of the United States cattle commission. The following is a synopsis of the report:

Prof. Law says that upon examination of specimens of the diseased limbs sent to Washington by Dr. Salmon, of the Department of Agriculture, it was evident that the disease was dry gangrene, with which he was familiar, as occurring in the north-eastern States from ergotism. Prof. Law saw specimens of badly ergoted hay taken from the farms occupied by the diseased herds in Kansas, Missouri, and Iowa, and became fully satisfied that the malady was only the comparatively simple dry gangrene, and not the much-dreaded apthous fever.

The report under consideration takes up and in detail disposes of the several theories advanced at the time, to account for the diseases. These were, that the cattle were infected by germs conveyed in the clothing of men recently from Scotland; that freezing was the cause of the loss of the feet; that standing in mud in freezing weather had brought on the disorder; and finally, that it was the result of insufficient food and gross general neglect. In refutation of these theories Prof. Law covers, more fully than has been done before, the grounds gone over by us at the time when the case was occupying so much attention. In relation to inoculation experiments undertaken to determine whether or not the disease was transmissible from one animal to another, the public has had less information. These experiments were begun immediately after the arrival of the Professor at Neosho Falls, the first inoculation having been made on April 16. That and all like experiments served to confirm the opinion that the disease had nothing of a contagious nature about it, and therefore could not by any possibility be the justly dreaded apthous fever, or foot-and-mouth disease, which has caused such tremendous losses of live stock in Great Britain. The report says of the inoculations:

"These negative results of the inoculation of matter from a fresh cow on cattle, sheep, and swine, not only exclude any possibility of foot-and-mouth disease, but further demonstrate that the disease is either not transmissible at all by contagion or inoculation, or if it be still held to be communicable from a first case to a second, that it is not transferable from a second to a third. We are fully warranted, therefore, in the claim that the affection can not be perpetuated indefinitely after the manner of an animal plague and that there is no danger of the generation in this way of a scourge which shall enter the channels of our cattle traffic and carry devastation to the herds of other States. It need not be claimed that a septic or other infection can not be conveyed from the first

victim, the limbs of which are sloughing off; the decision of this can be determined by further experiment. It is enough for the purposes of inter-state and inter-national commerce that all inoculations, from other lesions than those of the gangrenous extremities, have failed to transmit any disease whatever."

The report from which the above is quoted gives a comparison of fifteen points observed in the cases in the West, with a like number of characteristics invariably accompanying apthous fever. The evidence presented shows conclusively that the disorder was caused by the presence of ergot in the forage fed to the animals afflicted. The summer of 1883 was cloudy and damp, and therefore more than usually favorable to the development of ergot, the results of feeding forage thus affected appearing very soon after the cattle began to receive such forage.

The most prominent forms of disease resulting from the eating of ergot may thus be described: 1st. The nervous form, resulting in convulsions, paralysis, or lethargy. 2d. The gangrenous form, resulting in dry gangrene of the extremities. 3d. The abdominal form, resulting in constipation, impactions of the stomach or bowels, with subsequent diarrhoea and eruptions on or erosions of the mucous membranes of skin, known as mad itch. 4th. The abortion form, of which many cases occurred last spring in the districts affected, particularly in Illinois. Mad itch is a form that not infrequently appears in the markets of the West. Many cases of dry murrain occur in the West when cattle have been turned into fields of corn stalks, and the usual sources of supply of water have been closed to the stock. It should be noted that a number of maladies usually classed with anthrax, but really caused by molds and other fungi, bear a close resemblance to the disorders caused by smut or ergot. Taken internally or applied locally ergot causes contraction of in-

voluntary muscles. This contraction in the walls of the capillary blood vessels stops the circulation of the blood in and causes death of the parts farthest removed from the heart, and where the circulation is weakest; in other words, the occurrence of dry gangrene. It is in this way ergot arrests hemorrhages and mucous discharges, whether applied locally or taken internally. The subject of the effects of the different forms of ergot and smut is imperfectly understood, and, Prof. Law justly observes, offers a promising field to the patient investigator.

The smut of corn is well known in most regions of this country where corn is grown, comparatively few fields being entirely free of all indications of this growth. It has been regarded with unconcern by farmers generally, because its nature and effects have been little understood. The smut of barley, oats, and wheat, is also well known to farmers, and a description here will therefore not be attempted. A matter of more importance is the treatment of animals suffering from the effects of having eaten ergot or smut. Prof. Law says that treatment can be satisfactory only in the mildest cases, and in the early stages. When warmth, sensibility, and circulation have left, the recovery of the extremities can occur only after they have separated. If circulation and nutrition have been permanently arrested in a circumscribed part of the brain or spinal cord, it may still be possible to preserve life, but this leaves incurable paralysis.

"In mild and recent cases," says Prof. Law, "the treatment may be summed up in this: Make a thorough change from the ergoted or smutted fodder to a more wholesome diet, and preferably to one largely made up of succulent vegetables in a sound condition (turnips, beets, carrots, pumpkins, potatoes, apples, grass, ensilage, etc.); remove by purgatives any remaining ergot in stomach and bowels; solicit by the use of abundance of diluents (daily liberal salting

and free access to water at all times) and by diuretic (sweet spirits of niter, digitalis, or iodide or nitrate of potassa) the elimination from the blood and tissues of the active principles of the ergot; rouse by stimulants and tonics (ammonia, valerian, carnicum, angelica, musk, or alcohol and gentian) the falling vital and circulating power; and oppose the construction of the capillary vessels by such antagonistic agents as nitrite of amyle, chloral hydrate, chloroform, or opium. Locally, cleansing of the affected feed and the application of poultices containing a little camphor would be indicated in cases where there are as yet no indications of gangrene, but merely a raw sore between the hoofs, a local stimulant like wood tar, with or without a few drops of sulphuric acid, will greatly favor a healthy reaction. Similarly, if the disease is confined to the sole of the foot without leading to shedding of the hoof, but merely to turning up of the toe or to lameness, with creaking of the detached horn, this horn may be pared off, its edges thinned in a sloping manner on to the adjacent healthy horn, and the exposed secreting surface may be dressed with the tar and acid mixture referred to above. Sores in the mouth may be treated with borax or a solution of 1 part of carbolic acid in 50 parts water.

The Newark Machine Co. will Arise at Once from Its Ashes.

The Newark Machine Co., of Newark, O., whose factory burned on Saturday morning, July 5th, consumed a large number of Clover Hullers, Grain Drills, Rakes, Monarch Fans, etc. A large force of men are now at work building Clover Hullers, Grain Drills, etc. They are getting out material at the B. and O. shops, at Zanesville, and John H. Thomas & Sons, Springfield, who have kindly tendered them their factories, at which places they are getting out wood-work for Clover Hullers, etc., and expect to have some on the market by August 1st. They have received many letters and telegrams from different manufacturers throughout the U. S. offering them aid in any way. The firms that have heretofore supplied them with raw material, have telegraphed them offering anything they may have that could be used in the construction of their implements at low prices and long credits. Their insurance is about \$250,000, distributed among 61 first-class companies in this country and Europe, and the adjusters are now and at work and expect to finish the whole thing soon. The company has commenced building one shop 225 feet by 40 feet, 2 stories high, and 300 feet of shedding to be used for work shop and paint room, and they expect to be ready after August to fill any orders in their line of goods.

Base ball is more lively this year if possible than ever before.



Property of R. T. McCULLY & BRO., Lee's Summit, Mo., and H. V. PUGSLEY, Plattsburg, Mo.

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.

September 30—Clay Co., Mo., Short-horn Breeders' Association, Liberty, Mo.
October 6—C. S. Richholtz, Wichita, Kas., Short-horns.
November 6—S. E. Ward & Son, Short-horns, Kansas City, Mo.
November 20—Jos. E. Miller, Holsteins, at St. Louis, Mo.

May 20, 1885—Powells & Bennett, Short-horns, Independence, Mo.

Lameness in Horses.

Horses, like men, sometimes become lame suddenly, without having exhibited any symptoms previously. Among the chief causes of these mysterious attacks, as they are considered, to use the language of a writer in *Wallace's Monthly*, may be included blows inflicted by the animal's foot on the opposite leg during trotting or cantering, such blows not being hard enough to wound the skin, but sufficiently forcible to cause acute pain for a time, particularly if the injury is inflicted at a point where a branch of a nerve crosses. Sprain of ligament is also a cause of sudden lameness, and in many instances the injury is too light to induce swelling and heat in the part, and therefore does not produce any local signs of disease which can be recognized. Trifling injuries of this nature do not necessarily lead to permanent or even prolonged derangement; but their immediate effects on the animal's actions are often very marked.

Punctures from thorns cause temporary lameness, which is often of a very severe character for a time, as in the case which was related of a horse getting a thorn in the nerve which runs along the inner and posterior part of the hock. Thorns in the legs of hunters commonly cause a little swelling and heat in the leg, and now and then it is necessary to foment and poultice, to allay the irritation when the thorns cannot be extracted; but these are not the kind of cases to which we are referring as sudden and unaccountable lameness.

Concussion to the foot, from contact with stones or any kind of irregular surface, may be mentioned as another cause of sudden lameness which may escape detection. In order to inflict this injury, it is not necessary that a horse should "pick up a stone," that is, get a stone wedged under the shoe so firmly that it will remain in its position until it is forcibly removed. Severe concussion may occur from contact with the ground, and it is particularly likely to happen when the animal makes a movement for which he is not prepared. The meaning of the term "unconscious movement" may be illustrated by reference to the accident which has occurred to most people some time or other while going up or down stair in the dark, or walking along a dimly-lighted passage, in the middle of which an unexpected step is suddenly reached. The foot is lifted and put down again without any special intention; but the previous movements of an automatic kind have accustomed the walker to proceed regularly, with the idea of meeting the same level throughout, unless his eyes inform him to the contrary. The effect of a change in the level in either direction must be experienced to be understood, and those who have experienced the movement know what a terrible jar is inflicted on the whole body when the foot descends the short distance of a step which was not expected. When the step is up instead of down, there is much less risk of a "jar;" the danger of a forward fall is then most imminent. Horses have been known to fracture some of the bones of the leg while walking along the road; and it may be concluded that the concussion consequent

on an unconscious movement, such as a man may make when he expects a step more or less than actually exists, is the cause of the mischief. Short of fracture of bones, a sudden shock may cause temporary pain and sudden lameness without the cause of the derangement being at all apparent.

All the causes of sudden lameness which have been mentioned may be classed among obscure or unrecognizable causes of lameness, because, in the majority of cases, the local effects which they induce are concealed from view, and the lameness is commonly attributed to any cause but the true one.

In all instances of sudden and obscure lameness occurring to a horse which has no disease to which the attack may reasonably be referred, it is desirable to hesitate before any treatment of a severe kind is adopted, otherwise a horse may be laid up longer from the effects of the remedy than he would have been from the disease. The first thing to be done in any case of lameness in a fore-limb is to have the shoe removed and the foot carefully searched for a bruise or puncture which may by chance have been inflicted, with the agent which caused it remaining in the foot. If nothing can be found in the foot to account for lameness, the joints should be felt, to ascertain if any heat exists; and if, as will often happen, the cause of the defective action still remains hidden, the horse may be put into a loose box and watched for a day or two. In many cases the lameness will pass off as suddenly as it appeared; if it does not, the action should be carefully tested, with the view of detecting, by the character of the animal's movements, the situation of the disease.

A very useful test of a horse's action may be applied by causing the animal to trot on soft and hard ground alternately. Foot lameness will be most apparent while the horse is moving on hard ground; indeed, the action of a horse which is lame in the foot is sometimes so good on soft ground, that an ordinary observer would not detect any lameness. On the contrary, defective action which is due to sprain or injury of any kind affecting a joint will be quite as apparent on soft as on hard ground; and if the ground is at all heavy the lameness is increased, as greater effort is necessary to move the limbs under such conditions.

Should the observer see reason to conclude that the lameness is due to derangement of the foot, the old-fashioned plan of bleeding from the toe may be resorted to, and the horse, while resting in the stable for a week or ten days after the operation, should have wet swabs kept on all day, and cold water should be douched over them and the feet frequently. The great secret of the efficacy of cold water so applied lies in the effect of a sudden dash of the fluid in altering the flow of blood on the part. Congestion, or stagnation of the blood in the vessels, is far more likely to occur in the foot than inflammation, and the reaction which follows the cold water douche prevents the accumulation of blood in the smaller vessels, and helps to keep up healthy circulation. About a week after the bleeding the shoes will have to be removed and the wound examined, to find out if the healing process has been completed. Sometimes the part festers, and in such a case it is necessary to soak the foot in warm water and apply a little tincture of myrrh on a pledget of tow to the wound, after which the shoe is again lightly nailed on.

Generally, a horse which has been bled in the toe will be in a fit condition to be tested as to his action, in a fortnight; and if the lameness was only the consequence of slight concussion to the

foot, the action should be sound by that time, and the animal may return to his ordinary work. If a certain amount of lameness remains, it is better to give a longer rest, and a blister round the coronet will also be advisable.

Should the result of the examination, in any case of sudden lameness, lead the observer to exclude the foot and select a joint as the most probable seat of lameness, the treatment will vary according to the opinion which is formed of the nature of the derangement. For example, there may be evidence that the lameness was caused by a blow inflicted on the inside of one fetlock by the foot of the opposite leg. In this case, if there is any heat in the injured part, fomentation with hot water, followed by a wet bandage, will be all that is necessary for the case; but before the horse is used again the shoes should be looked to, in order that any error may be rectified. Shoes which are too full, as it is called—viz., extend too much beyond the edge of the horn—are likely to give rise to the accident referred to.

If a sprain of the hock or hip joint is indicated by the symptoms, a mild form of counter-irritant may be used. Soap liniment, with a little strong ammonia added, is as good as anything for this purpose; and it should be applied once a day, or oftener, with friction. In all cases of joint lameness it must be borne in mind that rest is absolutely necessary, and that no treatment will be effectual while the affected joint is kept in action.

Ewes at Weaning Time.

Breeding flocks for general purposes, when early lambs are not desired, will have their weaning time in this month. This is, therefore, a very critical month for them. It will be much less so if they have been well fed through the winter. But too many sheep owners think that breeding ewes may get along with a spare diet. It should be remembered that the breeding ewe must furnish the food for her lamb as well as supply her own wants.

If the ewes have not been fed well through the winter, but are in thin flesh, then it requires the greatest prudence in feeding, so as to give the needed strength and not derange the system so near to the time of weaning. Oats will be found the safest food, mixed with bran or middlings. This is a cooling food, and will not heat the blood too much at this critical period. One pint of oats, with a like measure of bran, will be a day's ration to be given in two feeds.

A week after lambing this ration may be increased by giving one-fourth pound of oil meal. Near the time of weaning, and for some days afterwards, these ewes should not be permitted to leave the yard and shed. It is much better to supply them with food and water in the yard, so as to preserve their strength and not to worry the lamb in following. The shepherd should consider his time well spent when devoted wholly to attending to the wants of the ewes and lambs at weaning time. Each lamb may need attention. Don't allow it to get chilled. When this is likely to occur, take it to a warm room and get it thoroughly warmed before taking it back to the ewe. It will not do to leave the ewes to themselves over night, and they should be watched carefully, as a little attention will save the lamb, which is such a large part of the income from sheep. Carelessness here is very expensive, and can not be afforded by any one who expects to make a profit on them.—*National Live Stock Journal*.

Fall plowing conduces to better crops and the work can be done at that season more conveniently than in spring.

Summer Management of Sheep.

The following is good advice if it is well followed, but has little or no meaning to the sluggard or the ne'er-do-well:

Never allow your sheep to be chased by a boy or dog, or anything else. A sheep is a gentleman of leisure that will pay you for waiting on him. If a sheep is separated from a flock, either in quiet or uneasiness, see about it; something is the matter with it. If you see the flock scare, or even a single sheep shy, go and learn the cause. It may mean business to you finally. If a ewe sheep lags behind the flock, catch it and try to learn the cause; there is one. Be prepared to catch any sheep of the flock in the barn-yard or corral without scaring them. Never catch a sheep by the wool, and when your hired man does so a second time, pull his hair like thunder or turn him off in a jiffy. When a sheep is lame, learn the cause, and if too lame to keep up with the flock, separate it, and see that it has plenty of feed and water.

Make it a strictly business matter to secure the personal comfort of your sheep every hour of the 365 days of the year. If miserable from any cause whatsoever, one day or one hour, you lose that much time in growth of wool, as well as of carcass. If you ever feel suspicious of harm or misfortune to your sheep at night, or even day-time, go and see about them. If a dog is worrying them, or if one is in trouble, you are as liable as not to have a premonition, and might save money by going to see. It will cost but little, and we have wished many a time we had gone ourselves. Nor are we superstitious in these things, we think. See your sheep come into the yard at night, and be very sure to see them go out in the morning. You can see by their general appearance whether they are doing well or not. A sheep's skin tells how it is doing, definitely and invariably. That rich, pinky hue of a sheep's skin is the most delicate test of health. It will be the very first symptom of failing health and condition to the careful shepherd. To the careless, shiftless man it is unnoticed until the dangers are upon him and remedies are unavailable.

Don't allow scab or ticks to annoy your sheep; live above all such lazy, slovenly ways and practices as unworthy of a sheepman. Learn all there is to be learned about your business in every department. Become familiar with every detail of your business. No sheepmen need the intelligence that the American shepherds need; and at no time has this been needed as just now. I do not like to admit that we, as sheepmen, are behind any other class of stockmen. I will not allow anybody to accuse us of stupidity or ignorance—not a bit of it; but now, just among ourselves, I do wish we had a little more snap and push in us as a whole. A few are fully up ahead, but there are too many who ignore any responsibilities in the status of sheepmen, and sheep and wool matters. When we become alive to our interest we shall secure a permanence and security in prices of wool and mutton, the lack of which greatly hinders the best efforts being put forth by the great mass of sheep raisers.

Let us try to avoid the disasters, panics and follies of the past by holding an even hand in the care and management of our sheep. If wool is lower in price, it will not remain so. If mutton is lower than other meat, it will go higher after a while. The ups and downs in sheep have been the rule in the past, not necessarily so, but for lack of intelligence and courage among sheepmen. But the extremes have followed each other with precision, and sheepmen that stayed by their business have always made by it. It is a little difficult to be very enthusiastic in sheep when there is little profit in them; and when there is big money in them we find it easy to care for and breed up to the standard. For all these things we need a pride and emulation beyond the price of money. We need to talk of sheep, and study sheep and sheep matters, as a lifetime business, rather than that of a year or two as an experiment. Western flockmasters are full of sheep enterprise. It would entertain an eastern sheep raiser to be among them.

In the Dairy.

Specks in Butter.

I notice that several of the writers in the *Farmer* have had their say about white specks in butter, and if the subject is not exhausted, a few remarks from a resident of the backwoods may find a place in your columns. I notice, first, that "Farmer's Wife," on page 181, asks, "How can 'Subscriber's' ashes have anything to do with specks in butter?" It is a theory with some that white specks are "milked" and are part of the mess. Others think it is an unnatural element in the milk, which, when exposed to the air, solidifies by these defective particles being drawn together and forming a speck. If this is so in either case, it results from a defective digestion; and if the cow is fed ashes, the potash which they contain will promote perfect digestion, which gives good blood, and then pure milk. That is the "science about the ration of ashes, occasionally repeated. "Elbow grease (another point she makes) will take specks out of butter." How? Please tell us. Working butter enough to take the specks out is an impossibility. They may be dissolved out by repeated washings of pure water and weak brine, probably requiring at least six or eight washings, but to work them out is a delusion. They may be worked in—ground down so fine that they are supposed to be out—but they are in there, only they are in a (re)finer state. The elbow grease has most likely worked the butter down to a waxy mass, destitute of grain, or buttery texture.

Specks in butter are always milk that has by carbonic gas become changed into a flake of curd. There are different kinds of specks, so called. Dried cream, cooked milk, and melted cream suddenly cooled back to about 60 deg. and appearing in the butter as nearly transparent lumps of all sizes from a small bean to a pin-head, and probably smaller.

The most frequent cause of specks in butter arises from two sources—allowing the cream to remain upon the milk until it is loppered, or churning too infrequently, and not frequently airing the cream after it has been removed from the milk. Why this is so is best answered by citing the fact that specks in butter are never found in the creamery butter, because they remove the cream before a change has taken place in the milk, and churn at the first approach of acidity. This butter, made from the cream from fifty farms, or gathered milk, for that matter, ought to make specked butter, but it don't for this reason; and yet if left at the farm, and there made by skimming the milk, once or twice a week, and letting the cream get sour, as distinguished from "ripening," seven of every ten of these products would have specks.

It may be asked why specks do not appear in the summer? They do, when the dairy has been milked all winter, and the milk is more largely charged with caseine, and the separation between it and the butter fats is more difficult, and even in very sour cream, on which mouldy patches have appeared. But in the summer the cream is thinner, is usually churned more frequently, and the butter is softer, which allows these specks more freedom to pass off in the buttermilk. Specks are not met with in the deep system of cold-setting of milk, because the extra bulk of cream is made up of milk; and so there is more "fluid" about the cream.

Specks may come as the result of churning too warm, an instance of which came to my notice a few days ago, when cream was by mistake

churned some six or eight degrees too warm. The balance of the cream of that same skimming showed no specks, churned the same day at 60 deg.

Scalding milk is a prolific source of white specks. It is cooked caseine, not specks of sour curd. In scalding milk above the natural animal heat, we reverse the conditions of gravity, and the caseine becomes the lightest element and rises to the top in the form of a wrinkly, leathery scum. When the milk cools and the fats have the ascendancy, they are obliged to absorb the film of cooked caseine, and if when this cream is churned there is not enough fluid matter in the form of water to dissolve this caseine, and it remains to reappear in the butter, the largest particles are visible to the naked eye, the finer portions visible to a microscope. If milk must be scalded, stir it continuously during the operation, so that no separation of the elements takes place. Why scald milk any way? No cream can rise while the temperature is going up in the milk, and scalding it is a cooking operation at best, and quite as good a result is obtained by cooling it down to 45 deg. as speedily as possible. This avoids expelling the delicate aroma by undue heat, and prevents raising the gravity of the caseous matter and the danger of its reappearing in specks.

It is quite likely specks may sometimes result from defective milk, when cows have been milked too long, others fed high on corn meal, and a low feverish condition of the udder exists; or even defective food might cause them, but these are infrequent.

I am confident, after making butter for twenty years, that with native cows, such as we usually find in dairies, and with good sound food, there is no reason existing why specks should not be avoided. I have given some of my reasons for their appearance, and will tell how to avoid them. Good cows and bright hay; corn meal, oat meal and middlings mixed, for grain; take off the cream with considerable milk, before the latter is sour; stir the cream after taking off quite frequently to liberate the carbonic acid gas, and replace it with pure air; churn the cream at the first appearance of acidity, not pronounced sourness; when the buttermilk appears distinct, draw it off and replace it with weak brine, at 50 deg.; this will set the color of the butter and dissolve the caseine; wash the next time with cold water, but stir the butter as little as possible; take the butter up in a worker and salt it, three-fourths ounce to the pound; work in the salt carefully and let it lie on the worker two hours, covered with a cloth. Then work it enough to expel the surplus moisture, and pack it, then and there. If any specks are found in this butter, get that eminent citizen of Boston, Hon. John Lawrence Sullivan, to "smash" them.—*Mortimer Collins, in Ohio Farmer.*

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CATTLE.

ALTAHAM HERD. W. H. H. Cundiff, Pleasant Hill, Cass Co., Mo., has fashionable-bred Short-horn Bulls for sale. Among them are two Rose of Sharon and one aged show bull. None but the very best allowed to go out from this herd; all others are castrated.

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 Fowls. 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.

D. R. 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.

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

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J. W. LILLARD, Nevada, Mo., Breeder of THOROUGHBRED SHORT-HORN CATTLE. Young Mary bull at head of herd. Young stock for sale. Satisfaction guaranteed.

W. M. P. 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. McGAUGH, 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.

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

CATTLE AND SWINE.

HILLSIDE STOCK FARM, W. W. Waltmire, Carbondale, Kas., breeds Thoroughbred Short-horn Cattle. Recorded Chester-White Swine a specialty.

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.

D. R. 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.

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.

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

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

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. BOWWELL, Breckenridge, Mo., has 1,100 Merino rams for sale. 250 of them are registered. His seven best stock rams shear from 27 lbs. to 38 lbs., weigh from 145 lbs. to 180 lbs.

A. F. WILLMARTH & CO., Ellsworth, Kas., breeders of Registered Spanish Merino Sheep. "Woolly Head" 685 at head of flock. Choice rams for sale. Satisfaction guaranteed.

SHEEP.

SAMUEL JEWETT, Independence, Mo., breeder of American or Improved Merino Sheep, Vt. Register. The very best. Choice stock for sale. Over 800 extra rams. Catalogues free.

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.

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.

W. M. 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 Swine. 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.

EGGS FOR SALE—Of Light Brahma and Black Spanish Chickens, by Mrs. M. Waltmire, Carbondale, Kas.

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.

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.

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MISCELLANEOUS

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THE LINWOOD HERD

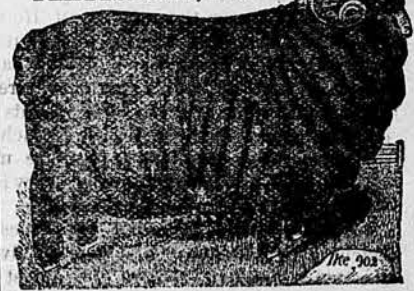
SHORT-HORN CATTLE



IMP. BARON VICTOR

W. A. HARRIS, Linwood, Kansas.
The herd is composed of VICTORIAS, VIOLETS, LAYENDERS BRAVITUS BUDS, SECRETS, and others from the celebrated herd of A. Cruickshank, Sittyston, Aberdeenshire, Scotland. GOLDEN DROPS, and URS, descended from the renowned herd of S. Campbell, Kinellar, Aberdeenshire, Scotland. Also YOUNG MARYS, YOUNG PHYLISSES, LADY ELIZABETHS, etc. Imp. BARON VICTOR 42824, bred by Cruickshank, and Imp. DOUBLE GLOSTER head the herd.
Linwood, Leavenworth Co., Kas., is on the U. P. R. R., 27 miles west of Kansas City. Farm joins station. Catalogues on application. Inspection invited.

H. V. PUGSLEY, PLATTSBURG, MO.



BREEDER of Vermont Registered Merino Sheep. The largest flock in the State. 350 rams and a number of ew for sale. High-class poultry. Catalogues free

Correspondence.

Notes and Queries from Russell.

Kansas Farmer:

Harvest is nearly finished, and a rainy day gives time to make a few notes by the way. Russell county has an exceedingly bountiful harvest this year, in fact more than will be gathered, for the grain ripened very slowly at first, holding the early grain back until there came a few hot days, when rye, winter and spring wheat and barley were nearly all ready to cut at once, and the result is there was not enough machines in the country to gather the grain before it went down, so that the headers cannot get it, especially the rye. There will be in this county hundreds of acres of good rye that will go back into the ground, besides a good deal of wheat wasted from lack of suitable machinery and time to use it. There has been more rain this year during harvest than ever known here before.

There is not a very large acreage of corn planted in the county this year, but what there is promises a large yield. All kinds of vegetables are fine. Grass for hay is better than ever before. Taking everything into consideration, Russell county has taken a long stride this year toward the front rank as a farming county, and with a climate that cannot be beaten in the State, and with facilities for stock raising equalled by few other counties, we think we are safe in saying it is a good place for real live men to come if they want to make a home.

The average of wheat so far as threshed is over 35 bushels per acre.

Cattle are in fine condition; no diseases except a few cases of black-leg among cattle that were poor in the spring. Sheep are doing exceptionally well; the clip is good both in quality and quantity.

That rye that was cut for hay turned out to be a good quality of feed, but very hard to stack so that it would keep. It is too slippery to keep still when the wind blows, and needs something on top of the stack to shed the water. Cattle, horses and sheep all like it when it is well cured.

We are glad to see that the Republican party in this State put a prohibition plank in their platform and have a nominee for Governor that is not ashamed to stand on it. We, for our part, feel proud of our State convention (with the exception of Mr. Anthony and some of his followers.) If the question of prohibition was to be resubmitted, this county would be on the right side this time. There is no saloon in the county, and but very few places where liquor can be obtained on the sly.

The cause of education has steadily advanced under the management of J. B. Corbett, our excellent County Superintendent, until we are not ashamed to compare standing with any county in the State, considering the time since the county was organized.

Inclosed I send you a specimen of wild grass that is coming in on the prairie which we have no name for; also, a specimen head of rye or wheat, we can't determine which. We have never found any of it except where there was rye and wheat on the same ground, nor any that was filled with grain. Please tell us what it is, and why there is never any grain in it, and oblige

RUSSELL COUNTY FARMER.

[N. B.—The samples have been forwarded to Prof. E. A. Popenoe, State Agricultural college, for his inspection. When we hear from him our correspondent will have the benefit of our opinion.—EDITOR.]

About Russian Apples.

Kansas Farmer:

I am glad to see the matter of Russian apples so ably treated by our mutual friend Brackett in late issue of your paper. I wish to add a little experience, already gained with some of these sorts, in this far off western part of the state, where such delusions as these Russian apples are more likely to gain credence than where they have been on trial for a much longer time.

In 1875 or 1876, I planted two trees of Duchess of Aldenbury and four or five of the Red Astrachan, two of the oldest and best established of these Russian sorts. Neither of them have been very satisfactory in growth, not rating in this particular above fair, and not up to an average. The last named has thus far not shown a bloom, in fact it seems to be one of the laziest upon

my list. The Duchess blossomed well and set a nice crop for so young a tree last spring but a heavy wind early in this month blew them nearly all off; and notwithstanding we had our first mess of green apple sauce home grown here upon the plains from these windfalls, and notwithstanding also that it was by the addition of plenty of sugar pretty good, I will plant no more of this sort, because there are plenty of native sorts which are better growers, better bearers, and will hold their fruit to greater maturity.

MARTIN ALLEN.

From McPherson County.

Kansas Farmer:

The reputation of McPherson county, as a wheat growing district, so well established, will not suffer this year. All over the county the crop is a success. A month ago there was an alarm in some parts of the county, especially south of McPherson, on account of the appearance of a great deal of cheat and some red rust; but the cheat proved to be confined to a few fields, and the rust did little or no damage. In other parts, particularly the west, the chinch bug made his appearance in large numbers; but he came to late too injure the crop materially. The wheat went down badly and the berry little shrunk, but the yield will be good. The crop is almost all harvested and in fair shape. Never in the experience of wheat growers has wheat ripened so simultaneously or speedily, and never has there been such a demand for machinery. A great deal of wheat has been mown and taken up like hay. Of course in such cases the harvest has been a wasteful one; yet the crop gathered will be a good one and will equal—if it does not surpass that of last year.

The Smokey Valley has this year presented a most lively picture. From the eminences on either side, you can see for miles the large fields of golden wheat interspersed with cornfields of darkest green, good houses and barns, beautiful groves, and every evidence of prosperity.

It is barely possible that the seasons for Kansas are changing. This summer there have been frequent and heavy rains, and vegetation has had a tropical growth. Just now—July 16, we are having here on the Smoky one of the heaviest rains of the season, it having continued for twelve hours without much promise of an early cessation. Farms are flooded, streams swollen and if the hot winds do not do mischief corn is an assured crop. It is now tasseling and shooting. With this outlook for a corn crop, with the large oat and grape yield, farmers may safely count on an easy winter and fat stock, and bid farewell to fears of starvation even if they do not get a high price for wheat.

M. D.

Why We Take the "Farmer."

Kansas Farmer:

I seldom see acknowledgements of good received through the reading of the FARMER. Our experience seems to us somewhat remarkable, and though no adept in the art of "writing for the papers," we crave permission to tell of what one copy of the KANSAS FARMER did for us, as an inducement to all who read it to be sure that if not now subscribers they will at once become so.

In the latter part of February last, being in need of information which we could find only in a farmers paper, we obtained from a neighbor a copy of the KANSAS FARMER of the issue of June 27th 1883. In an article on 1st page entitled "Philosophy of Harrowing" husband found directions for making a harrow which he and others think, after careful trial, surpasses the work of any other harrow he has ever seen.

But the article which laid us under the greatest obligation was one entitled "Insect Enemies," in which were clearly and simply noted the orchards' most dreaded enemies and the best mode of extirpation. Among them was peach borer and their detection by the thick gum around the collar of the tree. Now we have read and studied "bug-ology" until our brain ached, have seen supposedly valuable works on these "critters;" but with all our reading and studying we had never learned to "spot" him, and have seen our beautiful trees one by one fade and die wholly unable to fight against the unknown foe. We have a young peach orchard of some 50 valuable budded trees, and after carefully scanning the outside, not knowing where else to look, we had decided that they were free of all injurious insects; but now,

armed with our new found knowledge, we hasten with knife and spade to our peach trees, and follow directions, we laid bare the collar of tree after tree, and there, in all their native ugliness, lay dozens, and in some trees, scores of borers which were quickly disposed of and our orchard saved. We firmly believe that had it not been for that one copy of the FARMER and that particular article, not a half dozen of our trees would have been standing to-day, and all owing to a few words as to the detection of the enemy by the gum around the base of the tree.

Still another article contained hints as to the culture and growth of chocolate, a beverage so dearly beloved by most women, and also an offer of seed by the writer. I at once, sent for some of the seed which I planted and from its appearance I think I may be able to offer the writer and the editor an excellent cup of chocolate should they come this way.

Of course after finding so much valuable help in one paper the least return we could make was to subscribe, which we did at once and have found in every copy some hints which were worth more to us than the cost of the paper for a year. And this, friends, is why we take the KANSAS FARMER. A word to the wise is sufficient.

FARMER'S WIFE.

July 15, 1884.

From Brown County.

Kansas Farmer:

Small grains are about all in shock. No stacking done yet owing to recent heavy and continued rains. Haying is also much retarded from the same cause. Fall wheat is very fine; rye is also a full crop, where not pastured too late. Oats are a comparative failure caused by rust; but the corn and potatoes are just booming this damp weather. Live stock of all kinds is doing exceedingly well.

S. D.

HIAWATHA, BROWN CO., July 17, 1884.

Feeding Show Animals.

Speaking of Forepaugh's show, an exchange describes the feeding of the animals thus: "Just then the attendants came running in with large baskets filled to the top with the raw bloody beef on which the 'cat' animals dine, and arming themselves with long iron rods they placed the huge chunks of meat on the ends and put them within reach of the beasts. In a moment every lion, tiger, leopard, bear and hyena was roaring his loudest and biting and scratching his neighbor. These animals were each given a lump of meat weighing about ten or fifteen pounds. The sea lion got about the same quantity of white fish. The melancholy-looking giraffe received his rations of bread. The hippopotamus and rhinoceros were given a huge quantity of carrots and potatoes. The zebras, the antelopes and sacred cattle were given grain. The other animals and birds received their allowance. In a few minutes nothing could be heard in the big tent but the sound of crunching meat and the smacking of huge jaws, and the last thing the reporter saw as he left was the tiger cubs fighting over a bone the mother had discarded."

At the exhibition to be given in Topeka on the 30th inst., all the wild animals will be fed in presence of the audience.

The Chicago & Alton Railroad

Is the best route from Kansas City to the East, because—

There is no change of cars of any class from Kansas City to Chicago.

There is no change of cars of any class from Kansas City to St. Louis.

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Sure connections in Union Depots at Kansas City, Chicago, St. Louis and Bloomington.

Palace reclining-chair cars, elegant and comfortable, free of charge, are run through in all trains, day and night, from Kansas City to Chicago, Kansas City to St. Louis and St. Louis to Chicago.

This is the only line running a sufficient number of these cars in all trains to accommodate all of its patrons.

Pullman palace cars, the newest and best, are run through without change from Kansas City to Chicago, Kansas City to St. Louis and St. Louis to Chicago.

It is the only line running palace dining cars to or from Kansas City in any direction. You "don't have to" miss a meal in order to make connections at Kansas City, if your ticket reads via the Chicago & Alton railroad.

A Supreme Court Decision.

A case was recently decided by our Supreme court which has excited a great deal of interest, chiefly, we suppose, because the decision is not generally well understood. The prohibitory law authorizes County Attorneys to file complaints against persons charged with violating the prohibitory liquor law, and says they may do so upon "information and belief." The County Attorney of Allen county filed a complaint against a man named Gleason for selling liquors in violation of law, and verified the complaint by his own oath on "information and belief." Gleason objected to being arrested and tried on an oath of that kind, claiming that a complaint must be positive in its statement. He was convicted in the District court, and he appealed to the Supreme court, where his objection was held good, and the case was remanded for another trial on the proper oath being filed.

A great many persons believe the decision seriously affects the law; but the truth is, it does not affect the law at all. It is a simple statement of a legal rule established centuries ago.

It was not decided in that case that the County Attorney could not properly verify an information charging an offense under the prohibitory liquor law of 1881; or that he could not do so merely upon information and belief; or that an information thus verified would be insufficient for the purposes of a trial, or for the conviction and punishment of the offender; but what was decided was, that where an information thus verified is filed in the proper court, and it is then desired to arrest the defendant, that before the warrant for his arrest can properly be issued a still further oath or affirmation should be filed, stating in substance or in terms that the matters and things set forth in the information "are true," or setting forth facts showing that the same are true.

Where no oath or affirmation has been made or filed in a case, except upon information and belief, but a warrant is nevertheless issued, and the defendant is arrested upon such warrant, his remedy is not to dismiss the action or set aside or quash the information or complaint; but it is a motion merely to set aside the warrant and to discharge himself from the arrest. The fact that a complaint or information under the prohibitory liquor law is verified merely by the County Attorney, and merely upon information and belief, is no ground for dismissing the action or for setting aside or quashing the complaint or information, for such a verification is authorized by section 12 of the prohibitory statute; but such a complaint and verification do not authorize the issuing of a warrant for the arrest of the defendant. But if a warrant is so issued, and the defendant waives the irregularity in issuing the same, he waives all, and may be tried, convicted and punished upon the complaint or information. Neither does the decision in the Gleason case relieve the County Attorney from performing any of the duties enjoined upon him by section 12 of the prohibitory liquor law. He must obey that law, and in addition thereto he must see that a sufficient oath or affirmation as required by section 15 of the bill of rights is also made or filed in the case to justify the issuing of a warrant for the arrest of the defendant; and if he does not obey that law, he will be subjected to all the penalties prescribed by that and other laws for such disobedience. It will therefore be seen that the decision in the Gleason case is just what any lawyer familiar with the constitution and laws of the State would expect it to be.

Horticulture.

Forest Tree Planting.

First, as to what varieties to plant. The Kansas State Horticultural Society in the report for 1883, recommends forest trees for Kansas in the order following: Black walnut, catalpa (western hardy), white ash, white elm, Osage orange, cottonwood, box-elder, honey locust, soft maple, red elm.

In the personal experience and observation of the writer hereof, black walnut and catalpa are easily grown. And they grow fast. Catalpa is a much more rapid grower than walnut, but it is not any more certain in growth. Everybody, we suppose, knows something about the value of black walnut for lumber. Catalpa is good for manufacturing purposes in all cases where hardness and strength are required. It takes a fine finish and is handsome in furniture. It is good for posts to be set in the ground. We have in this office a piece of catalpa said to have been split and sawed a year or so ago from a post set in General Harrison's farm in Indiana seventy-five or eighty years ago. It has been satisfactorily tested for railroad ties, and railway companies are now growing large quantities of it for that purpose. (There are two varieties of catalpa, at least it is so generally believed. We are writing about the *hardy* catalpa, botanically known as *catalpa speciosa*.)

Walnut trees can be grown successfully from seed, only. It is useless to transplant, for it usually fails unless the tree is very young, and all the roots are secured. The tap root runs deep, and unless it is secured whole, the life of the tree is very uncertain. Better take the seed and start at the beginning. When walnuts are ripe, they may be planted at once in a seed bed or in the ground where they are expected to grow. It is usual, however, and better, we think, to sprout them before setting out. Scatter the walnuts over a piece of loose, rich soil, and cover them lightly with sand or soil, or even hay or straw—something to assist in keeping the ground soft and moist. Do not cover deep. The nuts must be exposed to frost. They must not, or ought not to be tramped over by animals or persons at any time after seeding, but especially in the spring, after they begin to sprout. The nuts may be scattered promiscuously over the ground, or they may be scattered in rows, just as one prefers. Nearly all of the sound and perfect nuts will crack and send forth roots and stems early. When this takes place, the young plants should be removed to the places they are to occupy permanently. In many cases the nut will still be attached to the plant. In removing plants, they may be lifted by running a flat shovel under them, as if you were raising sod, and then drop the shovelful of soil and plants on a board or on the ground anywhere off the nut bed, and take out the plants quietly. Reject all damaged ones. Carry them to place in a basket in which a layer of soft, damp soil or sand was laid. Have the young plants laid on this and all the roots covered. Put in orderly so that they may be removed from the basket, one at a time, without disturbing others.

Plant by hand only. The soil having been previously prepared, make a hole according to the length of the sprout. Cover carefully with fresh, well pulverized soil, leaving a little of the top of the sprout above ground. We would not advise a greater depth than three inches in any such case; and it sometimes is necessary to set very shallow. Sprouts that are not two inches long ought not to be removed until they grow longer. Three to five inches is a good

height. Pack the soft earth well about the plant with the hand or foot, and let it grow. The plants may be taken up and transplanted at any time when they are the proper height. If the work is done in midsummer, greater care is required to avoid danger from the heated and dry atmosphere. But we believe that anywhere in Kansas, young walnut trees would be large enough to set out in May. The average depth of planting ought to be about two inches. That suggests a plant three or four inches long.

Catalpa seed is better kept over till spring and then soaked and sown in seed beds for sprouting or in ground where the trees are desired. A seed bed is best made of rotted vegetable matter, as leaves or strawy manure, and soil. It is better for being a little sandy, for sand preserves looseness which is very important. The seed bed must be kept moist and protected from cold and from heavy rains. The cold might freeze the early sprouts, and heavy rains would wash the earth off the seeds, and might even wash away the seeds themselves.

After the seeds are sprouted, let them be removed and transplanted the same as walnut trees are. In setting out any kind of young tree, do not use a dibble or pointed stick, but make the hole with a hoe, and set every tree with as much care as if it were the only one you have.

It is recommended to set in rows one way at any rate to make cultivation easy. Four feet apart is a good distance for the rows either way. Cultivate the same as corn. Keep the ground as clean and mellow as if any other crop were growing there. This is very important. Every weed is a sponge absorbing moisture that the trees need. Young trees must be well cared for or they will soon dwindle away to dead or valueless sticks. But with good care their growth is very gratifying.

In a few years the trees will shade the ground. Their fallen leaves form a mulch and weeds do not grow. When the trees begin to crowd one another, they must be thinned out by removing such as are most in the way and can be best spared. The sticks removed will have value for many uses about a farm—for posts, fuel, etc.

If the rows are set six or eight feet apart in the first place, then it is best to cultivate potatoes, turnips, cabbage, or some such crops between the rows of trees. This occupies all the land and insures cultivation, which is the great thing.

Whether the first year's growth should be cut away, or, even that of the second year, depends on the character of the growth. If the stem grows unusually fast and slender, we would advise cutting back to within six inches of the ground, in case of any tall variety. This gives greater strength of trunk and root. This should be repeated the second year if the growth is not sufficiently stocky. But when growth is ordinary and normal, let nature alone.

Walnuts and catalpa seed may be obtained from any responsible seedsman. By consulting our advertising columns one may see cards of men who deal in seeds.

The cajú is a Brazilian fruit which has some curious properties. The seed grows outside the fruit, and is encased in a pulpy covering filled with a very powerful acid capable of blistering the skin. When the seed is roasted it is edible, but the smoke which arises from the roasting irritates the skin, and, if it enters the eyes, destroys the sight.

S. Barnum & Co., 197 and 199 Kansas avenue, Topeka, are prepared to serve the public, at either wholesale or retail, with best quality of dry goods, clothing, carpets, etc. Prices as low as the lowest. Goods as good as the best.

Kansas Fairs.

A revised list of State, district and county agricultural societies in Kansas that will hold fairs in 1884, with names of Secretaries and places and dates of holding fairs:

Shawnee county—Kansas State Fair Association, Topeka, G. Y. Johnson, Secretary, Sept. 8, 9, 10, 11, 12 and 13.
Douglas—Western National Fair Association, Lawrence, R. W. Cunningham, Sec'y, Sept. 1, 2, 3, 4, 5 and 6.
Anderson—Anderson County Fair Association, Garnett, M. L. White, Sec'y, Aug. 26, 27, 28 and 29.
Bourbon—Bourbon County Fair Association, Fort Scott, Ira D. Bronson, Sec'y, Oct. 7, 8, 9 and 10.
Brown—Brown County Exposition Association, Hiawatha, C. H. Laurence, Sec'y, Sept. 16, 17, 18 and 19.
Butler—Butler County Exposition Association, El Dorado, W. H. Litson, Sec'y, Sept. 16, 17, 18 and 19.
Chase—Chase County Agricultural Society, Cottonwood Falls, W. P. Martin, Sec'y, Sept. 23, 24, 25 and 26.
Cherokee—Cherokee County Agricultural and Stock Association, Columbus, John Henderson, Sec'y, Sept. 2, 3, 4 and 5.
Clay—Clay County Agricultural Society, Clay Center, D. A. Valentine, Sec'y, Sept. 23, 24, 25 and 26.
Cloud—Republican Valley Fair Association, Concordia, Thos. Wrong, Sec'y, Sept. 16, 17, 18 and 19.
Coffey—Coffey County Fair Association, Burlington, J. E. Woodford, Sec'y, Sept. 16, 17, 18 and 19.
Cowley—Cowley County Fair and Driving Park Association, Winfield, Ed. P. Greer, Sec'y, Sept. 23, 24, 25, 26 and 27.
Crawford—Crawford County Agricultural Society, Girard, A. P. Riddle, Sec'y, Sept. 23, 24, 25 and 26.
Davis—Kansas Central Agricultural Society, Junction City, P. W. Powers, Sec'y, Oct. 1, 2 and 3.
Dickinson—Dickinson County Agricultural and Industrial Association, Abilene, H. H. Floyd, Sec'y, Sept. 23, 24, 25 and 26.
Doniphan—Doniphan County Agricultural, Horticultural and Mechanical Association, Troy, Thos. W. Heatley, Sec'y, Sept. 23, 24, 25 and 26.
Elk—Elk County Agricultural Society, Howard, Thos. Bruce, Sec'y, Sept. 18, 19 and 20.
Ellis—Western Kansas Agricultural Fair Association, Hays City, D. C. Nellis, Sec'y, Sept. 24, 25 and 26.
Franklin—Franklin County Agricultural Society, Ottawa, A. H. Sellers, Sec'y, Sept. 23, 24, 25, 26 and 27.
Greenwood—Greenwood County Agricultural Association, Eureka, A. W. Hart, Sec'y, —.
Harper—Harper County Agricultural and Mechanical Association, Anthony, John D. Brown, Sec'y, Sept. 3, 4 and 5.
Harvey—Harvey County Agricultural Society, Newton, Allen B. Lemmon, Sec'y, —.
Jefferson—Jefferson County Agricultural and Mechanical Association, Oskaloosa, A. J. Buck, Sec'y, Oct. 1, 2 and 3.
Jefferson—Valley Falls Kansas District Fair Association, Valley Falls, M. M. Maxwell, Sec'y, Aug. 26, 27, 28 and 29.
Jewell—Jewell County Agricultural and Industrial Society, Mankato, Geo. S. Bishop, Sec'y, Oct. 1, 2 and 3.
Jewell—Jewell District Fair Association, Jewell, Jno. S. Foster, Sec'y, Sept. 17, 18 and 19.
Johnson—Johnson County Co-operative Fair Association, Edgerton, C. M. T. Hulet, Sec'y, —.
Lincoln—Solomon Valley Farmers' Club, Ingalls, N. B. Alley, Sec'y, Sept. 11 and 12.
Linn—LaCygne District Fair Association, LaCygne, O. D. Harmon, Sec'y, Sept. 30 and Oct. 1, 2 and 3.
Marion—Marion County Agricultural Society, Peabody, L. A. Buck, Sec'y, Sept. 2, 3 and 4.
Marion—Marion Fair Association, Marion, Geo. C. Lockwood, Jr., Sec'y, Sept. 23, 24, 25 and 26.
Marshall—Marshall County Fair Association, Marysville, L. W. Libbey, Sec'y, Sept. 23, 24, 25 and 26.
McPherson—McPherson County Fair Association, McPherson, Jas. B. Darrah, Sec'y, Sept. 30 and Oct. 1, 2 and 3.
Morris—Morris County Exposition Company, Council Grove, F. A. Moriarty, Sec'y, Sept. 30 and Oct. 1, 2 and 3.
Morris—Morris County Agricultural Society, Parkerville, C. N. Hull, Sec'y, —.
Nemaha—Nemaha Fair Association, Seneca, Abijah Wells, Sec'y, Sept. 2, 3, 4 and 5.
Osage—Osage County Fair Association, Burlingame, C. H. Taylor, Sec'y, Sept. 16, 17, 18 and 19.
Ottawa—Ottawa County Agricultural Society and Mechanics' Institute, Minneapolis, A. C. Jackson, Sec'y, Sept. 30 and Oct. 1, 2 and 3.
Phillips—Phillips County Agricultural and Mechanical Association, Phillipsburg, J. W. Lowe, Sec'y, Oct. 8, 9 and 10.
Rice—Rice County Agricultural, Horticultural and Mechanical Fair Association, Lyons, C. W. Rawlings, Sec'y, Sept. 24, 25 and 26.
Riley—The Blue and Kansas Valley Agricultural Society, Manhattan, S. A. Sawyer, Sec'y, Sept. 23, 24, 25 and 26.
Rooks—Lanark Agricultural Society, Stockton, Albert Lambert, Sec'y, Oct. 9, 10 and 11.
Saline—Saline County Agricultural, Horticultural and Mechanical Association, Salina, Chas. S. Martin, Sec'y, Sept. 23, 24, 25 and 26.
Sedgwick—Arkansas Valley Agricultural Society, Wichita, D. A. Mitchell, Sec'y, Sept. 30 and Oct. 1, 2 and 3.
Sheridan—Sheridan County Agricultural and Mechanical Association, Kenneth, Geo. W. Crane, Sec'y, —.
Sumner—Sumner County Agricultural and Mechanical Association, Wellington, I. N. King, Sec'y, Sept. 17, 18 and 20.
Washington—Washington County Exposition Association, Washington, C. W. Aldrich, Sec'y, Sept. 2, 3, 4 and 5.
Washington—Washington County Live Stock, Agricultural and Mechanical Association, Greenleaf, F. L. Joslyn, Sec'y, Sept. 10, 11 and 12.
Woodson—Neosho Valley District Fair Association, Neosho Falls, R. P. Hamm, Sec'y, Sept. 22, 23, 24, 25, 26 and 27.
Wyandotte—Wyandotte County Industrial Society, Wyandotte, M. B. Newman, Sec'y, —.

Importance of Good Stabling.

A New York paper, commenting on the reports of glanders among Kansas horses calls attention to the miserable stables in which some of our horses are compelled to live. It is somewhat surprising at first thought, the writer says, that more of this disease should be found in Kansas than any other State at the present time. But one who knows what miserable hovels are made to serve as stables for farm horses in Kansas, and how enervating and depressing to the physical system the occasional hot weather is and in how many cases the water supply is exceedingly short and bad, the wonder ceases, and on the other hand surprise may well be felt that there is not more of this disease than there is even in that State, where pure air, pure water and comfortable shelter are as easily provided as elsewhere. This disease is essentially one of blood poisoning by absorbed pestiferous matter, from the air chiefly. It used to be exceedingly prevalent in military stables, where horses were crowded as closely as possible. But as sanitary science gradually worked its way into the cavalry stables and an abundant supply of pure air was provided, and cleanliness was enforced in every way, glanders disappeared, and now it is one of the rarest diseases among these horses. So it would be among farm horses if the same reasonable care were exercised to practice cleanliness, to provide roomy and well-ventilated stables, and to secure fresh pure water from wells for the horses' use.

The most fatal impurities in drinking water are what are known as organic albuminoids, which produce ammonia. When water polluted with this waste matter is taken into the stomach the poison is absorbed into the blood and produces various diseases. The water taken into the system is a very small quantity as compared with the air taken into the lungs. Some idea of the importance to the well-being of a horse of pure air may be gained from the fact that the absorptive surface of the lungs is about twelve times as extensive as that of the whole skin, this surface being divided up among millions of exceedingly small air cells which are continually at work absorbing oxygen from the air and discharging carbonaceous and nitrogenous matter. When with this fact we consider how the atmosphere of a stable is usually polluted by the pungent, poisonous vapors of decomposing excrement, liquid and solid, and which are breathed over and over again during the hot summer nights, and how carefully the fresh air is excluded, or how the air admitted is fouled by manure heaps or yards outside, we may have little wonder that the horses are gradually poisoned and their lives shortened one-half. With this evil there are the clogged up skin, the pores of which, infinite in number, for the purpose of discharging foul matter from the blood, are closed up and prevented from exercising their functions, and the myriads of flies which torment the wretched beasts all night long and so weaken the nervous system already greatly depressed. Thinking of how we should suffer under these circumstances, we may realize how our equally-sensitive horses are injured, and will be induced, for our own profit at least, to provide our beasts, as far as we possibly can, with every comfort at this season.

\$11,950
IN CASH
GIVEN AWAY
ATTENTION, SMOKERS!

All contestants for the 25 premiums aggregating above amount, offered by Blackwell's Durham Tobacco Co., must observe the following conditions on which the premiums are to be awarded: All bags must bear our original Bull Durham label, U. S. Revenue Stamp, and Caution Notice. The bags must be done up securely in a package with name and address of sender, and number of bags contained plainly marked on the outside. Charges must be prepaid. Contest closes November 30th. All packages should be forwarded December 1st, and must reach us at Durham not later than December 15th. No matter where you reside, send your package, advise us by mail that you have done so, and state the number of bags sent. Names of successful contestants, with number of bags returned, will be published, Dec. 22, in Boston, *Herald*; New York, *Herald*; Philadelphia, *Times*; Durham, N. C., *Tobacco Plant*; New Orleans, *Times-Democrat*; Cincinnati, *Enquirer*; Chicago, *Daily News*; San Francisco, *Chronicle*. Address, BLACKWELL'S DURHAM TOBACCO CO., DURHAM, N. C. Every genuine package has picture of Bull. See our next announcement.

The Home Circle.

If We Knew.

If we knew the woe and heartache
Waiting for us down the road,
If our lips could taste the wormwood,
If our backs could feel the load—
Would we waste the day in wishing
For a time that ne'er can be;
Would we wait in such impatience
For our ships to come from sea?

If we knew the baby fingers
Pressed against the window pane,
Would be cold and stiff to-morrow—
Never trouble us again—
Would the bright eyes of our darling
Catch the frown upon our brow,
Would the prints of rosy fingers
Vex us then as they do now?

Ah, those little ice-cold fingers,
How they point our memories back
To the hasty words and actions
Strewn along our backward track?
How those little hands remind us,
As in snowy grace they lie,
Not to scatter thorns, but roses
For our reaping by and by.

Strange we never prize the music
Till the sweet-voiced bird has flown!
Strange that we should slight the violets
Till the lovely flowers are gone!
Strange that summer skies and sunshine
Never seemed one-half so fair,
As when winter's snowy pinions
Shake their white down in the air!

Lips from which the seal of silence
None but God can roll away,
Never blossomed in such beauty
As adorns that mouth to-day;
And sweet words that freight our memory
With their beautiful perfume,
Come to us in sweeter accents
Through the portals of the tomb.

Let us gather up the sunbeams,
Lying all around our path;
Let us keep the wheat and roses,
Casting out the thorns and chaff;
Let us find our sweetest comfort
In the blessings of to-day,
With a patient hand removing
All the briars from our way.

THE MOUNTAIN OF PITY.

The National Pawn Shop of Mexico--Another Interesting Letter from Emily Pierce in Western Rural.

The last sensation in the City of Mexico has been the "run" on the Monte Pio bank which resulted in that institution closing its doors, leaving a large amount of its circulation floating about the country. Like all banks that have been considered staunch, and suddenly submerge, its promises of speedy resumption were at first implicitly believed, but the fact is, its paper depreciates daily and a cord of Monte Pio bills are about as valuable as an equal bunch of confederate scrip at the close of our late war. This bank was a branch of a unique and famous institution, which has become one of the features of Mexico, the Monte de Piedad or National pawn shop. The translation of this title, is "Mountain of Pity" and its object is philanthropic to the last degree. It was founded in 1744, by the Count de Regla Don Pedro Terreros, who organized and matured the plan on which the institution is at present worked, and endowed it with \$300,000 out of his private fortune. His object was to relieve the poor, and those in bitter financial straits from the empenos or pawn shops, as well as to lend a helping hand to those in comfortable circumstances who might be pressed for money by some sudden or unexpected emergency. The Monte Pio is one of the oldest edifices in the Capital, having been built immediately after the conquest for the private residence of Cortez, and for generations it was used as official quarters for the Viceroy. Happily for the nineteenth century tourists, it has been spared by the modern hand of improvement. Its doors and windows, stair cases and ceilings, patios and balconies, are the same as when the haughty Hidalgos flitted in and out attired in all the bravery of velvet and lace; and if the walls could speak they would reveal dark secrets plotted by cunning brains that are long since dust. The rules and regulations permit the lending of money on most liberal terms; the depositor gets about one third value on goods deposited. The yearly rate of interest never goes lower than three per cent. nor higher than twelve and a half, and the tickets have to be renewed every eight months. When the depositor ceases to pay the interest on the loan advanced, his pledges, whatever they may be, are retained in the bank for seven months, they are then carefully appraised

by paid expert officials, and are offered for sale at the appraisers' valuation for one month. If at the expiration of the month they remain unsold they are again valued, this time at a lower figure, and again offered in the salesrooms on the lower floor. For six months this process goes on, when if still unsold, the goods are offered at public auction and knocked down to the highest bidder. If the goods bring less than the value set upon them by the appraisers the latter must themselves make up the deficit to the bank and if they bring more than the loan and interest the amount is refunded to the depositor. On certain days in each month certain kinds of goods are sold; one day for jewels, another for clothes, another for odds and ends. During the week of the panic, the establishment pushed business and sold more than under ordinary circumstances they would have disposed of in ten years. It is a famous resort for tourists "those curious Yankees," who here pick up all kinds of bric-a-brac, curiosities and valuables.

It is necessary to get a permit to go through the entire establishment, especially for an inspection of the vaults, which are a veritable Aladdin's cave. There are picture, silver plate, candelabra, timepiece and bric-a-brac rooms; and an immense jewel department, which shows the richest and rarest collection perhaps in the entire world. Pearls, rubies, emeralds and diamonds; heirlooms descended from the time of the conquest, deposited here at various periods, partly for safety, for it is the "safe deposit" of Mexico, and partly for the consideration of hard cash. Could their history be told, it would be vastly more dramatic and interesting than any history of Mexico that has ever been written covering a time when loot was a recognized institution and pillage the custom of the country. It is the proud boast, that during all seasons of disaster, the Monte Pio has been respected; church altars might be robbed, but its treasure was safe. It was only Mexican safety, however, all on the surface; for during the frequent reigns of terror, the church came to the rescue. There is a subterranean communication with a convent of nuns, and in times of danger, the jewels were carried by a private staircase out of the Monte and placed under the care of the nuns of Santa Brigida. This bank which has just closed was but a side issue of the Central Institute, and its closing in no way affects the Monte Pio. It is the resort of all, and all are equally received, the poor Peon with his treasured Zerapa, or the haughty Don with his family diamonds. The machine works with marvellous precision and the order is simply admirable. The salesroom is generally crowded, and it is no humiliation to have a little transaction at the Monte de Piedad! The dealings are strictly confidential, and every one hies thither when "short," with the same alacrity as we step into a bank in Wall street. Don Pero Terreros' portrait holds an honored place in the building and his name is venerated and respected all through Mexico. If his soul is not pretty safe, it is a sad thing to contemplate, for all the profits of the institution for seventy years went for masses for its repose. The history of this same Count de Regla, is rather an interesting one. He was originally an humble shop-keeper, plain Peter Terreros; a man of limited means but shrewd judgment. About the beginning of the last century, the famous Real del Monte mines, the richest in Mexico, were abandoned, and became the kind of ruin, only possible to mines filled with water; a mass of floating timbers, earth, rubbish and fallen rock. By the mining laws of Mexico, the title to a mine is lost by abandoning or ceasing to work it. It becomes a waif, and may be "denounced" or adopted by any one. Old Peter conceived the idea of draining this abandoned mine, by means of a tunnel through solid rock a distance of a mile and a half. He toiled upon this undertaking twelve long years, sneered and jeered at by the "unbelieving Thomases" who considered him a harmless though industrious crank, striking an occasional vein, with sufficient amount of silver to carry on his enterprise, when just as he completed his task he tapped a bonanza of fabulous riches. He became the Croesus of Mexico, making such displays of his magnificence in wise ways and with much royal generosity, that he was ennobled by the title of Count of Regla. A single Hacienda of his own Michoacan was ninety miles in

length by fifty-one in breadth; sloping down from the temperate plateau, it embraced the product of every clime. When his children were baptized the procession walked on bars of silver. He loaned the king of old Spain a million of dollars, which has never been paid. He also fitted out two ships of the largest size, building them of mahogany and cedar and presented them to the king, with an invitation to his majesty to visit the country, assuring him that his horse should tread on nothing but ingots of silver from Vera Cruz to the capital, and the places where he lodged be lined with the same precious metal. Surely if this regally generous old fellow bought his title, he paid for it. However, it is what the Count did for his people, and not for his king, that holds his memory fresh and green, and were it not for the existence of the Monte Pio these fabulous tales would be buried in oblivion, but this remains the monument upon which his name is stamped indelibly. From the glare and glitter of the jewel-room of the Monte, we step out upon plaza and touch elbows with that green unkempt crowd that we fear until she mends her laws, Mexico will always have with her—the poor. There is no land on earth where the contrasts are as striking, as universal as in Mexico; it is the ever present pall that enshrouds the land; gaunt, patient hunger. And seldom has it been harder or hungrier for the people than just now, when oppression and taxation burdens them; and injustice in high places stirs their gentle hearts to thoughts of revolution. The poor literally work for nothing and board themselves. They sleep in lairs, and eat by the wayside, wherever the hour finds them. During the late resistance to the new stamp act, the shops were all closed for several days, and the poor were unable to buy food. The average wages of the poor is twenty-five cents a day, which does not suggest a large stock in his larder. So when they were unable to buy the necessary frijoles (black beans) and corn for tortillas so dear to the Mexican stomach the problem of the hour becomes a serious one; they gathered in the streets and discussed the situation with scowling faces, but mild voice. The women said "if they were only men they'd burst the doors in," but Mexican mankind knows the definition of the word revolution. The military guard and police patrol were quadrupled, the poor went hungry for a couple of days, then the merchants submitted, "might was right," and the shops were opened. Most writers speak with a satisfied general tone of tortillas and frijoles as though the rest of the world knew as much about them as themselves. For the benefit of those who do not visit this Cactus Republic, I will explain that the tortilla, is a cake made of corn, an invention of Aztec days. The maize is first soaked in weak lye, to dissolve the outer husk, then ground upon a stone called a metate. Kneeling upon the ground one Mexican woman patiently rubs the corn upon the metate with a long, round stone, in the shape of a rolling pin. The fine paste to which her labor reduces it falls into a bowl of ancient appearance. This is then seized upon by another female "workin' creature," who takes a proper portion between her small brown hands and dextrously shapes it into thin cakes the size of a breakfast plate and having the look of a comfortable American buckwheat; this she lays upon the adjoining griddle. Undoubtedly this method of manufacture dates back to scriptural days, when the Savior spoke of, "Two women grinding at the mill," and it will certainly continue on so long as Indian blood flows in Mexican veins. The most familiar scene in Mexico is the tortilla making. Before the door of every hut is the ever present picture, with filth, flowing hair and almost nakedness, as a background. Flowing hair sounds picturesque, but when it is very dirty and suspended above one's dinner, it is not a pretty picture. The cakes are dry and tasteless, and at best "tough buckskin victuals," but the tortilla is the Mexican staff of life, upon which the native leans with loving dependence. An Indian will accomplish a week's journey across the country, bearing a load of 200 pounds upon his back, with no personal comforts, except his ragged sarape for a bed, and forty-two tortillas counted out with precision, as he always denies his shrunken stomach more than two cakes per meal. The frijoles are a kind of black bean, exceedingly sweet and nutritious; these they cook into a stew. Doubling the tortilla into the form of a spoon, they scoop up the one with the other, and then swallow the whole.

The Mission of a Flower.

Who has not realized that there are elements in our being that can not be satisfied with meats and drinks? There is a craving that can only be accounted for by our dual being supplied by the Creator, when "out of the ground made the Lord God to grow every tree that is pleasant to the sight, and good for food;" the satisfying of this craving is a high, imperative, religious duty. Wealth has in all ages felt a want that which could only be satisfied by the odors, the beauties of the blossoms,—to-day perhaps no single influence is so universally spread as the influence of flowers. Every known creed, every form of religious worship, is associated with flowers and floral emblems.

Is it a wonder then that we all recognize their potency for good in one way or another.

At a Sunday school convention we recently heard a superintendent complain: "We have a school and plenty of money; in winter we can keep up a good school, but whenever the green buds and bright flowers come the school is empty. What we want is children. How can we get them?" It is strange how near we can sometimes come to an all-absorbing truth, and yet miss it. We inwardly said to that gentleman, "thou art not far from the truth." Take buds and blooms into the school, make them the teachers and the texts. Their colors will charm, their odors attract, enchant,—their symmetry, diversity, unity—instruct, elevate,—they surely lead to God. Look at the floral adornments of the temple built by Moses under the explicit directions of Jehovah and learn a lesson.

Have not the flower missions carried unthought of pleasures, unmeasured influences for good to the prisons and hospitals, and reformatories of our land, and their power for good is, as yet, unconceived of.

We cut the rosebud or other floral gem, and are rewarded more richly by another. We give it to the poor flowerless denizen of a squalid tenement room and they wish they could have such a pet in a pot to cherish. The desire takes form, and after much effort perhaps, the pot-plant graces the dingy window, and dirt and disorder gradually fade away.

The pot-plant creates the ambitious desire to occupy a house with "ever-so-small" a garden plat. The pleasure of the rented plat encourages the desire for the ownership of the cottage and its little lot. The increasing pleasures then craves the country and its acres, and the cottage homes and healthy yeomanry are made out of the same material that was called into play by the little rose-bud, and its ministrations to the so often buried, trodden down, neglected element that was created within us and provided for by our great Creator, when he gave us "the tree that is pleasant to the eye" in advance of the "good for food."

The power of the flower in our elevation to purity of thought and life is but too little recognized.—Household.

Sprinkle onion beds with hot water to destroy maggots.

The frequent use of the cultivator is a secret in corn culture.

English agricultural writers discourage the use of salt in silos.

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

The ideal ear of corn is one with twelve rows, ten or twelve inches long, uniform in size from the tip and well capped at the tip.

Charles S. Glead, of the law department of the A. T. & S. F. railroad, writes that having tried Lels' Dandelion Tonic, he is satisfied that it is all it pretends to be. It is an unequalled remedy for many of the ills that afflict the people of the west.

Young chicks that are subject to weakness in the legs should receive a small allowance of fine bone meal in their food. Weak legs come from forced growth, high feeding and close confinement, but are not necessarily dangerous.

Hay Fever. I have been a great sufferer from Hay Fever for fifteen years. I read of the many wondrous cures by Ely's Cream Balm and thought I would try once more. In fifteen minutes after one application I was wonderfully helped. Two weeks ago I commenced using it and now I feel entirely cured. It is the greatest discovery ever known or heard of.—DUHAMEL CLARK, Farmer, Lee, Mass. Price 50 cents.

The Young Folks.

The Cat's Soliloquy.

An open cage, some feathers fair,
Two little maidens crying,
And Pussy seated on a chair,
The mournful scene espying.

Tear after tear rolls down each cheek,
Sob after sob arises,
While Puss, as well as she can speak,
Calmly soliloquizes:

"If they would keep a bird in cage,
They should not leave it undone;
For that's the tale in every jail
From Panama to London.

"Their ducks and chicks they pet and feed;
And yet I've often noted,
They eat the very birds, indeed,
To which they're most devoted.

"Then wherefore look so cross and sour?
Why make this sad commotion?
Why should not I a bird devour
For which I've no devotion?"

—Harper's Young People.

IN SIBERIAN WILDS.

Graphic Description by Lieut. Schuetze
of the Natives of the Lena Delta in
Their Winter and Summer
Homes.

The reports of Lieuts. Harber and Schuetze, who went to Siberia to search for Lieut. Chipp's party and bring home the remains of the dead heroes of the Jeannette, have been handed to the secretary of the navy and will be sent to Congress. Lieut. Harber devotes his attention to the details of the search and the incidents of the journey across the Siberian deserts of snow, while Lieut. Schuetze describes the geography of the country, the towns and villages, the habits, customs and manners of life of the people. That portion of Lieut. Schuetze's report which relates particularly to the Lena Delta affords an interesting conclusion to the very graphic letters from him heretofore published.

THE LENA DELTA.

The delta of the river Lena, to which so much attention has been lately directed in connection with the Jeannette expedition, is included in the Shigansk ulus, one of the subdivisions of the Verchoyansk okrug. Formerly the village of Shigansk, about midway between Yakutsk and Bulun, on the Lena, was the most important place in this district, the center of the fur trade and the headquarters of the ispravnik. Now, however, it is nearly abandoned, owing to the scarcity of fur-bearing animals in the vicinity. A priest, however, is still there with his family; and a small number of natives make it their residence during the winter. The ispravnik resides in Verchoyansk, a rambling village near the headwaters of the Yana, consisting mainly of about 40 yurts. In addition to these there is quite a large church, a schoolhouse, a small hospital, a house where the public officials transact their business and the ispravnik's residence. All these are log built, in the Russian style, and with their large brick stoves or ovens and double glass windows are the only comfortable, healthful abodes north of Yakutsk in this section of Siberia. The mail arrives once in three months, but there are besides occasional opportunities for sending letters by the Cossacks, who act as guards to the political exiles sent from the south. The route through the mountains to Yakutsk being rough and full of difficulties, especially for transport trains, clothing, provisions, and, in fact, all necessities of life are scarce and high-priced, with the exception of beef, which here is even cheaper than in Yakutsk. Reindeer are usually plentiful, the prices varying from \$2.50 to \$4 a head. There is a force of about twenty Cossacks stationed here, whose chief duty is in connection with the exiles and in guarding the government property.

The ispravnik travels through his district once a year to collect taxes and to inquire into the condition of the people. (Each male native is taxed about four rubles, or \$2 yearly, in money or furs, for the support of the government and church.) Having sent word of his coming, the head men of the various districts, the golovai and starosters assemble at Bulun, the principal village in the Shigansk ulus, some time during the winter to meet him and transact the public business. During the summer the route between Verchoyansk and Bulun is practically impassable in consequence of the numerous rivers which have to be crossed and the boggy condition of the tundra along the coast. Upon one occasion, it having become necessary in the summer to despatch a messenger on urgent business to Bulun, it took the native who was sent on the duty seventy-two days to perform the travel, which in winter can easily be done in seven or eight.

THE INHABITANTS.

The inhabitants of the delta are Yakut and Tungus. The latter are known in their language as Elven, and, in addition to their own, usually speak the Yakut language. These two races have intermarried to such an extent that it is usually difficult to make

any distinction between those who live in the delta. They, themselves, are included to give the impression that they are all Tungus, though many claiming to be such are unable to speak the language. There are, however, the Tungusi proper, or reindeer men, who live further south, a wandering tribe whose knowledge of Yakutish is limited to a few words necessary in their occasional intercourse with the more powerful, energetic and numerous neighbors, the Yakuti. The latter in pushing northward drove the Tungusi before them, and the ancestors of those who now live in the delta were probably forced to seek subsistence there, having lost their reindeer from one cause or another. Here they settled on account of the fishing grounds, living during the winter in permanent habitations, and compelled in the summer only, when they move about in search of food, to resort to their old custom of wandering.

The Tungusi are, as a rule, the more peaceable, trustful and honest of the two people, though where they live in close contact they have been quick to learn the vices of the Yakut, as the latter originally was the willing pupil of the Russian trader. The inhabitants of Bulun are principally Yakuti, whereas at Kumachurt, 110 versts further north, the Tungusi are in the majority.

The delta is a vast plain of tundra formation, cut up into small islands by the ramifications of the river. There are occasional patches of high land which are called borchia—or mud hills. Besides these, in various parts of the delta one meets curiously shaped hills, usually resembling the Indian mounds in the Mississippi valley, and which are termed bulguniak by the natives. The larger mass of the water flows to the sea through the east and northeast branches, those to the north and west being without exception smaller and very shallow. Moreover, salt water is met close to the mouth of the western arms of the delta, whereas to the east the water far out in Borchia bay is fit to drink. The land in the northwest is much higher than the rest of the delta, and is not traversed by any branches of the river. It contains, however, many lakes of considerable size, which are well stocked with fish. To this part of the delta the nomad Tungusi often came in the early winter with their reindeer, on account of the superior feeding grounds and abundance of fish in the lakes. The southeast arm is probably the only branch navigable for vessels of more than four or five feet draught. Through this the steamer Lena of Nordenskjöld's expedition entered the river after unsuccessfully trying to force a passage through one of the northeastern branches.

The numberless islands composing the delta are of course undergoing constant changes, old ones being cut away by the swift currents and new shoals and islands being in continuous process of formation. The mainland on this part of the coast is mountainous. A peculiarly shaped, large detached rock at the mouth of the Lena, called Stolbov, marks the entrance to the river proper. To the northward and westward of Stolbov, distance about seven miles, there are three hills, on the most northern of which, known as Kugulchia, the tomb of DeLong and his companions was placed. The villages, or winter habitations, in the delta, usually consist of from four to six huts, called Baligans, and are situated at the west, north and southeast mouths of the Lena. Here, in October, November and early part of December, fish of the salmon species are caught in great numbers with horsehair gill nets set under the ice. The catch is largest at the Bulko, a southeast mouth of the river. There are only about 300 inhabitants in the delta, though in winter many natives come from the south and other points along the coast to participate in the fish catch.

VILLAGES OF THE NATIVES.

The villages are, as a rule, deserted by the natives in the spring, when they separate into small parties for the purpose of hunting. They then live in the cone-shaped summer huts (urassa) which are scattered over the delta, and wander from place to place in search of reindeer. The reindeer is generally killed with a spear while in the act of crossing from one island to another. A few of the natives, however, possess miserable flintlock rifles of small calibre, the barrels being made in Yakutsk, and which they use in hunting deer. Wild geese and ducks are killed during the moulting season—June, July and August—and their eggs gathered for food. Fish are scarce in the delta during the summer, but in June and July many are taken in the river proper at Kumachurt, Bulun and further south, the greater part being traded to the Cossacks, who transport them to Yakutsk. Natives may also be met with during the summer months along the coast near Olenek, and on the shores of Borchia bay. Near the mouth of the Olenek there was formerly a settlement of Russian peasants (Christians), but after years of intermarriages with the natives none of pure Russian blood can now be found there. In summer the tundra on this part of the coast is almost impassable, but the wandering Tungus can be found herding his reindeer here, in order to avoid the mosquitoes, which infest the wooded regions in the south. At the same time a diligent search is kept up for the marketable mammoth tusks. He remains here till late in the fall, when he seeks the protection of the forests.

The tree limit on the Lena is on the island marked Tit Arri (tree island) about 90 miles distant from the north coast. The inhabitants to the northward of this are confined to the use of driftwood for fuel and building purposes. As stated, huts are scattered all

over the delta. Fox traps built of driftwood are numerous in the delta and the mountains in the vicinity. They are visited three or four times during the winter. Some of the natives own from 150 to 200 traps each.

Next to these the most noticeable objects in the delta are the numerous graves, or rather coffins, which one meets everywhere travelling in this wilderness. The old ones consist simply of a hollowed out log, in which the body was placed, the rude coffin resting on a couple of supports usually two or three feet in height. Now, however, the dead are placed in coffins made from rough hewn planks which rest on the ground. A Greek cross is erected at the head, and in some instances, a railing, rudely ornamented, is built around the burial plot.

MEANS OF TRAVEL.

The natives do their summer traveling in small, trimly built dug-out canoes. Those they make from logs of drift wood, using an ax and a gouge in working the sides and bottom down to a thickness of one-quarter of an inch. After being properly hollowed out the boat is placed over a fire and stretched by sticks, or compressed by lashings into the required wedge shape. They are extremely sharp forward, the widest part being very near the stern. They are then usually blackened on the outside, and any cracks or other leaks stopped with pitch, which is extracted from driftwood. In the bow a forked stick is placed, in which the iron headed spear used in killing reindeer habitually rests. The little boats, worked with a double bladed paddle, are very swift and are generally large enough to carry two persons comfortably. The women are transported from place to place in large, rudely constructed clinker built boats which they themselves propel with oars resembling a spade in shape. Into these are packed the children, dogs, fish nets and the few household utensils necessary for summer travel in the delta—the men in their canoes forming a sort of escort to the noisy throng in the larger boats.

For winter travel dog sleds are used, the reindeer one occasionally meets at Bulko belonging to the inhabitants farther south, who use them for transporting their fish to Kumachurt and Bulun. The dog sleds are usually about fourteen feet long and twenty inches wide. The runners are birch one-half inch thick and three inches in width, the bed of the sled made of thin boards, resting on cross pieces tenoned and lashed to the middle of four uprights on either side. To these uprights or stanchions the runners are also lashed, the runner receiving a small point or tenon of the stanchion, which is thus kept in place. To the wooden bow at the forward end the line to which the dogs are hitched is fastened.

For long journeys the team is generally thirteen to fifteen dogs, hitched in pairs, with a leader. Whips are not used, the changes of direction, etc., being governed by the leading dog, who is controlled by word of mouth, supplemented occasionally by applications of the brake. For checking the sliding of the sled on smooth ice or for stopping, a brake in the shape of a large club, with a sharp pointed iron shoe, is carried by the driver. The sledge dogs, owing to the scarcity of food (fish), are often in a pitiable condition during the summer, and the natives not infrequently share in their suffering just previous to the beginning of the fishing season, in October, especially when reindeer have been scarce.

WINTER AND SUMMER RESIDENCES.

The winter hut, or baligan, is a structure about sixteen feet square and seven to eight feet in height, covered with mud and sod. The inclined sides of planks rest against a frame supported at each corner by a stout post set into the ground, the roof or covering of this frame being also logs or heavy, roughly hewn planks. Near the small door and generally a little to the right of it the semi-circular chimney, made of sticks covered with mud, rises from the large, square mud fire-place, situated so that the heat is radiated toward the six bunks, which, raised above the wooden or mud floor, are ranged along the sides of the hut, two on each wall, except the front, where the store of firewood is kept. There are usually three windows or square holes in the sides over the bunks, which in summer are closed with fish skins stretched over a frame and in winter with blocks of ice six inches in thickness. The entrance is protected by one or two long tunnel-shaped log structures or storm doors, on either side of which small store-houses for fish are located. Besides these there are usually one or two square log store-houses detached from and near the dwelling house. In winter these huts are almost snowed under, care being taken, however, to keep the snow clear of the ice windows. The most conspicuous objects in a village are the chimneys, which rise two to three feet above the snow-covered roof. It is customary among the natives, in order to avoid the trouble of entering a hut when one wishes to make a short communication to his neighbor, to simply step upon the roof and use the chimney as a speaking-tube. The summer hut, called urassa, is generally cone-shaped, roughly and hurriedly built of driftwood covered with sod. There is a fire-place in the centre, but no chimney, and the smoke finds egress through a hole left at the top of the structure.

FOOD OF THE NATIVES—MARRIAGE LAWS.

The food of these people consists principally of fish, which are either cooked in large copper kettles or eaten raw, both in summer and winter. Reindeer meat is considered a luxury, it being generally hard to obtain, owing to the lack of effective firearms. The geese which they kill during the

moulting time they string up on wooden frames or scaffolding and eat them usually after they have been exposed undrawn to the sun during the entire summer. They obtain brick tea, of which all are very fond, tobacco and horse hair for making and repairing fish nets from the traders who travel among them during the winter. Sometimes they also manage to get a little flour, which, mixed with water, they boil, making a sort of mush of it.

These people conform generally to the marriage laws of the Russian church, but as a rule must purchase their wives from the prospective father-in-law, the price varying according to the worldly possessions of the parents of the bride—from about fifteen to several hundred rubles. The wishes or preferences of the women are seldom, if ever, taken into consideration in this bargain or contract. In lieu of money, however, deerskins, furs, fish or dogs are commonly accepted. The payments are usually made in instalments before marriage, and if at any time the man may weary of his betrothed and regret his bargain, he is at liberty to retract his promises, but, at the same time, he must relinquish all claims to the payments or gifts already made. When all has been paid, nothing remains but to wait for the priest, who usually visits the village once a year and officiates in a small log house, erected for the purpose and ornamented with a few cheap prints of saints to give it the appearance of a chapel.

The natives along the coast are, as a rule, very timid and nervous. They have an indistinct knowledge of the existence of the Tchuckchee in the far east, whom they fear. When the steamer Lena made a trip to Bulun in the summer of 1883, for the purpose of trading for fish, a great many natives took to the woods in dread of her. It is said that when vague rumors of the Russo-Turkish war were repeated to them by the trading Cossacks and Yakuti from the south they were prepared to decamp, lest the Turks, coming by way of the sea, should destroy them all.

PECULIARITIES OF THE PEOPLE.

The natives in the delta depend, as stated, almost entirely on fish for food. The men, as a rule, attend to the fishing only, whereas to the women falls all the labor of dragging driftwood from the river and hauling it to the house, feeding the dogs and keeping the mud chimney in repair, besides her legitimate work of cooking and sewing. Their clothing is made of reindeer skins, but one occasionally sees among the well to do calico skirts and cloth coats obtained from the Yakutsk traders. Large numbers of the natives suffer from sore eyes, and among the old it is not uncommon to find one totally blind. This results from the smoke to which they are at all times exposed in their huts—more especially, however, is it attributable to the suffocating condition of the summer huts where there are no chimneys, and to the use of damp wood in the small pavarnias which serve as resting places for travellers. There is no physician in this district nearer than Verchoyansk. In the spring and summer of 1883 the villages of Bulun and Kumachurt were almost depopulated by smallpox, which had been carried there by travellers from Yakutsk northward along the route leading through Verchoyansk. Their journeys in the winter are usually very short, and only when they have fish to trade do they visit Kumachurt, on the Lena, and upon rare occasions do they go to Bulun. Many of them never have been out of the delta, and when those who live in the north or west wish to visit Bulun they commonly go by the way of Bulko, following thence the road across the mountains to Tass Arril, on the main river. They have very vague ideas of distances, which they reckon by a standard called koess, and which is supposed to be about ten versts. For example, a native will say that with good dogs the distance from the Island of Tass Arril to Kumachurt is four koess, whereas if the animals are in poor condition the length will be more nearly five koess. The term koess is Yakutish, and means primarily an earthenware pot which the Yakuti in the south use for cooking purposes. The application of the name to distance is said to have originated from the belief that if the traveller had not stopped to cook his meal, or had not used his koess, he would have made ten versts (one koess) further on his journey.

ANIMALS IN THE DELTA.

The polar bear is seldom seen in these regions, though a few are said to have been killed near Sagarty, on the north coast, in years gone by. During the summer an occasional seal was observed by the Jeannette search parties along the coast to the eastward and westward of the delta. In the summer the wild reindeer are plentiful in all parts of the delta, and killed by the natives, usually in the fall of the year, when they are making their way south toward the mountains and forests. There are also otarmigan in large numbers all the year round. During the warm months wild flowers—principally forget-me-nots and buttercups—spring up in wild abundance on the tundra everywhere, and in the protected clefts of the rocks and gullies, near Kumachurt, an occasional wild rose may be found.

H. M. Greene, Esq., Superintendent of the Kansas State Asylum for Idiots and Imbecile youth, purchased and used a bottle of Lels' Dandelion Tonic, and says that he received from it the most beneficial effects. He has no hesitancy in recommending it as a tonic and stimulant of first class excellence.

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The letter "d" represents Vol. XXII (1884) on our subscription books. When the number following this letter (d), on the label of your paper, corresponds with the number of the FARMER (which you will find to the left of date line on first page), your subscription expires with that issue of the paper. For instance: If "d 52" appears on the label, your time expires with No. 52 of this volume (1884). Then your paper will be discontinued. You should renew at once.

The Democratic State convention is to meet at Topeka August 19.

TRY IT.—Send in fifty cents for the KANSAS FARMER to December 31 next.

The national Prohibition convention meets at Pittsburg to-day for the nomination of candidates for President and Vice President.

The editor acknowledges receipt of an invitation to attend the Sumner County Fair at Wellington, September 17 to 20. He will try to arrange his affairs so as to be present.

The World's Fair at New Orleans will be one of the most interesting occasions of the time. Kansas people will find the K. C. Ft. S. & G. the most direct route to Memphis on the way.

The Republican convention last week did its work orderly and quickly and without any bitterness of feeling so far as we saw. The Prohibition members were in the proportion of six to one.

A few Prohibitionists met in Topeka last Thursday and selected four delegates at large and one from each Congressional district to attend the national Prohibition convention at Pittsburg, and instructed them to vote forex-Gov. St. John for President.

We publish a list of Kansas fairs this week. Among them, it will be noticed, is the Kansas State Fair at Topeka, September 8 to 13. That is one in which the whole State is directly interested. We hope that our immense productions will be profusely represented at the State Fair this year.

The Coffeyville Journal (Montgomery county) says: Mr. John G. Willey, of near Deerton, a few miles east of Coffeyville, last week threshed 900 bushels of wheat from 24 acres, making an average of 37½ bushels to the acre, machine measure, and says there was enough left under the machine to make it 40 bushels.

Kansas Patents.

The following devices were patented July 15, 1884, by citizens of this State, and were reported for the KANSAS FARMER by J. C. Higdon, solicitor of patents and attorney for patentees, Insurance Building, Kansas City, Mo.: Automatic power windlass—R. G. Cheney, Atchison; machine for making fences—B. L. Fletcher, Wichita; alarm attachment for baling presses—J. L. Hall, Colony; pipe coupling—S. Kimble, Manhattan; bran duster—J. W. Wilson, Brookville.

The State Campaign.

Our readers, doubtless, will all want to keep posted on political affairs during the campaign. We can help them only in a general way, by giving leading points.

The Republican State convention was held in Topeka last week and named the following ticket: For Chief Justice, Albert H. Horton, present incumbent; Associate Justice, W. A. Johnston, present Attorney General; Governor, Col. John A. Martin, of Atchison; Lieutenant Governor, A. P. Riddle, of Crawford county; Secretary of State, Dr. E. B. Allen, of Sedgwick county; Treasurer and Auditor, present officers, Howe and McCabe; Attorney General, S. B. Bradford, of Osage county; Superintendent of Public Instruction, J. H. Lawhead, of Bourbon county.

The first and second resolutions of the platform refer to party history, and endorse the nomination of Blaine and Logan. The remainder of the platform is as follows:

Resolved, That the National Republican platform meets with our hearty and enthusiastic endorsement as the best statement of living principles ever presented to the American people. Its firm position in adhering to the protection of American industry, in demanding the enforcement of the inalienable rights of man, in opposing land monopoly and corporate monopoly, meets with our cordial approval.

Resolved, That prohibition has by a vote of the people, without distinction of party, been adopted as the organic law of this State.

Resolved, That we favor a faithful and honest enforcement of the constitutional amendment that the full effects of prohibition may be realized, that the declared will of the people may be respected, and that the majesty of the law may be vindicated.

Resolved, That, as under the constitution and laws of the State, all errors and irregularities of the inferior courts may be corrected by proper proceedings in the Supreme court—a tribunal now composed of members of both of the great political parties of the State—the recent action of Governor Glick in exercising the pardoning power to release guilty persons from the just penalties of law-breaking, solely upon the grounds of alleged wrongs and irregularities existing at the trials, when they have not sought a review of their cases in the Supreme court, is an unwarranted usurpation by the Chief Executive of the judicial power of the State, and is an attempt to destroy the confidence of the people in the courts, thereby exciting lawlessness and disobedience to public authority, and such conduct on the part of the Governor—under solemn oath to obey the constitution and enforce the law—merits and deserves the condemnation of all good citizens, irrespective of party affiliations, and regardless of personal views as to the policy of prohibition.

Corporations derive all their powers from the State and are responsible to the State for the manner in which they exercise such powers.

We demand that the present railroad law be so strengthened and amended as to remove its cumbersome features and to unequivocally vest in the board of Railroad Commissioners all necessary power to accomplish the ends sought to be attained, and to compel a compliance with the reasonable orders of the board, made with reference to those matters as to which, under the provisions of said law, such board has but an advisory jurisdiction.

The railway companies of the State are entitled to fair and reasonable remuneration for services performed by them, but they are not authorized and should not be permitted to establish rates for the purpose of obtaining revenue to be applied in payment of dividends on illegal and excessive issues of stock or interest upon fictitious indebtedness, and we pledge ourselves to support such laws and measures as may be necessary to prevent and discontinue such practices.

Resolved, That the Republican party of Kansas, as ever in its history, maintains the equality of all men before the law, without regard to color or previous condition of servitude, and will adhere in the future to that policy which in the past in this State placed the civil rights of all men on a plane where no adverse decision of a court, high or low, could effect them.

Resolved, That the Republican party of Kansas unites its voice with the nation at large in commendation of the wise, pure and eminently satisfactory administration of President Chester A. Arthur, and that the profoundest gratitude of the Republicans of the State be and is hereby tendered to our Chief Magistrate for his brave and fearless veto of the disgraceful Democratic measure known as the "Fitz John Porter bill," thus rescuing the whole country from deep humiliation and shame, which would have followed its passage.

During the session of the late Republican convention in this city, the FARM-

ER folks received a good many friendly calls from farmers residing in different parts of the State. We thank them for their courtesy. It pleases and encourages us to have such attentions from our patrons, and we hope the habit will grow.

Mr. Blaine's Policy.

As we say elsewhere, our readers necessarily are much interested in what the national parties are doing and what they propose to do. We will publish, from time to time, such facts as will convey this kind of information.

Mr. Blaine's letter of acceptance was given to the press last Friday. It is an able, clear, comprehensive document. This all will concede, no matter what they believe as to the soundness of his opinions.

Our readers, we suppose, are more interested in what he says on the tariff, civil service and labor than on any other topics, and we extract from his letter enough to show what his opinions are on those important matters, as follows:

LABOR ENTITLED TO FAIR REWARD.

Compared with our foreign commerce these domestic exchanges are inconceivably great in amount, requiring merely as one instrumentality as large a mileage of railway as exists to-day in all the other nations of the world combined. These internal exchanges are estimated by the statistical bureau of the Treasury Department to be annually twenty times as great in amount as our foreign commerce. It is into this vast field of home trade, at once the creation and the heritage of the American people, that foreign nations are striving by every device to enter. It is into this field that the opponents of our present revenue system would freely admit the countries of Europe; countries into whose internal trade we could not reciprocally enter; countries to which we should be surrendering every advantage of trade, from which we should be gaining nothing in return. The effect upon the mechanics and laborers of a policy of this kind would be disastrous to the mechanics and workingmen of the United States. Wages are unjustly reduced when an industrious man is not able by his earnings to live in comfort, educate his children and lay by a sufficient amount for the necessities of age. The reduction of wages, inevitably consequent upon throwing our home market open to the world, would deprive them of the power to do this. This would prove a great calamity to our country; it would produce a conflict between the poor and rich and in the sorrowful degradation of labor would plant the seeds of public danger. The Republican party has steadily aimed to maintain just relations between labor and capital, guarding with care the rights of each. A conflict between the two has always been in the past and will lead in the future to the injury of both.

Labor is indispensable to the creation and profitable use of capital, and capital increases the efficiency and value of labor. Whoever arrays the one against the other is an enemy of both. That policy is wisest and best which harmonizes the two on the basis of absolute justice. The Republican party has protected the free labor of America so that its compensation is larger than is realized in any other country. It has guarded our people against the unfair competition of contract labor from China, and may be called upon to prohibit a similar evil from Europe. It is obviously unfair to permit capitalists to make their contracts for cheap labor in foreign countries to the hurt and disparagement of the labor of American citizens. Such a policy, like that which would leave the time and other condi-

tions of home labor exclusively in the control of the employer, is injurious to all parties, not the least so to the unhappy persons who are made subjects of the contract. * * *

The total exports from the United States from the Declaration of Independence in 1776 to the day of Lincoln's election in 1860, added to all that had previously been exported from the American colonies from their original settlement, amounted to less than \$9,000,000,000; on the other hand our exports from 1860 to the close of the last fiscal year exceeded \$12,000,000,000, the whole of it being the product of American labor. Evidently a protective tariff has not injured our export trade, when under its influence we exported in twenty-four years forty per cent. more than the total amount that had been exported in the entire previous history of American commerce. All the details when analyzed correspond with this gigantic result. The commercial cities of the Union never had such growth as they have enjoyed since 1860. Our chief emporium, the City of New York, with its dependencies, has within that period doubled her population and increased her wealth five fold; during the same period the imports and exports which have entered and left her harbor are more than double in bulk and value the whole amount exported by her between the settlement of the first Dutch colony on the Island of Manhattan and the outbreak of the civil war in 1860.

PROTECTION TO AMERICAN INDUSTRY.

* * * The Republican party is not contending for the permanency of any particular statute. The issue between the two parties does not have reference to a specific law. It is far broader and far deeper; it involves a principle of wide application and beneficent influence against a theory which we believe to be unsound in conception and inevitably hurtful in practice. In the many tariff revisions which have been necessary for the past twenty-three years, or which may hereafter become necessary, the Republican party has maintained and will maintain the policy of protection to American industry, while our opponents insist upon a revision which practically destroys that policy. * * * After 1860 the business of the country was encouraged and developed by a protective tariff. At the end of twenty years the total property of the United States as returned by the census of 1880 amounted to the enormous aggregate of \$44,000,000,000. This great result was attained notwithstanding the fact that countless millions had in the interval been wasted in the progress of a bloody war. It thus appears that while our population between 1860 and 1880 increased 60 per cent. the aggregate property of the country increased 214 per cent., showing a vastly enhanced wealth per capita among the people. Thirty thousand million of dollars had been added during these twenty years to the permanent wealth of the nation. These results are regarded by the older nations of the world as phenomenal—that our country should surmount the peril and the costs of a gigantic war and for an entire period of twenty years make an average gain to its wealth of \$125 000,000 per month, surpasses the experience of all other nations, ancient or modern. * * * The agricultural interest is by far the largest in the nation and is entitled in every adjustment of revenue laws to the first consideration. Any policy hostile to the fullest development of agriculture in the United States must be abandoned. Realizing this fact the opponents of the present system of revenue have labored very earnestly to persuade the farmers of the United States that they are robbed by a protective tariff, and the effort is thus made to

consolidate their vast influence in favor of free trade. But the farmers of America are intelligent and cannot be misled by sophistry when conclusive facts are before them. They see plainly that during the past twenty-four years wealth has not been acquired in one section, or by one interest, at the expense of another section, or another interest. They all see that the agricultural States have made even more rapid progress than the manufacturing States. The farmers see that in 1860 Massachusetts and Illinois had about the same wealth, between eight and nine hundred million dollars each, and that in 1880 Massachusetts had advanced to \$2,600,000,000, while Illinois had advanced to \$3,200,000,000. They see that New Jersey and Iowa were just equal in population in 1860, and that in twenty years the wealth of New Jersey was increased by the sum of \$800,000,000, while the wealth of Iowa was increased by the sum of \$1,500,000,000. They see that nine leading agricultural States of the West have grown so rapidly in prosperity that the aggregate addition to their wealth since 1860 is almost as great as the wealth of the entire country in that year. They see the South, which is almost exclusively agricultural, has shared in the general prosperity and that having recovered from the loss and devastation of war has gained so rapidly that its total wealth is at least the double of that which it possessed in 1860, exclusive of slaves. In these extraordinary developments the farmers see the helpful impulse of a home market and they see that the financial and revenue system enacted since the Republican party has come into power has established and constantly expanded the home market. They see that even in the case of wheat, which is our chief cereal for export, they have sold in the average of the years since the close of the war three bushels at home to one they have sold abroad, and that in the case of corn, the only other cereal which we export to any extent, one hundred bushels have been used at home to three and a half bushels exported. In some years the disparity has been so great that for every peck of corn exported one hundred bushels have been consumed in the home market. The farmers see that in the increasing competition from the grain fields of Russia and from the distant plains of India the growth of the home market becomes daily of greater concern to them and that its impairment would depreciate the value of every acre of tillable land in the Union.

THE CIVIL SERVICE.

The general character of the civil service of the United States under all administrations has been honorable in the one supreme test—the collection and disbursement of the revenue. The record of fidelity has never been surpassed in any nation. With the almost fabulous sums which were received and paid during the late war scrupulous integrity was the prevailing rule. Indeed, throughout that trying period, it can be said to the honor of the American name that unfaithfulness and dishonesty among civil officers were as rare as misconduct and cowardice on the field of battle. The growth of the country has continually and necessarily enlarged the civil service until it now includes a vast body of officers. Rules and methods of appointment which prevailed when the numbers were smaller have been found insufficient and impracticable and earnest efforts have been made to separate the great mass of ministerial officers from partisan influence and personal control. Impartiality in the mode of appointment, to be based on qualification, and security of tenure, to be based on the faithful discharge of duty, are the two ends to be accom-

plished. The public business will be aided by separating the legislative branch of the government from all control of appointment and the Executive Department will be relieved by subjecting appointments to fixed rules and thus removing from them the caprice of favoritism. But there should be a rigid observance of the law which gives in all cases of equal competency the preference to the soldiers who risked their lives in the defence of the Union.

Preparation for Forest Planting.

In another part of the paper this week will be found an article on Forest Tree Planting. It is quite as important to prepare well for planting as it is to plant after preparation is made; for if we neglect the work in the beginning we will not succeed in the end.

The "lay of the land" is not as important, we believe, as careful preparation of the soil; but there is something in topography. A northern or eastern slope is better in Kansas for both forest and fruit trees, and the ground, no matter what the exposure is, ought to be well drained naturally. This ought to be the first consideration in selecting a site for a grove of forest trees. The ground may be uneven and yet not well drained in all parts. A gradual and regular slope is best. If the place selected has not a good natural drainage, the defect must be remedied by artificial means. This is of first importance and ought to be attended to before anything else. It is not absolutely necessary to underdrain, though that is the best way, but there needs to be one or more conduits to carry off all waste water, and the bottom of the drains or ditches ought to be lower—(deeper) than the plowing of the plat is done. We have known trees and vines to be literally drowned in flat undrained ground, and we now have grapevines refusing to grow because the water—underground water cannot escape as readily as it ought to do. Every farmer knows how a little depressed spot or basin in his wheat or corn-field affects the crop. It is because surplus water cannot escape. It affects trees the same way.

The ground ought to be plowed very deep and thoroughly. If it is possible to subsoil, all the better; but, as we have often said, the lower soil need not be brought on top. It is better left where nature put it, but it ought to be broken as fine as possible. If it is not convenient or possible to subsoil, then run the plow down ten inches if that depth can be reached. If it require three or four horses, put them on. It is better to break up half an acre a day with four horses and do it well, than to plow two acres in the same time with two horses, and not do it well. Any ingenious farmer can devise a way to get deep into the ground if his fallow plow will not go the required depth. We have known farmers to follow the "turning plow" with a narrow shovel, cultivator teeth, or bull-tongue. It may be necessary to cross-plow in order to effect a good breaking up of the subsoil. Manage some way to get deep and perfect work. There must be no "bobbing" out-and-in of the plow. Cut and break all of the ground and to an even, regular depth. The under soil may be simply broken, loosened in pieces. This is well, even though it be not all broken fine. The great thing is to get the subsoil loosened to get some benefit of atmospheric influences and furnish a good root bed.

The best time to do this work is in the autumn months. A crop of rye may be grown from it, and that followed by turnips or late potatoes. It may be suffered to lie idle during the fall and winter, in which case it will need working some to destroy weed growth. Fol-

low in the spring with potatoes, cabbage, or some root crop that requires careful cultivation. Keep the ground clean and mellow all summer, and the second spring it is fit for reception of the trees.

If the land is not fertile it ought to be covered all over with well-rotted stable manure, leaf-mold, barn-yard scrapings, etc., and this should be plowed under as soon as possible after it is spread. A crop of green rye may be plowed under and left to rot. That is a good manure, but it must be well rotted before any trees are set in the soil. And in the meantime the ground must be kept well worked and clean. It is important to keep weeds down. They are wonderful absorbents of soil life.

These ideas, the reader will observe, are based upon the theory of one or more years preparation. Where the forest fever comes on suddenly and a man cannot wait contentedly, he may plow and plant at once. Clean the ground off well of trash of all kinds by burning or any other method most convenient. But do not neglect it. There ought not to be any such stuff in the way of the young roots. It dries out the soil, and the trees are stunted or they die outright. All such matter prevents that compacting of the soil which is necessary to the growth and health of young trees. The plowing and draining is quite as important in this case as where the ground was prepared a year or two before. Harrow thoroughly and roll, so as to pulverize and pack the soil.

When planting time comes, mark off the rows with a plow, one way at least. If the trees are plants just coming from the seed-bed, the furrow drawn to set them in must be shallow in proportion to size of plants and roots. In case of walnut sprouts, three inches is deep enough; but for plants four to six feet high, let the furrow be six inches deep, and still deeper for larger and older trees.

In case of walnut or other nut sprouts, set every one carefully by hand; in case of other kinds, let a level space be made with a hoe where the tree is to stand, and spread the roots carefully, putting nothing but the finest soil on them.

As to time and method of planting in general, we will have something to say in an early issue.

Gossip About Stock.

Some four thousand heifers were recently sent to New Mexico on a contract by D. R. Fant.

The Carney Brothers are fitting up a ranch on Smoky Hill river, and they are buying up bulls and heifers to stock it.

Reports from different parts of the State concur in the general statement that Kansas stock of all kinds is free from disease and is doing well.

R. T. McCulley & Bro., Lee's Summit, Mo., sheep breeders, will be pleased to send their catalogue to any subscriber of the KANSAS FARMER that will ask for it.

Some eight thousand head of horses have been on the Dodge City market this year and most of them brought prices satisfactory to the sellers.

Hon. S. S. Benedict, U. S. Indian Inspector, is taking testimony concerning recent disturbances in Indian Territory relating to stock interests.

A flock, consisting of about seven hundred Mereno sheep are for sale. For information address or apply to J. W. Peck, Brookville, Kas., or to A. T. Palmer, Wamego, Kas.

Phallas, the trotting stallion, son of Dictator has beaten Smuggler's record. He made a mile, the 15th inst. at Chicago, in 2:13 $\frac{1}{4}$, beating Smuggler 2 seconds. His mark was 2:15 $\frac{1}{4}$.

The KANSAS FARMER will be sent to any address the remainder of this year for fifty cents.

THE MARKETS.

By Telegraph, July 21, 1884.

STOCK MARKETS.

Kansas City.

The Live Stock Indicator Reports:

CATTLE Receipts to-day 1,666 head. The market to-day was very weak and unsettled and trading limited. Advices from eastern markets were of a discouraging character and shippers were not inclined to make purchases. Sales ranged 3 50a 75c.

HOGS Receipts to-day 4,668 head. The market to-day was steady for light, but weak and 5c lower for heavy and mixed lots. Extreme range of sales 4 95a 30c, bulk at 5 10a 5c.

Chicago.

The Drovers' Journal reports:

HOGS Receipts 17,000, shipments 8,000. Market opened steady, closing 5a 10c lower. Rough packing 4 90a 30c, packing and shipping 5 30a 65c, light 4 95a 70c, skips 3 00a 4 75c.

CATTLE Receipts 9,500, shipments 2,300. Exports 6 40a 65c, good to choice shipping 5 90a 6 40c, common to medium 4 60a 5 30c, grass fed Texas 15c lower at 3 00a 4 60c.

SHEEP Receipts 500, shipments none. Market steady. Interior to fair 2 25a 3 00c, medium to good 3 00a 3 50c, choice to extra 3 75a 4 25c, Texas sheep 2 50a 3 75c.

The Journal's Liverpool cable says: Cattle dull, 1c lower; best steers 14 $\frac{1}{2}$ c.

St. Louis.

CATTLE Receipts 3,400, shipments 1,700. Shipping natives weak, tending downward. Texas steady. Exports 6 30a 60c, good to choice shipping 5 90a 25c, common to medium 5 00a 75c, Texas 3 50a 4 80c.

SHEEP Receipts 1,100, shipments none. Market slow and weak. Inferior to fair 2 25a 3 00c, medium to good 3 25a 3 75c, choice to extra 3 85a 4 40c, good to choice lambs 4 00a 5 00c.

New York.

CATTLE Receipts 6,000. Market very dull at 15a 30c lower, no clearance. Native steers 5 50a 7 10c, Texas cattle 4 40a 4 95c, mainly 5 70a 6 72c, natives, 4 40a 6 7 $\frac{1}{2}$ c Texas.

SHEEP Receipts 14,000. Poor to prime sheep 3 00a 5 50c, common to good lambs 5 50a 6 50c.

HOGS Receipts 7,000. Nominally steady at 5 70a 6 20c.

PRODUCE MARKETS.

New York.

WHEAT Cash, firm. Options opened lower, advanced and closed easy. Receipts 280,000 bus, exports 128,000. No. 2 August sales 720,000 bus at 98 $\frac{3}{4}$ a 99 $\frac{1}{4}$ c, October sales 1,464,000 bus at 1 00a 1 01c.

CORN Cash, shade better. Options opened lower, closing heavy. Receipts 51,000 bus, exports 135,000. No. 2 white 74 $\frac{1}{2}$ c.

St. Louis.

WHEAT Cash 84 $\frac{1}{2}$ a 85 $\frac{1}{2}$ c.

CORN Cash 47 $\frac{1}{2}$ a 48c.

OATS Dull and lower, 3 1a 3 $\frac{1}{4}$ c bid cash.

RYE Slow, 57a 58c bid.

BARLEY No market.

Chicago.

WHEAT 82 $\frac{3}{4}$ a 83 $\frac{3}{4}$ c.

CORN Cash 53 $\frac{1}{2}$ a 54 $\frac{1}{2}$ c.

OATS Cash 29 $\frac{1}{2}$ c.

RYE Firm at 62 $\frac{1}{2}$ c.

BARLEY Easier at 58 $\frac{1}{2}$ a 60c.

FLAXSEED Quiet at 1 48c.

Kansas City.

Price Current Reports:

WHEAT Received into elevators the past 48 hours 14,944 bus, withdrawn 14,413, in store 160,863. There was an unusual demand for the under grades of wheat.

No. 3 Red Winter, cash 5 cars at 65c. July 64 $\frac{1}{2}$ c bid, no offerings.

No. 2 Red Winter, cash 71 $\frac{1}{2}$ c bid, 71 $\frac{1}{2}$ c asked; July 71 $\frac{1}{2}$ c bid, 72c asked. Aug. 5 cars at 71 $\frac{1}{2}$ c. Sept. 5 cars at 72 $\frac{1}{2}$ c.

CORN Received into elevators the past 48 hours 12,439 bus, withdrawn 14,501, in store 84,594. Excepting very small sales of Mixed No. 2 and White Mixed immediate delivery on shipping account the market was nominal.

No. 2 Mixed, cash 2 cars at 42c.

OATS No. 2 cash, nothing sold.

RYE No. 2 cash no bids nor offerings. July 45c bid, no offerings.

CASTOR BEANS Quoted at 1 60a 1 65c per bus. FLAXSEED We quote at 1 38a 1 20c per bus, upon the basis of pure.

BUTTER The receipts of storepacked goods are uniformly of bad quality and go to the packers at 5a 6c. Dairy is scarce and of poor quality in the main. Creamery is better sale, although not active, with values firm.

We quote packed: Creamery, fancy..... 17a 18c Creamery, choice..... 15a 16c Choice dairy..... 13a 14c Fair to good dairy..... 10a 12c

EGGS There were large accumulations carried over Sunday and to-day's receipts are liberal, making the supply far in excess of the demand. Moreover the quality is very poor, there being many bad eggs to the case and more stale ones. We quote weak at 10c.

APPLES We quote consignments of choice southern Red June 3 1a 10c per $\frac{1}{4}$ bus box, Red As trachan 3 1a 10c Earl, Harvest, 25a 35c, common unsalable. Consignments of Missouri and Kansas choice 2 00a 2 50c per bbl, common to good 1 00a 1 50c. Home grown from wagons 50a 1 00c per bus.

NEW POTATOES We quote consignments of bbl 1 00a 1 25c, home grown 50a 60c per bus.

The Poultry Yard.

Health and Disease of Poultry.

Here are some good things from the *American Poultry Yard*:

Humanity should be manifested in our treatment of domestic animals. The beasts of the field and the birds of the air show no pity, only viewings suffering with a stare, and going away without having a chord of sympathy touched. Man can pity the galled horse, because he has reason and feeling, and he is also stirred to administer remedies to a sick animal by self-interest. When we write on poultry diseases we should also treat of their causes and the best methods of prevention, for the reason that the methods of prevention may save not only the birds but very much trouble and regret on the part of the owner. We believe that the sorrow which a person feels at the loss of a valuable bird, a pet, is proportionately much above the measure of regret felt at the loss of larger animals. Let not a critic find fault and call this a small matter. The merciful man will be merciful to his birds.

There is no use in saying a word to the man who asserts that "fowls are not worth doctoring." Common dunghill fowls are not valued highly; hence their ailments are not much noticed. But the improved pure-bred poultry has a high value, and disorders are noticed and efforts made for a cure, and this fact undoubtedly gives rise to the impression that pure-bred poultry are more liable to disease than are mongrels. The most serious troubles are undoubtedly those due to roup, cholera, and vermin, two of which (roup and vermin) are multiform in their symptoms. It will be found very necessary, however, for the one who is to treat these diseases to know something of the rest.

Most of the diseases of poultry are preventable, and he who feeds, houses, and cares for his flock properly will have little or no trouble compared with the one who takes no pains in these particulars. Hence the subject of hygiene is all-important.

A coop twelve feet square affords sufficient space for a flock of twenty-five, and a run of an acre is large enough for 200. It must not be imagined, however, that for instance ten times this amount of space is required for ten times this amount of birds. The poisonous air and the exhalations from the bodies and the evacuations of a very great number of fowls close together cannot be combated by any influence. Sound policy, therefore, dictates the separation of your flock, if large, into divisions, each kept at some distance from the other.

Nothing can be much more fatal to the success of the breeder than the violation of this rule against overcrowding. The bad air forms a fit soil for the development of the germs of disease, while at the same time the constitution of the fowl is so undermined as to be unable to resist its assaults. It is in crowded hospitals and ships that malignant epidemics, such as typhus, malignant measles, and the like, make their appearance. This is quite as much the case with fowls as with men. Their blood circulates rapidly, and therefore needs all the more rapid aeration.

Closely connected with the subject of space is that of ventilation. A large fowl house imperfectly ventilated is as bad as a small and airy one. See to it that there are in your poultry house no corners where fetid vapors can lurk out of the reach of the free wind. We can not indeed see the poisonous particles in the atmosphere, but they are there, and will as assuredly do their work as if they could be seen and handled. A fowl

house should not, however, be exposed to too much or too sudden cold. Fowls will catch cold in a draft as readily as human beings, especially at night. On the other hand, fowls do not need a very hot place, unless the purpose be to stimulate the laying organs beyond what is natural.

Strict cleanliness about the coop and houses is another necessity, if epidemic diseases are to be avoided. And something more is meant now than the removal of the droppings. These, bad as they are if allowed to accumulate, are by no means the worst enemies to be encountered in a filthy fowl-house. Worse than these are the unseen deposits on the walls, and also the vermin, lice, red mites, etc., that infest all badly-kept coops and suck the juices out of both the older and the younger fowls.

The droppings should be removed. Dry earth, such as the dust collected in the highway, may be spread on the floor to catch and disinfect them, and there is nothing better than this. Muck, well dried, and powdered gypsum or land plaster are excellent for this purpose, as is coal ashes; and either of these substances thus used becomes a valuable manure. The floor should be frequently spaded up, and even carried off and fresh soil put in its place; the gardener will readily understand how to economize that removed.

Especially measures should be taken to counteract the invisible dirt—namely, the organic matter exhaled from the fowls' lungs and bodies, which settles upon the walls, partitions, nests, roosts, etc. Whitewash must be frequently applied. Carbolic acid, a fluid ounce to a gallon of water, should be freely thrown about all parts of the structure. And this may also be left to evaporate from the vessel containing it, or from old cloths or blankets with it, into the air of the poultry house, taking good care that the fowls do not eat it, if it be left there in bulk. Hanging up by the neck an open bottle full of it is an excellent method.

Hospital wards are purified in two ways—by exposing them to extreme cold or to a tremendous heat. Probably the partial immunity from cholera, etc., of poultry houses in the North is in part due to the bitter cold of some winter days. The practical deduction now is: if the weather becomes extremely cold remove your fowls, if possible, throw the whole hennery open, and let it have a good, thorough freeze; or, if your arrangements allow of it, put in a stove occasionally and heat it as hot as you can get it. It is not probable, however, that this will do much good, unless you can get it up to 150 deg. Fah., or something of the sort. Boiling hot water thrown on in profuse quantities would be useful.

Fumigation is very useful in protecting against both the germs of disease and lice. The smoke of sulphur made by putting a piece of red-hot iron into a kettle containing it is far better than common smoke. Let it remain shut up in the house several hours. Resin is sometimes added to the sulphur. Tar or gas tar is less good, but does very well; shavings wet with carbolic acid, if burned in the hennery, will send out abundant fumes. If lice or red mites be the pest aimed at, remove also all the movable parts of the hen house, such as the hay in the nests, perches, and so on, and burn the litter and char the woodwork. If there has been an epidemic of cholera or roup, and the fancier can afford it, burn the whole hen house, and if possible seek another locality. Movable poultry houses, as recommended in *Poultry Architecture*, are well worth the cost. An excellent plan is to smear the perches with soap grease and scorch

them with a lighted torch. That this needs caution goes without saying. Slaked lime may be put in the corners. A good wash is made with potash, one pound to the quart of hot water, followed up with a free application of kerosene. Fumigation can be conveniently carried on by the use of wire baskets or grates. Whitewash for the interior is the neatest and best thing for all poultry house woodwork.

The house is not the only collecting place of poisonous exhalations. The runs should also be looked to, and the roosting places, when out of doors, and all places where fowls collect. Change the runs, if possible. For this purpose movable fences are useful. At all events, spade or plow up frequently. Earth is a most powerful absorbent of all such exhalations.

The Care of Young Ducks.

An experienced poultry breeder says that young ducks require much the same care as chickens, but are more tender. In a day or two feed hard boiled eggs with bread crumbs, and afterward scraps from the table, with bread made of coarse flour and johnnycake. I have found the extra trouble of baking bread and corn cake pays well in the good start it gives the young birds. The old adage, "Well begun is half done," is true in poultry raising as in much other business. The bread is made with yeast sponge, to which some "drippings" or "shortening" of beef or pork is added, to make it tender and more nutritious. The corn bread is made with buttermilk as in old-fashioned johnnycake. About eight teacups of Indian meal, one cup of "shortening," half a teaspoon of salt, two teaspoons (or enough to make sweet) of saleratus, buttermilk sufficient to make a batter easily poured into the dripper. Bake half an hour in a good oven. Never forget the "little salt" in preparing food for young poultry. It assists the growth of the feathers, and helps ward off the gapes. If buttermilk cannot be obtained, wet up with milk or water, and use baking powder instead of saleratus. Sometimes, for a change, make a shortcake of coarse flour. I do not intend to intimate that fine flour will hurt any kind of poultry, but it is better economy to use the cheaper grades.

If you are not in the milk business, or are sending to a creamery, the skimmed milk makes the best food for young ducks, and may be fed from the third day—but do not give it to them except in curd. By no means let them wade into anything that will wet and make sticky the fine down. A shallow dish of water for drinking is sufficient. Ducks are hearty eaters, and will thrive in exact proportion to the quality and quantity of food. If near a butcher you can obtain the "lights" of beef, veal or mutton for a trifle. They should be used only when fresh killed. Wash and cut each lung in three or four pieces, and put over the fire in cold water, and boil until very tender. Season with a little salt and cayenne or black pepper. The meat will chop easily and may be kept several days in a cool place. To the water in which it was boiled add sufficient meal to make a hasty pudding and cook for half an hour. Boiled or scalded wheat or cracked corn may be added in small quantities to their food after the ducklings are two weeks old, and in four or five weeks they will be strong enough to eat almost anything.

They should be fed three times a day, and even oftener for the first week, unless some food can be left for them to pick when hungry. Give them always and all the time all they will eat, if you wish to see them grow fast.

For a few days they should not be exposed to the sun, if it is at all hot, as

they are easily sunstruck. Neither should they be allowed to go in the wet grass, or to be out in the slightest rain, as nothing will kill a young duck quicker than a good wetting. For four or five weeks it is safer to keep them under shelter when it rains. When in confinement, plenty of green food, as grass, clover, onions or lettuce is necessary.

If the eggs have been hatched under a hen, the heads of the young birds should be greased with lard, in which is a very small portion of kerosene. The duck does not make a good mother as she is so fond of swimming she will leave her nest too long, and allow the eggs to become cold, and she cannot see why the water in which she so delights is not good for her little ones, and will take them as soon as hatched to the coldest spring, where most of them will die from chill. If necessary to set a duck, she should be confined to a small space with food and water convenient. On coming off she should be cooped for two or three weeks, and only allowed to roam in the middle of the day, and in fair weather.



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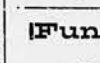
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The Veterinarian.

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

DEFECTIVE EYES.—Have a mare that is likely to lose her sight from pink-eye or distemper. Would it be advisable to breed from her? [If the trouble has been brought on by disease or injury there would be no bad result from that, but if from ophthalmia or any hereditary defect, we would not advise breeding her, as it is likely to be transmitted to her offspring.]

ABNORMAL GROWTH.—In nostril of horse, something like a polypus; interferes with his breathing; it has grown down within two inches of the end of his nose; is rather a hard substance. I have been washing it with strong copers water, which eats it away for a time, but it soon grows out again. [You require the services of an experienced vet., as nothing but the knife will cure it.]

ASCITES.—Mare that has a swelling from the udder to the breast; has left a bunch on inside of each thigh; was told by a veterinary surgeon to put a rowel in the breast, but it has done no good. [Keep the rowels from the mare; you will cause fever and dry up the milk of the mare, and starve your colt. Rub the part with hamamelis 1 pint, cold spring water 1 quart; rub well three times a day.]

INDIGESTION.—Bull that refuses his feed, accompanied with a cough and running at the nose; is weak, and his bowels are more loose than they ought to be. [The bull must have been exposed to cold draughts, or been lying in a cold, wet stall, as the description indicates. Take tinct. of nux vomica 2 oz., water 6 oz.; mix and give 1 teaspoonful three times a day; feed scalded oats and bran in small quantities, with cut grass.]

COUGH IN COW.—Have a cow which has had a cough for nearly a year, and seems to be getting worse. I notice that she is short of breath at times, and can hear her breathing at quite a distance. Is her milk fit to use, or will her beef be good if fattened? [It is a very serious matter if the animal has consumption, as she then would be incurable, and as the disease is contagious she should have no intercourse with other stock. It is my opinion that her products or flesh would be unfit for human food. As I cannot see and examine her I desire a more elaborate description before giving an opinion.]

COUGH IN HORSE.—My horse caught a heavy cold about the 1st of last November, causing what I thought was quinsy, judging from the lumps under his jaw and neck. I blistered it until it broke, and then poulticed. He got much better, but his cough did not leave him, and now it is worse than ever: at times he is almost strangled. In the stable he breathes as hard as if he had been run a mile under the whip; his cough is very tight; he coughs almost constantly; eats well and feels quite well, but is not fit to work hard. I feed him cut hay with ground feed on it (rye, corn and oats); he is ten years old, and sound otherwise. [I think the case is too chronic to yield to treatment, as the mucous membranes of the throat and sinuses of the head have thickened. You should write here while the horse has the disease, not when the disease has the horse. You can try for a time at light expense, the following: Sulphate of copper, 1 oz.; carbolic acid, 2 dr., and hot water, 1 qt.; mix. Give the following ball once in four days: Powdered barbadose aloes, 1 oz.; powdered nitrate of potassium,

2 oz.; powdered gentian, 1 oz., and molasses sufficient to make into 3 lbs.]

SKIN POISONING IN COLTS.—I have two colts terribly afflicted with St. John's wort, one on the nose, and both on three of their feet (which are white), and in fact on several places on their bodies. I have been washing the afflicted places with carbolic soap, and also using diluted carbolic acid, but cannot see any improvement. Two weeks ago they were in good flesh, but now are poor. They got the poison in the hay I imagine. Have had them on grass for the past week. Can you suggest any remedy? [Bathe twice daily with the following lotion: Powdered nitrate of potash, 2 oz.; acetate of lead, 1 oz.; compound tincture of aloes, 4 oz.; water, 2 qts.; mix.]

Give the cows a daily supply of salt and they will not meddle with old bones.

If you have any buckwheat feed it to your laying hens. It is a great egg food.

Where a field is overrun with weeds frequent summer plowing is the only remedy.

Everything on a farm is valuable. The compost heap is the farmer's saving bank.

Treatment for roup in chickens after it has become confirmed is almost useless. It is contagious, and ailing fowls should be kept by themselves or killed.

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

The time to kill strawberry root-borers is after the fruit has been gathered and the insects are feeding on the leaves. They feed on the leaves in August and September, and then they can be destroyed by Paris green, without the slightest danger to man.

Hay Fever.

For twenty-five years I have been severely afflicted with Hay Fever. While I was suffering intensely I was induced, through Mr. Tichenor's testimonial, to try Ely's Cream Balm. The effect was marvellous. It enabled me to perform my pastoral duties without the slightest inconvenience, and I have escaped a return attack. I pronounce Ely's Cream Balm a cure for Hay Fever.—WM. T. CARR, Presbyterian Pastor, Elizabeth, N. J. Not a liquid nor a snuff.

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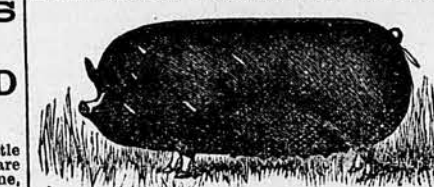
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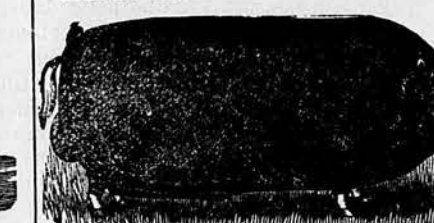
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PLEASANT VALLEY HERD OF Pure-bred Berkshire Swine.



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 2919, 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 skin, or for matured animals. Prices reasonable. Satisfaction guaranteed. Send for catalogue and price list, free.
S. McCULLUGH,
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 16 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.

PIG EXTRICATOR, to aid animals in giving birth. Send for free circular to WM. DULIN, Avoca, Pottawatomie Co., Iowa.

Poland-China and Berkshire HOGS.



We have for sale a fine lot of Poland-China and Berkshire Pigs, from 2 to 6 months old. Ours is the largest herd of pure-bred Swine in the State, and the very best strains of blood of each breed. If you want any of our stock write us and describe what you want. We have been in the business many years, and have sold many hogs in this and in other States, and with universal satisfaction to our patrons. Our hogs are fine in form and style, of large size, quick, growth, good bone, hardy and of wonderful vitality. Our Poland-Chinas are recorded in the American Poland-China Record.

RANDOLPH & RANDOLPH,
EMPORIA, LYON CO., KANSAS.



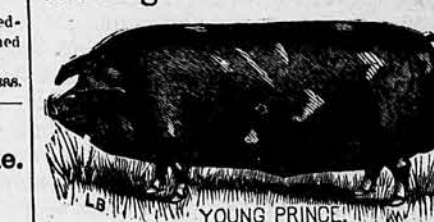
ROME PARK STOCK FARM, located seven miles south of Wellington, Sumner Co., Kansas; Rome depot adjoining farm. I have 35 bred sows—Poland-China and 122 English Berkshire pure. Also 230 high grade short-horn cattle. Stock recorded in Ohio and American Records. The animals of this herd were and are prize-winners and descendants of prize-winners, selected with care from the notable hogs in the different States without regard to price. The best lot of sows to be seen. Am using six to 12 Corn-shell 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.

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 2261, Young U. S. 4491. Laudable, vol. 6 (own brother to Look-No-Farther 405) 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.

Thoroughbred Poland-Chinas



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.

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 307.
Residence, 7 miles west of Wellington, near Mayfield.

The Busy Bee.

Hiving Swarms of Bees.

This is the way bee-hiving appears to a correspondent of the *American Bee Journal*, writing from Michigan:

My apiary is located in an apple orchard in which there are no limbs that cannot be reached by means of a ladder. My hiving implements are two clothes-baskets lined with cotton cloth, and furnished with burlap covers sewed fast at one side. I might remark, parenthetically, that a long basket, like a clothes-basket, is better than a round basket for taking down swarms, as the bees often form long clusters lengthwise of the branches. I also have a step-ladder, a pair of heavy pruning shears (with these small branches can be severed more easily and with less jar than with a knife or saw), a fine-tooth saw for cutting large limbs (I do not often use the saw, as I am opposed to cutting large limbs from the trees). I also use a quart dipper, a fountain pump, two large tin pails, and if the apiary was not located near a small stream, I should add to the above a barrel for holding water.

When a swarm begins to issue, I carry a hive to the stand that I wish the swarm to occupy, and prepare the hive for occupancy. When the bees begin to cluster, I make an examination to see if they are clustering in a favorable location for shaking them into a basket. If they have selected a spot where two or more limbs cross, or small branches are interlaced, I take the shears and clip away some of the branches, and thus secure the cluster in a convenient location for dislodgement.

If the bees are slow in clustering, at a time when more swarms are momentarily expected, I sometimes hasten matters by sprinkling the flying bees, by using the spraying attachment of the pump. When the bees are fairly clustered, I first detach a small portion of them that perhaps are adhering to some small twig, and carry them, still adhering to the twig, and place them at the entrance of the hive, without dislodging them from the twig. These bees at once commence running in and setting up that joyful hum announcing that they have found a home; and when the rest of the swarm is brought and shaken down in front of the hive, this humming at the entrance calls in the swarm at once; while, if the swarm is shaken down without this precaution, a large portion of the bees often take wing, perhaps the queen among the number, before the entrance to the hive is discovered, and the fact announced by joyful humming.

Many of the bees that take wing go back and cluster where they originally clustered, and if the queen takes wing she may go with them. If there is no small cluster that can be readily detached, I then dip off a quart of bees from the lower part of the cluster and pour them down at the entrance of the hive. After some of the bees are running in at the entrance of the hive, I hold a basket close under the cluster and shake the bees into it with a quick shake, throw the burlap cover over the basket to prevent any of the bees from leaving, carry the basket to the hive, strike one end of the basket sharply upon the ground two or three times, which will shake all the bees to one end, and dislodge them from the cover; throw back the cover and shake the bees out upon the ground in front of the hive.

I do not shake them against the front of the hive, as the entrance would at once become clogged; but perhaps eighteen inches or two feet from the hive.

I do not sit right down by the hive and drive the bees in with a smoker, and keep a constant watch that the entrance is not stopped up, but I do go occasionally and see how things are progressing; and if there is a great mass of bees clustered over the entrance, I poke them away and thus clean the way for another installment of bees to enter.

There is a great difference in swarms as regards the agility with which they will enter the hive. Occasionally there is a laggard that never gets inside the hive until the coolness of night, or till the bee-keeper with a smoker drives it in. If the bees cluster upon a small branch that I am willing to sacrifice, I cut it off and put it with the bees in front of the hive.

The fountain pump is a favorite implement with me. With it and plenty of water it is next to an impossibility for a swarm to abscond. I have had three or four swarms try to leave, but I compelled them to stay, and in one instance there were no trees near, and they clustered upon so small a shrub that I was obliged to hold it up until they had finished clustering, as it was too small to support their weight.

In controlling a swarm in the air, the spraying attachment should not be used, as the water cannot be thrown far enough; but by using the nozzle attachment, and giving a swinging or sweeping movement to the arm as the stream is thrown, the water is so scattered that it falls in a shower. The pump is also useful in preventing swarms from uniting. Only yesterday I had two swarms issue at the same time from hives only about twenty feet apart; and yet I kept them from uniting, and induced them to cluster in trees several rods apart. I did this by keeping a constant spray of water between the swarms as they came out and circled in the air; and sometimes I almost despaired of accomplishing the object, but I persevered and succeeded.

Among the colonies purchased during last year and this season, were some having queens with clipped wings, and I had more trouble with swarms from their colonies than from those with queens having unclipped wings. If the swarm is not seen the moment it issues, the queen sometimes gets out of the hive and crawls and hops some little distance away, and while looking for her, one is liable to steep on her. The bees circle about for a long time, and if another swarm issues they are almost certain to join it. When they do finally decide to return, they sometimes make a mistake and enter the wrong hive or hives; and when they do find the right hive they sometimes cluster all over the outside of it instead of going in. When the queen is released, as the bees are going in, she sometimes comes out again, after having entered the hive, thinking, perhaps that she has not swarmed; when, of course, the bees follow her. Placing the caged queen at the entrance of the hive aids the bees in finding the hive.

Messrs. A. D. Robbins & Co., of Topeka, Kansas, want it distinctly understood that they have plenty of Money to Loan on good improved farms in Eastern and Middle Kansas, in sums of \$500 and upwards, at 7 per cent. interest, and in sums of \$1,500 and upwards at 6 per cent. interest. Commissions as reasonable as any agency in Kansas. No inflated values taken. We are here to stay, and desire to do a conservative business. If you are wanting a loan, address us. We have no traveling agents.

A. D. ROBBINS & Co.,
Topeka, Kansas.

A little girl who was watching a balloon ascension suddenly exclaimed: "Mamma, I shouldn't think God would like to have that man go up to heaven alive."

Legitimate Trade vs. Speculative Gambling.

The *Midland Farmer*, published at St. Louis, Mo., tells some wholesome truths in the following: The infatuation to gamble is not confined to any single nation, nor is it a development of modern civilization. It flourished in China when that country was as a blank to the rest of the world, and it contaminates nearly all classes of society in the Western hemisphere. Although it may be said that gambling, pure and simple, is more wide-spread in oriental countries, it is still left to this country to lead the world in the more modern developments of the evil. Some of our most magnificent buildings are devoted to its use under the plea of facilitating business, and many of our leading public men are constant worshippers at its shrine. Legitimate business has been pushed in the background, and dealing in futures, manipulating corners and fleecing the lambs, have stepped forward and taken its place, and are now ranked as honorable callings.

Our exchanges, which were originally erected to serve legitimate trade, are now permeated with this modern artifice of gambling. The parent institution, originally erected as a resort for investors, is to-day a gaming house pure and simple. The greater portion of the business transacted on its floor is gambling more or less veiled. Like all evils it has spread quickly, and to-day the same spirit has become the prime mover of most of our exchanges. This mania to obtain wealth without labor, to live and flourish by simple throws of the dice, have made men reckless and impervious to either moral consideration or to shame.

Nor is this the only dark side to these modern business methods. Speculation is all right for the speculators so long as they are the masters of the situation. In the days when our exchanges most flourished, and these gamblers in stocks, food products, or minerals, amassed their large fortunes, this country was the purchasing mart of the world. Prices of all were put to the highest point, and oftentimes far beyond the limit of justification. This compelled our customers to seek "fresh fields and pastures new." To a fair extent they have succeeded; with what result is hardly yet determined. To-day we are informed that our farmers are selling their wheat below the cost of production. Our railways are carrying it at prices that do not pay the bare expenses. Yet our old customers who who bought it freely when our gamblers were reveling in success, tell us even at the price, they do not want it. The unhealthy stimulus which produced artificial prices and brought about an unnatural inflation which was worked to the utmost limit by our speculators, is responsible for the present stagnation, and reduction of our foreign trade in six months of \$60,000,000.

What are the plain unvarnished facts? This city possesses an army of professional gamblers of probably not less than 10,000 strong, who frequent our exchanges. They are absolutely unnecessary for legitimate business. They are non-producers in the truest sense of the word. They avail themselves of every chance to check, injure and damage legitimate business at every turn. A striking proof was given in the recent attempt to corner Japan tea. This army must live and, wolf-like, would not live long if left to themselves. They must, therefore, draw their sinews of war from legitimate business, with what ultimate consequences it is difficult to surmise. One truth, however, must be plain to all. If our legitimate business is to be taxed with this artificial incubus, the nation must suffer when placed in competition with countries not similarly handicapped. In the battle for commercial supremacy the victory will lie with those most capable of winning it; therefore a system that adds to the cost and free development of our natural resources must and should be quickly removed.

The present dilemma that this spirit of gambling has placed the country in, is accurately described in a dispatch sent from Paris by one of the *Lesters*, by the way a prince of gamblers. He says: "Trade in Paris is dull; they want neither stocks, wheat nor provisions; anything American is in bad odor." Can it be wondered at? Europe has been surfeited by our bogus watered stocks, taxed to the utmost by our speculators for food products, until at last she rebelled.

There is abundant evidence of the inju-

rious effect of this wide-spread gambling upon legitimate business. It would be no easy task to paint the misery caused in thousands of American homes by operations on the stock exchange. The steady and continued reduction in our foreign trade and the outward movement of gold are incontrovertible facts that the sins of illegitimate speculation are being visited upon the innocent and the guilty alike. The defenders of these institutions may reply: "We are not the sinners—the public will gamble." True, but the more facilities there are for gambling the more the evil will spread, particularly when it is made legal and branded with respectability.

At the present time no European nation in its business life is so permeated with this spirit of gambling as our own. The extent it has reached in this country is alarming and argues ill for the future if allowed to go unchecked or unrestricted. True, the present condition of things reflects to a certain extent the state of society and speculation, not altogether an unmixed evil, is deeply rooted in the American people. However, there is no denying the fact that this gambling element of our commercial life is now upon its trial. It may go through the ordeal and survive, but it has already received a severe blow, which, if left alone, may prove serious; therefore, wise and prudent business men can afford to look on, confining their dealings to their legitimate business, and thus add strength and stability to the only true mode of sustaining and increasing the prosperity and wealth of the country.

A tenant in a house at the east end of London, that last refuge of poverty, recently testified before a charitable committee to having taken twenty-two thicknesses of paper off the walls of a room, preparatory to repapering it.



"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.

A HOME DRUGGIST

TESTIFIES.

Popularity at home is not always the best test of merit, but we point proudly to the fact that no other medicine has won for itself such universal approbation in its own city, state, and country, and among all people, as

Ayer's Sarsaparilla.

The following letter from one of our best-known Massachusetts Druggists should be of interest to every sufferer:—

RHEUMATISM. "Eight years ago I had an attack of Rheumatism, so severe that I could not move from the bed, or dress, without help. I tried several remedies without much if any relief, until I took AYER'S SARSAPARILLA, by the use of two bottles of which I was completely cured. Have sold large quantities of your SARSAPARILLA, and it still retains its wonderful popularity. The many notable cures it has effected in this vicinity convince me that it is the best blood medicine ever offered to the public."
E. F. HARRIS.
River St., Buckland, Mass., May 13, 1882.

SALT RHEUM. GEORGE ANDREWS, overseer in the Lowell Carpet Corporation, was for over twenty years before his removal to Lowell afflicted with Salt Rheum in its worst form. Its ulcerations actually covered more than half the surface of his body and limbs. He was entirely cured by AYER'S SARSAPARILLA. See certificate in Ayer's Almanac for 1883.

PREPARED BY

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

Sold by all Druggists; \$1, six bottles for \$5.

This, That and the Other.

"A wise man reflects before he speaks; a fool speaks and then reflects on what he has spoken."

The sturgeon fishermen in Winnebago Lake use lines six miles long, and use 20,000 hooks on a line.

"There is nothing that is a sure cure for laziness, but I have known a second wife to hurry it some."—*Josh Billings*.

In Madagascar the crocodile is sacred and is seldom destroyed by the inhabitants, although it frequently kills cattle and human beings.

The register of Hyde Abbey, Winchester, written in the reign of Canute, is still in existence, and forms part of the Ashburnham collection.

"Look at the baste, wid his two tooth-picks stickin' out er his mouth," was how the sight of an elephant first affected Bridget Muldoon.

"Why John," said his mother, as she caught him stealing her cake, "I am surprised." "So am I," was the reply, "for I didn't know you were at home."

"True friendship is a plant of slow growth, and must undergo and withstand the shocks of adversity before it is entitled to the appellation."—*Washington*.

An Irishman who lived in an attic, being asked what part of the house he occupied answered: "If the house were turned topsy-turvy, I'd be livin' on the first flure."

"How do you pronounce s-t-i-n-g-y?" asked the teacher of the dunce of the class. The boy replied: "It depends a good deal on whether the word refers to a person or a bee."

Queen Margherita of Italy has a set of lace worth \$40,000, which has descended to her through several generations. It always belongs to the chief lady of the house of Savoy.

The bones and teeth of some unknown animal were recently discovered near the Genesee river. One of the teeth was 3½ inches long and 2½ inches wide across the crown.

Among the odd things made in England for the Indian and African trade are locks and keys which are sold for a half penny, and are worn by Hindoos and Africans as charms.

A colored organization in Washington, D. C., bears up under the name of the "Ancient and United Order of the Sons and Daughters and Brothers and Sisters of Moses and the World at Large."

During the last three years the exports of silk from Japan to England only increased about twenty per cent., whereas those for the United States increased 150, and those for France and Italy 250 per cent.

A little five-year-old boy, who had seen a peacock for the first time, ran into the house, exclaiming to his sister: "Oh, Liz-zie! I've seen a great, big, monstiferous tail walking around, with a hen tied to it!"

In France only sixty stock brokers are allowed by the law to exist. The intending stock broker has to give security to the extent of \$50,000, then to pay \$30,000 to the committee of stock brokers, and the transfer stamp of \$5,000, besides providing about \$80,000 to carry on the business, or a total of 500,000.

In another column of this journal will be found the advertisement of The Superior Drill Co., of Springfield, Ohio. This company is engaged in the manufacture of the well known Superior Force Feed Grain Drills and Broadcast Seeders; also Cider Mills, Hay Forks, Carriers and Equipments. Descriptive Catalogues free. The SUPERIOR DRILL CO. Springfield, O.

The Superior Drill with the Fertilizer Attachment has become justly celebrated wherever it is necessary to sow phosphates or artificial fertilizers in connection with the grain; and this Drill is so constructed that the fertilizer can be sown at such times and in such quantities as the operator of the drill may desire, without affecting in any manner the flow of the grain, which is also under perfect control.

The Superior Drill Company has just placed upon the market their new Shoe

Drill, which is coming into great favor in many sections of the country.

If any of our readers are interested in the purchase of the class of machinery above described, they would do well to write to the Superior Drill Company for their illustrated catalogue and other valuable printed matter, which they send free on application.

FROM THE PRESIDENT

OF BAYLOR UNIVERSITY.

"Independence, Texas, Sept. 26, 1883.

Gentlemen:

Ayer's Hair Vigor

Has been used in my household for three reasons:—

- 1st. To prevent falling out of the hair.
- 2d. To prevent too rapid change of color.
- 3d. As a dressing.

It has given entire satisfaction in every instance. Yours respectfully,
WM. CAREY CRANE."

AYER'S HAIR VIGOR is entirely free from uncleanly, dangerous, or injurious substances. It prevents the hair from turning gray, restores gray hair to its original color, prevents baldness, preserves the hair and promotes its growth, cures dandruff and all diseases of the hair and scalp, and is, at the same time, a very superior and desirable dressing.

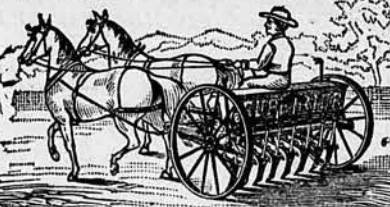
PREPARED BY

Dr. J. C. Ayer & Co., Lowell, Mass.
Sold by all Druggists.

GUNS. For information FREE, send to
PHOENIX FIREARMS CO., 41 Barclay St., N. 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.

SUPERIOR



GRAIN DRILLS,
With Adjustable Force Feed, Spring Hoe, Hoe Pressure and Fertilizer Attachments.
Superior Broadcast Seeders,
Cider Mills, Hay Forks, Carriers and Equipments. Descriptive Catalogues free.
The SUPERIOR DRILL CO. Springfield, O.

RED RIVER VALLEY LANDS A FARM
\$80 DOWN \$6667 IN SIX ANNUAL PAYMENTS 7% CENT INTEREST WILL BUY 160 ACRES.

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.

THE STRAY LIST

HOW TO POST A STRAY.

BY AN ACT of the Legislature, approved Feb 27, 1880, 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 annexed 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, all 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 vest 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 July 9, '84

Butler county—James Fisher, clerk.

COW—Taken up by Samuel Daughters, of Union tp, June 9, 1884, one cow, supposed to be 5 years old, black and white, sides light red, branded 1 x on right hip; valued at \$25.

Douglas county—Joel S. White, clerk.

HEIFER—Taken up by E W Rake, 2 miles south of

Big Springs, in Lercompton tp, December —, 1883, one red-roan 2-year-old heifer, hole in left ear with hole torn out; valued at \$17.50.

STEER—By same, one white-roan yearling steer, hole in left ear and tips of both ears off; valued at \$17.50.

Neosho county—A. C. Gibson, clerk.
PONY—Taken up by W O Hughes, in Shiloh tp, one sorrel pony mare, about 8 years old, letter W on left side and on left shoulder.

Shawnee county—Chas. F. Spencer, clerk.
MARE—Taken up by John B Batterton, in Auburn tp, June 9 1884, one black mare, 4 years old, 13 or 14 hands high, left hind foot white, wart on left hind hock, and a little lame in right fore foot; valued at \$50.

Allen county—R W Duffy, clerk.

HEIFER—Taken up by Wm McKinley, in Humboldt tp, June 12, 1884, one white yearling heifer with roan neck, no marks or brands; valued at \$12.

Strays for week ending July 16, '84.

Rawlins county—Cyrus Anderson, clerk.
STEER—Taken up by F F Musso, of Atwood tp, May 8, 1884, one roan yearling steer, indistinguishable brand on left shoulder and hip; valued at \$25.

STEER—By same, one red and white yearling steer, brand something like 5 L on left side; valued at \$15.

STEER—By same, one red steer, brand something like 8 F & R; valued at \$25.

Labette county—F. W. Felt, clerk.

PONY—Taken up by Wm Johns, in Osage tp, June 10, 1884, one bay pony mare, 4 or 5 years old, 14½ hands high, shod all around, small star in forehead; valued at \$30.

Leavenworth county—J. W. Niehaus, clerk.

COW—Taken up by Michael McInerney, of Kickapoo tp, June 11, 1884, one milch cow, about 8 years old, red and white, star in face, a slit in right ear; valued at \$35.

Saline county—Jos. Sargent, clerk.

HORSE—Taken up by August Zieble, in Walnut tp, June 21, 1884, one br. wn horse, 15½ hands high, 4 years old, white spot on forehead; valued at \$75.

MARE—By same, one bay mare, 14½ hands high, 4 years old, no marks or brands; valued at \$75.

MULE—By same, one bay mule, 14 hands high, 10 years old, crippled in right fore leg, no marks or brands; valued at \$50.

McPherson county—E. L. Loomis, clerk.

PONY—Taken up by G H Caulfield, in Empire tp, May 27, 1884, one gray mare pony, 9 years old; valued at \$15.

Strays for week ending July 23, '84.

Ness County—James H. Elting, clerk.

PONY—Taken up by A D Huling, in Waring tp, (Elm Valley P. O.) June 28, 1884, one bay horse pony, 8 years old, blind in right eye, P on left jaw, F. N. U. and Mexican brand on left hip; valued at \$30.

Hodgman county—J. P. Aikin, clerk.

PONY—Taken up by Charles Bramley, in Marensa tp, July 1, 1884, one bay horse pony, medium size, indistinguishable brand on left shoulder; valued at \$20.

PONY—By same, one small dun horse pony, branded same as above; valued at \$15.

Reno county—W. R. Marshall, clerk.

PONY—Taken up by W D Jewell, in Valley tp, June 26, 1884, one bay pony mare, head-stall on when taken up, N B (joined together) on left thigh near stifle joint; valued at \$50.

Labette county—F. W. Felt, clerk.

STEER—Taken up by S L Whiting, in Hackberry tp, July 11, 1884, one red steer, white face, about 2 years old, branded on left hip with letter B; valued at \$40.

Pottawatomie county—I. W. Zimmerman, clk.

PONY—Taken up by Thos. Gerity, in Emmett tp, July 8, 1884, one light bay mare pony, 6 years old, right hind foot white, no marks or brands; valued at \$30.

WILEY & RUSSELL W'FG CO., Greenfield, Mass.

MANUFACTURERS OF THE
Celebrated Lightning Screw Plate,
and other labor-saving tools for carriage-makers, Machinists and blacksmiths. Send for Price List.

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Our stock of Pianos is larger and more attractive this season than ever before. Over thirty years experience has taught us the secret of having just THE instruments with which to supply the DEMANDS OF THE PEOPLE—not of any one class, but of ALL CLASSES. We, therefore, have Pianos of all prices and styles, to conform to the circumstances and tastes of people of all classes and occupations, and sell either upon monthly payments or for cash, as our customers may prefer.

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VISITORS ALWAYS WELCOME, whether wishing to purchase or not.

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203 NORTH FIFTH STREET, ST. LOUIS, MO.

Linseed Poultice.

The great art of poultice making consists in applying it to the patient sufficiently hot, and therefore it is advisable to warm all the materials before beginning. Crushed linseed should be used, and not linseed meal, from which all the oil has been extracted. The linseed commonly sold in packets is not of the right sort, for, if it were, the paper would be quite saturated with oil before the packet had been made up many hours. Put the linseed before the fire, or in the oven for twenty minutes to heat. Use by preference a tin bowl. Pour in as much boiling water as will be needed for the poultice, sprinkle in the hot linseed with one hand, and stir vigorously with a knife to the required thickness. To judge of this requires some practice. If the poultice be for an open wound it must be made much softer than if merely intended to relieve pain; but in no case should it be sufficiently moist to stick in patches to the skin of the patient. The next step is to take a square of rag or paper half an inch larger all round than the poultice is intended to be, spread the linseed on this about half an inch thick, leaving the edges clear; fold the rag over on each side, and apply at once, covering with a pad of cotton wool and a layer of oil silk to keep the heat in. It is a good plan to oil the face of the poultice with a feather, as this effectually keeps it from sticking to the skin, even if it is not well mixed, and it is better than to put the poultice into a muslin. If, however, the muslin is preferred, on no account should a bag be made, for the poultice cools while it is being put in. A large piece of old linen, folded over at the back like a parcel, keeps the linseed in, and makes it at the same time a pad to cover it. If a mustard poultice is wanted it can be made in the same way, save for adding a certain proportion of dry mustard to the linseed. Some persons prefer to boil a little mustard in the water that is to be used.

Ginger-Beer Powders.

Get ten ounces cream of tartar, one and a half ounces powdered tartaric acid, four ounces best ground ginger, two drachms essence of lemon. Put the ginger on a large sheet of brown paper, and sprinkle the essence of lemon over it in drops, then add the other powders, and mix all together thoroughly. It can be well mixed by hand with time and patience, but it is better done with a mortar and pestle. Perhaps you could get them mixed by the druggist who supplies the ingredients. Put the finished powder into a dry bottle, and label "Ginger-beer Powder."—Directions to make the ginger-beer: Take two and three-quarter ounces of the above powder, and pour three quarts of boiling water on it, then add a pound of loaf sugar and five quarts of cold water. Mix a pint of this mixture when new-milk warm, with two tablespoonfuls of good barm or yeast, and stir all well up together, and set to work in a warm place. As soon as a good head comes up, which will be in about twelve or eighteen hours, bottle for use; tie the corks down with wire or string, and lay the bottles on their sides. If required of better quality add less cold water. Use a wooden vessel to ferment in. The above quantities of ingredients for the powder would make sufficient for nine brews like this, or about twenty gallons of beer. One eighth part of these quantities would be more than sufficient for one brew of over two gallons. It makes a capital fermented beer, if the directions be carefully carried out.

There is an Irish legend that the space now covered by the lake of Inchiquin was once the site of a populous city, which, for some dreadful and unabsolved crime, was buried beneath the deep waters. The "dark spirit of its king still resides in one of the caverns which borders the lake, and once every seven years, at midnight, he issues forth, mounted on his white charger, and makes the complete circuit of the lake, a performance which is to continue till the silver hoofs of his steed are worn out, when the curse will be removed, and the city reappear once more in all its bygone condition." The peasantry affirm that even now, on a calm night, one may clearly see the towers and spires gleaming through the clear water.

Ignoble ambition seeks to stand at the top, not by one's own worthy deeds, but by pulling others down below his own level.

CATARRH Hay Fever



It is a type of catarrh having peculiar symptoms. It is attended by an inflamed condition of the lining membrane of the nostrils, tear ducts and throat, affecting the lungs. An acrid mucus is secreted, the discharge is accompanied with a painful burning sensation. There are severe spasms of sneezing, frequent attacks of blinding headache, a watery and inflamed state of the eyes.

CREAM BALM is a remedy founded on a correct diagnosis of this disease and can be depended upon. It has gained an enviable reputation wherever known, displacing all other preparations.

Not a Liquid or Snuff.

Apply by the finger into the nostrils. It will be absorbed, effectually cleansing the nasal passages of catarrhal virus, causing healthy secretions. It allays inflammation, protects the membranous linings of the head from additional colds, completely heals the sores and restores the senses of taste and smell. 50 cts. at druggists; 60 cts. by mail. Sample bottle by mail 10 cts.

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HOPS & MALT BITTERS
TRADE MARK
THE GREAT BLOOD PURIFIER
Liver and Kidney Remedy,
Compounded from the well known
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sara Sagrada, etc., combined with an
agreeable Aromatic Elixir.

THEY CURE DYSPEPSIA & INDIGESTION,
Act upon the Liver and Kidneys,
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REGULATE THE BOWELS.
They cure Rheumatism, and all Uri-
nary troubles. They invigorate,
nourish, strengthen and quiet
the Nervous System.

As a Tonic they have no Equal.
Take none but Hops and Malt Bitters.

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LEIS' DANDELION TONIC
LIFE GIVING PRINCIPLE
THE GREAT
BLOOD & LIVER PURIFIER

A SURE CURE FOR
Sick Headache, Dyspepsia, Langour,
Nervous Exhaustion arising from over-
work or excess of any kind,
—AND FOR—

Female Weaknesses.
—IT PREVENTS—

Malarial Poisoning and Fever and Ague,
And is a Specific for Obstinate

CONSTIPATION.
PRICE \$1.00 PER BOTTLE; SIX FOR \$5.00
SOLD BY DRUGGISTS EVERYWHERE.

IDEAL WIND MILL.

A NEW
DEPARTURE.

Among the many points of superiority of this Mill over ALL OTHERS, we mention

NO LEVERS, WEIGHTS, PULLEYS, CHAINS OR WIRES

Thrown in and out of wind by revolving the Pump Rod

Adjusted by **Lock Itself** In a heavy Pump Rod to **Lock Itself** gale if desired.

HAS A BRAKE which prevents wheel from running when out of the wind.

A perfect **SELF GOVERNOR** and very simple, having but one joint.

THE ONLY MILL using an automatic stop, which enables the wheel to run at a more **UNIFORM SPEED** in heavy winds.

15 YEARS EXPERIENCE

Enables us to produce absolutely the best Wind Mill in market.

Every Mill fully warranted. Agents wanted.

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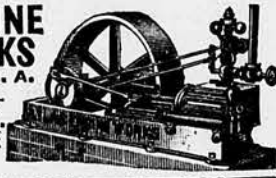
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Carry Engines and Boilers in Stock
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ONE, TWO, FOUR OR EIGHT HORSE HORSE POWERS.

BELT OR GEARED FEED GRINDERS.
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WIND MILLS,
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Riding, Walking and Combined
ADAMS SPRING CORN CULTIVATORS.
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Protected by the only Original Patents.
This machine is guaranteed to put up more hay in less time, and at less than half the cost by any other known method. One Ricker and two Rakes operated by five employees, will in one day take from 20 to 30 acres of hay perfectly clean from the swath as left by the mower, and pitch the same on the stack or wagon, in better condition than twice the force can windrow and cock the same. It seldom gets out of repair, but if it should any farmer can repair it. No Farmer can afford to do without it. Write for price lists and terms and circular giving full information.

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Will purify the BLOOD, regulate the LIVER and KIDNEYS, and RESTORE THE HEALTH and VIGOR of YOUTH. Dyspepsia, Want of Appetite, Indigestion, Lack of Strength, and Tired Feeling, absolutely cured. Bones, muscles and nerves receive new force. Enlivens the mind and supplies Brain Power. Suffering from complaints peculiar to their sex will find in DR. HARTER'S IRON TONIC a safe and speedy cure. Gives a clear, healthy complexion. Frequent attempts at counterfeiting only add to the popularity of the original. Do not experiment—get the ORIGINAL AND BEST.
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Seed in one day as our Patent
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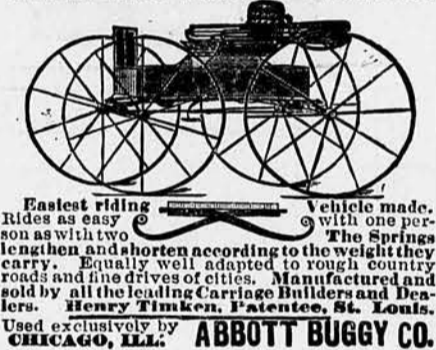


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Any BETTER
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Bales 10 tons a day. Loads full weight in cars.
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Is perfectly Self-Regulat-
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See that your stock is
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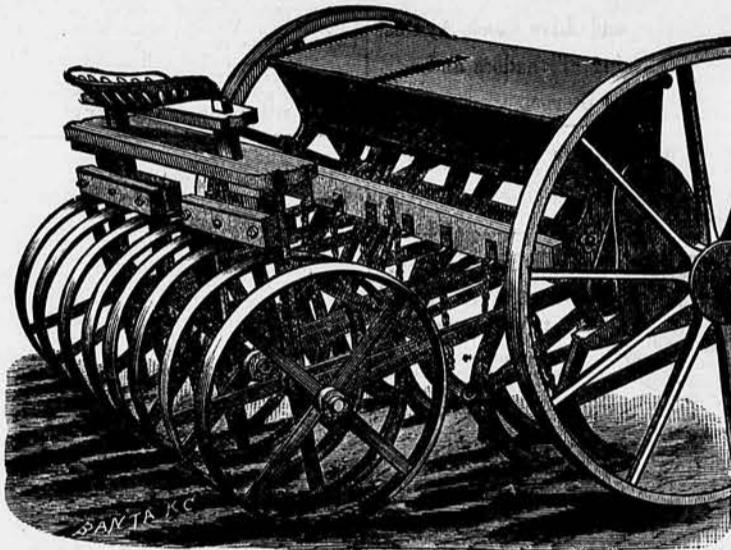
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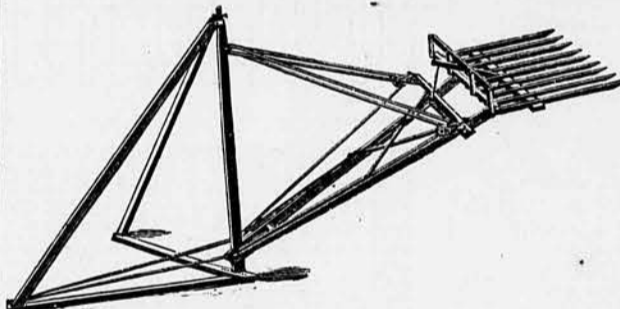


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The soil is firmly pressed on the seed, causing the soil to adhere to the seed, which greatly
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Requiring less than one-half the seed usually sown, from the fact that none is wasted, either by a
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\$1 THE ATTACHMENT CAN BE COUPLED TO ANY GRAIN DRILL.

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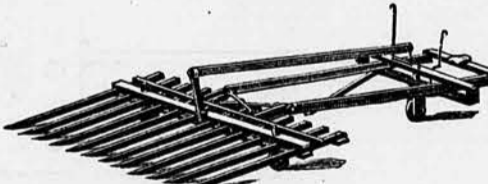


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Simplicity of Construc-
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No Engineer Required!
Any Farm Hand Can
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Light Draft and Per-
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CAPACITY of STACK-
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The MEADOW KING STACKER saves time and labor. It dumps the hay evenly over the
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Will do more and better work than any
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It is the cheapest and best Rake made
One man can rake from 20 to 30 acres
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We also manufacture THE TOPEKA SWIVEL TOWER WIND MILL, conceded to be
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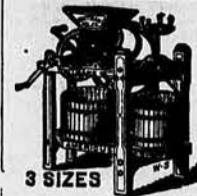
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WIRE for strength, like everything else, must have its true application. The above is the way which shows posts 80, 100, and 140 feet apart.
Wires passing through the brackets and resting upon the rollers, which are fastened to the post with a 3-inch bolt. The steel stays between the
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Saves its cost yearly, FIVE TIMES
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Manufacturers of
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Ties the best bundles and uses least twine.
Has all of Appleby's latest improvements.
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Only Binder using **DOUBLE PACKER TRIP.**
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All kinds TURNIP SEED, also SEED BUCKWHEAT, at TOPEKA SEED HOUSE, DOWNS & MEFFORD, Topeka, Kansas.

Thoroughbred ENGLISH BERKSHIRE PIGS.

Sixty to 90 days old, for sale at \$20.00 per pair, or \$12.50 singly. Sires and dams registered. C. G. McHATTON & SON, FULTON, Mo.

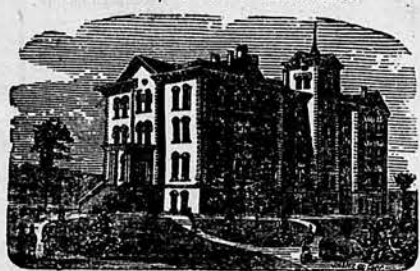
Over 800-Acre Sheep Ranch FOR SALE.

With or without stock, 200 by 16 feet sheep or cattle sheds; stone shanty 18 by 28 feet; well watered; timber; orchard; 150 acres under plow. Part time if desired. Address WM. C. CAMPBELL, Cawker City, Kansas.

Stock Ranch for Sale.

A well-watered stock ranch of 1,280 acres, three miles west of Stockton, county seat of Rooks county. A creamery and a school house one-half mile from the ranch. 640 acres under fence and 300 acres in cultivation. The ranch has four good springs and abundance of running water in the creek. There is a good stone residence, stone stable, frame corn crib, a stone cattle stable 14x12 feet, ice and milk house 12x30 feet and corral 150x40 feet, a good well and 600 growing catalpa trees. Price \$7 per acre; one-third cash, balance on time at 8 per cent. Address ROOKS CO. BANK, Stockton, Kansas.

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TO FARMERS' SONS AND DAUGHTERS

A full four years' course of study in English and Sciences most directly useful on the farm or in the home with careful training in the industrial arts adjusted to the wants of students throughout the State, with shorter courses in common branches, and all

Tuition Free.

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with eighteen instructors, 395 students, buildings worth \$80,000, stock and apparatus worth \$40,000, and a productive endowment of \$475,000.

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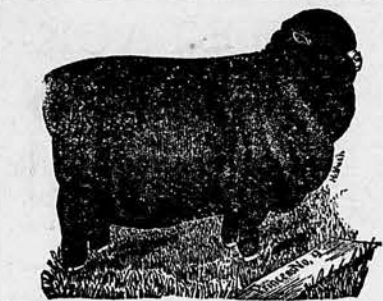
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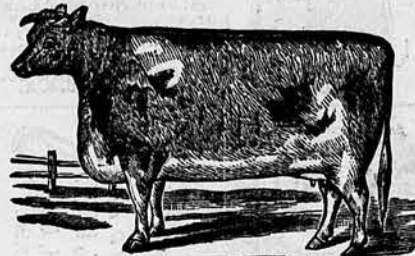
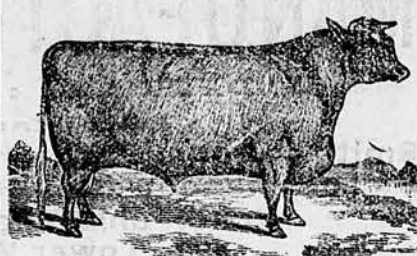


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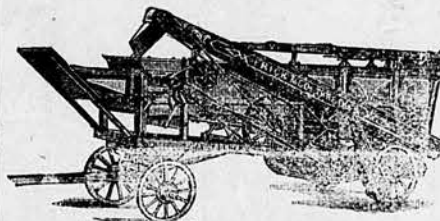


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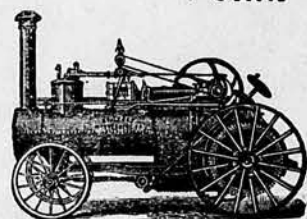
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