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INDIGESTION IN CATTLE

[Synonyms.-Dry Murrain, Bloody Murrain, Impaction of the Stomach, Stomach Staggers, Maw-bound, Enteritis.]

DEFINITION.

Under the head of indigestion I propose to treat of all those derangements of the digestive organs which are so common to cattle in this State. While the lesions produced by the complaints differ very materially the symptoms of all are so closely grouped together and the causes so nearly related that to treat of each one separately would only serve to confound the readers for whom this report is intended. The object sought in presenting this article to the public is to direct the attention of stock-raisers to causes which produce these complaints and the means and measures necessary to prevent

Dry murrain is used to designate that condition in which marked constipation exists without any organic disease of the digestive organs. When the discharges from the bowels are bloody, and they be either hard or soft, the trouble is called bloody murrain.

When the first stomach, or rumen, is packed with undigested food, the complaint is called impaction of the rumen (paunch) When this condition is found in the third stomach it is called impaction of the manuply. (The second and fourth stomachs are never impacted). Whenever, from overdistension of the first or third stomachs, the functions of the brain are so deranged that the animal staggers in his gait, turns in a circle or stumbles as he walks, the disease is known as stomach staggers.

Maw-bound means simply that the contents of the maw, or first stomach, are prevented from passing onward in the process of digestion; in other words, it is impaction of the rumen.

Enteritis, in the broad sense, is used to designate inflammation of the bowels, of the stomachs, or of both.

GENERAL PREVALENCE OF THE DISEASE.

The losses of cattle in this State resulting from derangement of the digestive organs undoubtedly exceed the losses produced by all other causes combined. While the disease is occasionally seen during the spring and summer months, it is most common during the autumn and winter; and while no part of the State is free from the complaint, it is most common in the great corn-raising counties. The general prevalence of the disease, and consequently of the mortality, is determined largely by the character of our seasons, for upon these seasons the quality of our cattle food greatly depends.

CAUSES.

The one great cause of indigestion in cattle is the use of much dry and innutritious food throughout a great part of the year. An occasional case of acute indigestion or of enteritis will be found in animals kept on rich food; but these are exceptional cases, and the cause therefor is not always to be found in the nature of the food. Unfortunately it is the custom in this State to feed stock cattle largely upon cornstalks which have been left to ripen in the fields, and upon grass which has been deprived of most of its nutritious qualities by reaching maturity before being made into hay. As is well known, when grass, wheat, rye, millet and corn are allowed to ripen on the ground the stalk contains but little nutritious matter,

being composed almost entirely of indigestible cullulose and woody fiber. Even the buffalo grass, which in times gone by was considered a superior article of winter food for cattle, has, of late years, lost much of its vaunted reputation owing to the late autumn rains washing out the most of its nutritious

Such food, poor in beat-producing elements, is not adapted to the proper maintenance of the functions of life. Not only is it deficient in quality, but by reason of its poverty it imposes an extra tax upon the digestive organs in that they may extract from the mass the little nutriment which it may contain. Too often this expenditure of force in the process of digestion is greater than can be replaced by the small percentage of matter utilized. The greater the supply of such food the sooner does the digestive machine wear out. In other words, the ore is too poor to pay for the crushing. True it is that many cattle do manage to maintain an existence on such food until the spring grasses insure a new lease upon life, but surely there is no economy in such a poverty of condi-

Another cause of indigestion is to be found in musty hay, straw and fodder. Of these three musty straw, and particularly oat straw, is the most common. Musty fodder is rather rare, for the reason that but little corn is cut up, and when it is it is so ripe that little curing is required. Rotten corn, when left in the fields at the time of gathering, may prove productive of serious digestive derangements to cattle turned into the stalks to pasture. The small percentage, however, of such grain, gathered with the crop, is not likely to do any harm. But the refuse from cribs in which corn has been stored should never be used for food, since it is exceedingly dangerous, particularly to horses and cattle.

As to whether the smut of corn is dangerous when eaten by cattle seems to be an open question. The majority of writers on the subject imagine that it is; and yet, in so far as I can learn, all experiments made in feeding it, even in very large quantities for many days at a time, have been unattended by any serious results. From my own observations I am led to the conclusion that it is not poisonous, and that if it has any unfavorable influence on the animal eating it, this influence is limited solely to the tendency it may have to produce impaction. But a deficiency in the quantity and quality of the food supply stands not alone as the cause of an excessive mortality among our stock cattle; want of shelter and poor water lend helping hands in this waste of wealth. Want of shelter is simply a waste of fuel, for the animal temperature must be maintained at the normal standard of 100 deg. If it falls much below this the animal dies. To sustain this temperature requires the constant conversion of food into heat. If food is not sup plied from without the animal must fall back on his own store-house of fat Anything which increases the loss of body heat increases the demand for food. Exposure to bleak winds and low temperatures tend to exhaust the heat of the body, and this in turn proves dangerous by impairing all life functions, particularly that of digestion. These reasons in part account for the increased mortality among cattle which attends all our cold spells of winter. Want of

ing a thousand pounds while kept on good food. Very rich food may be digested with a lesser quantity. The more dry and innutritious the food the greater must be the supply of water. Cornstalks and poor prairie hay require the consumption of from ninety to one hundred pounds of water per day for each animal of a thousand pounds. This immense mass of water must be raised to the temperature of the animal before it becomes a part of himself in the intricate processes of life. This can only be done by the expenditure of animal heat which must be replaced, primarily, by the process of digestion. It follows then that the colder this supply of water the greater is the task of heating it to the normal temperature of the body. In other words, very cold water for cattle in winter weather is a waste of food. And not only is it a waste of food, but it is also detrimental to digestion, for it largely arrests this function until the water has reached the temperature of the body. Instinctively the unsheltered brute drinks sparingly of very cold water in winter weather-a precaution not always unattended by danger, for it may excite a fatal impaction of one or both the stomachs.

A deficient supply of water is detrimental for still another reason, for without an ample quantity the nutritious elements cannot be extracted from the food, and as a consequence they are wasted by passing out of the body unused. At the same time a stint in the water supply makes the process of chewing the cud both slow and laborious. That the water supply then should be pure, plentiful, accessible and not too cold in winter, must be apparent to all who give the matter thought. Lastly, in this connection, it would seem that no argument should be necessary to prove that the owner is amply compensated for the care which he may give his animals, and yet there is so much wealth lost each year in cattle that die for the want of proper food and shelter, one is forced to the conclusion that too many owners are imbued with the idea that the border line of starvation is the economical highway to success in raising stock. From this belief, or at least from this practice, I emphatically dis sent. It is not right, it is not just to the dumb brute, and it is not economical to meanly care for the animal which by virtue of its circumstances is deprived of the opportunity to care for itself,

SYMPTOMS.

The symptoms of deranged digestion in cattle are most characteristic. They vary, of course, within certain limits according to the organ most affected and the nature of the derangement. No one case will present all of the symptoms here enumerated, but the presence of several of the more promineut ones will enable any one who is closely observant to make a diagnosis. The greatnelds, and the symptoms in these cases generally appear within a few hours after the animals have gratified their appetites. It is quite common to find one or more of a bunch dead the next morning after their first experience in the stalks. At other times no sick ones are seen for two or three days, and even a week or ten days may elapse before the last will sicken from a single meal made in the stalk fields. In one outbreak which I saw this fall, of twenty-seven animals turned in the stalks one afternoon fourteen were water is not less dangerous than want of dead within twenty-six hours; in another food and shelter. About seventy pounds of six died during the first night; in another water per day are required by a steer weigh- fourteen died in ten days and three were

sick; in another eleven out of twenty-three died within two weeks; and in still another twenty-three out of forty-seven died within four weeks. These are by no means exceptional cases.

When an animal has been kept for a long time on poor coarse food the symptoms are more slowly developed and death not so sudden. In these cases the animal grows poor, the bones stick out, the flanks tuck up, the back is arched, the coat is rough and wiry, the limbs are weak and exposure causes severe fit of shivering. An attack of indigestion is now ushered in by a loss of appetite, a failure to chew the cud, a dull, sunken, staring appearance of the eyes, a more or less discharge of saliva from the mouth, grinding of the teeth, trembling of the muscles, particularly in the flanks, knuckling of the hind fetlocks, stumbling over slight inequalities of the ground, unsteadiness of the hind parts when walking, straining to pass manure, which is hard, dark-colored and generally covered with shreds of mucous and often spots of blood, the frequent passage of small quantities of urine, complete paralysis and death. In some cases the first thing noticed is that the animal leaves the herd and stands by himself, refusing to eat or drink. In others he stands with head erect, the eyes glaring, ready to run at anything which comes near him. In others he stands and bawls at frequent intervals. Or he may have repeated spasms in which he falls to the ground, where he remains until the fit has passed, when he arises as if nothing had happened. In other cases the first symptoms seen is a wild rubbing of the head or hind quarters against a post or tree. The itching is so intense in many of these cases that the hair is rubbed off and the skin lacerated until the blood flows freely. For some unknown reason the right side of the head at the base of the horn or root of the ear is the part most often injured in this manner. In some cases the hind fetlock joints are torn with the teeth. In some, the animal has spells of complete blindness during which he stumbles around and over objects like a drunken man. In many instances they persist in turning around in a small circle. Some hunt for water, and while they rarely drink much, often die in the stream or on its banks. Some will wander aimlessly around or stray miles away and die. Some have rigid contractions of the muscles of the neck and back so that they cannot place the head to the ground. Some seem to improve after two or three days illness, then relapse and die. Many die in from two to ten hours time, while others live for as many days. Some bloat before or shortly after death, while many never bloat at all. While the majority of cases have the most marked constipation, with more or less colicky pains, est losses occur from turning cattle into stalk some have diarrhea. The young as well as he aged are alike susceptible. As a rule, the heartiest eaters are the first to sicken and die. The mortality is very great, as but few recover from an attack.

POST MORTEM APPEARANCES.

When a number of animals have been turned int , stalk fields and the next morning from one to ten per cent. are found dead a post mortem will show the first stomach filled with a great mass of fodder which is only slightly masticated. The third stomach is filled with dry food-often so dry that it will crumble like ashes. This in many instances is all that can be found. In cases

(Continued on page 4.)

The Stock Interest.

About Wintering Lambs.

A correspondent of the Rural New Yorker gives the following useful hints about wintering lambs:

It must not be forgotten that, no matter what the temperature to which an animal is exposed, its bodily heat must be maintained at 98 deg., or else it suffers in health; and digestion, in common with the other functions, becomes impaired and only loss can ensue; and that this temperature, when no artificial heat is used, is kept up solely by the combustion of a portion of the food. It follows, then, that in the too common way of wintering lambs in the open field or yards, a very large proportion of the food is thus consumed, and so far as any returns to the owner, it might just as well have been burned in a heap. Now, if the lambs were so housed in warm quarters that the consumption of food necessary to keep them warm was reduced one-half, the other half would go to add to the growth, and as the quarters once built will last many years, the amount chargeable to the lambs would be only the sum of interest and repairs. It will pay to build stables just for the saving

in this direction. In the wintering of lambs, as in the keeping of other stock, a certain amount of food is required beyond that necessary to maintain heat in supplying the waste of tissue in sustaining life (in running the machine), and if no more be fed than what is necessary to supply this waste, the only possible profit could be in an increased value in spring over fall; but, as has been shown, a shorn yearling, if in only store condition, is worth less than the lamb in the previous fall, so that he who winters in the old way has to work against this decline. But when so fed as to become fat and in demand for slaughter, the spring price, even without the fleece, will be about the full value of the added weight. If the quarters in which the lamb is are of the best construction, the gain in weight will be in proportion to the food consumed, providing such food is selected and proportioned so as to be most conducive to growth; but it must not be forgotten that lambs require very different food from full-grown sheep. In the lambs there will be a large proportionate increase of bone and muscle, as well as of fat and wool, and our ration must be suited to the growth of each and all. After much experience, I have found a mixture containing 100 pounds of corn, 50 pounds of bran, and 50 pounds of new-process oil meal, as near the thing as any I have tried. Of this, beginning with a small quantity and gradually increasing until they receive all they will eat, the average amount eaten by each per day will not be far from 1 pound, or 180 pounds for the winter. In this ration the bran furnishes a surplus of the phosphates for the bones, the oil meal. of the nitrogenous matter for the muscles and wool, and the corn, of the fats and carbohydrates for sustaining heat and furnishing fat, while the combination of hay and mangels, and the straw, which should be given daily, furnishes a very well-balanced food. If the old-process meal is used, the proportion must be greatly reduced, or the proportion of free oil will be in excess of the ability of the stomach to digest, and its effect will be medicinal and harmful, and for the reason that I can buy the carbohydrates much cheaper in the corn than in the oil meal, I greatly prefer the newprocess meal with its less free oil and much larger proportion of albuminous

mixture will, at last year's prices, be as follows: 100 pounds of corn, 80 cents; 50 pounds of oil meal, 56 cents, and 50 pounds of bran. 30 cents, or \$1.66 for 200 pounds, or 83 cents per hundred, or for the 180 pounds eaten for the winter, about \$1.50. But in addition to the grain, hay and straw ration, to do its best the lamb must have a daily feed of some green food. I use mangels, and feed one-half bushel to twenty lambs, which would require 4½ bushels for each lamb during the winter, costing not over 32 cents.

When sold, our account against the lamb will stand about as follows:

60 pounds lamb at 4 cents	\$2.40
Six months' interest	.07
Rent of barn room	.08
325 pounds hay at \$8 per ton	1.40
180 pounds of feed	1,50
4½ bushels mangels	.32

Aggregate......\$5.77 To its credit there will be 7 pounds of washed lamb's wool, worth, even at last winter's very low prices, \$1.40; 95 pounds of fat lamb, 51 cents, \$5.25; making an aggregate of \$6.25, and leaving a net profit of 851 cents per head, and adding the value of the manure (which is richly worth one-half the cost of the dry food, and one-eighth of that of the mangels, or \$1.49), the profit will be \$2.34\frac{1}{2} per head. It will be noticed that in neither case have I made any account of the straw fed the lambs. I have taken this course because the straw on most farms is a waste product, and must in some way be used up and returned to the fields, or else be burned up, as is the idiotic way of thousands of Western farmers; or, worse yet, allowed to rot down in a pile to become a breeding place of weeds and a scourge to the farm. Neither have I made any account of the labor in caring for the lambs, for the reason that almost every farmer has the help to care for his stock, and unless a business is made of winter-feeding, very little extra help will be needed and this will be very little more in the one case than in the other, and if charged in both would make the showing very much more unfavorable to the old way. Another thing which I have done is very unfair to the new way—I have conceded that, when highly grained, each lamb would eat as much hay as when fed hay and straw alone, and this is not true, as they will eat fully twice as much straw and one-third less hay. But with all the unfairness, and construing everything as unfavorable for the highly-fed and as favorable for the others as any one dare claim, still every reasoning man must see that the sooner the old way is abandoned and the new adopted, the better for the sheep-keeper and the more money he will have.

I am asked by several if the indications are favorable for a profitable feeding season. The indications are always care both of his stock and the manure he makes. There is not an acre of land there is always a profit in feeding. But might throw the parts so far in the line for this particular year, let us see: of the other foot, when in motion, as to Sheep and lambs are higher by about cause the cutting to continue in spite of one-half cent per pound than one year every attempt to prevent it. Speedy cut ago; grain and hay are not very much different. On the other hand, wool has the shoe of the opposite foot when the advanced at least 25 per cent., is strong horse is cantering, or throwing his feet at the advance, and promises to advance still more. There is a arge decrease in the number of sheep and a scarcity of feed on the Western ranges, so that while many sheep will be rushed East knee; but, in such a case of constituduring the fall and early winter, I am of | tional defect, the boot can never be dis-The cost of material for the above realized for good sheep in the spring.

Diseases of the Feet.

Thrush is inflammation of the lower surface of the sensible frog, says Herbert, which while so inflamed secretes pus, instead of horn; this offensive matter being exuded from the cleft of the frog renders it sensitive to pain. The direct cause of thrush is doubtless too much secretion, especially of a foul kind; but this result will never occur unless the horse is, or has been, so shod as to prevent a natural expansion of the foot; and even where thrush has appeared it may sometimes be cured by the adoption of the "one-sided nailing." Corns in the feet of horses are injuries to the sole, usually occurring in the angle between the crust and bar on the inner side of the fore toot. They are caused by the pressure of the shoe, or of gravel which is lodged under the shoe. They are easily prevented, and when they occur they are a disgrace to the smith who shoes the animal, or to the groom who neglects to clean out the gravel which accumulates between the shoe and the foot. This may be cured, if recent, or greatly relieved, if of long standing, by a proper adaptation of the shoe. The sole should be (in the sound foot as well as that which has corns,) cut away from the angle in question until it is lower than the crust and the bar, and these should be so prepared as to afford an elevated support for the shoe, which, if properly made, will rest always upon them and will be in no danger of pressing upon the sole at the corn place." If the case is a bad one, and if the frog is sufficiently sound to withstand the pressure, a bar-shoe may Le used, which is chambered over the affected point, and so formed as to rest upon the frog. This treatment, however, should not be constant, as the frog would not long bear the pressure, and as the heel being relieved from the pressure might become softened, and produce permanent lameness. There are few cases in which a bar-shoe, thus formed, can be used for more than two successive shoeings. Cutting, or interfering, is the striking

of the fetlock joint with the opposite foot or its shoe. It arises sometimes from a defective formation of the legs. but generally from improper shoeing. On this subject Youatt says: Many expedients used to be tried to remove this: the inside heel has been raised and lowered, and the outside raised and lowered; and sometimes one operation has succeeded, and sometimes the contrary; and there was no point so involved in obscurity or so destitute of principles to guide the practitioner. The most successful remedy, and that which in the great majority of cases supersedes all others, is Mr. Turner's shoe, of equal thickness from heel to toe, and having but one nail on the inside of the shoe, and that near the toe: favorable to the feeder who takes good care being taken that the shoe shall not extend beyond the edge of the crust, and that the crust shall be rasped a little in any of the older States, and I doubt at the quarters. When the leg is at all if there is in any of the States east of swoolen from the cutting, it should be the Mississippi river, that would not be protected by a boot, which should in all better if manured, and when we count cases remain on until the cure is comthe value of the manure properly used, plete, as if the swelling remained it is a cut of the knee, by the striking of very high in the trot. The only remedy, when the shoeing has been properly performed, and the cutting still continues, is to use the boot on the wounded the opinion that good prices will be pensed with, as an unluckly step might at any time cause the horse to fall from English pork,

the pain occasioned by the blow. Nailpricking, from careless shoeing, is very common, especially in country districts. where the smith is very often guided only by the horse flinching, in deciding whether a nail has gone too deep. Injury from these causes is not always perceptible at the time of shoeing, but it will be certain to appear in a few days. When an injury arising from this cause is detected, the shoe should be removed and the foot examined, that the extent of the injury may be learned. Stonehenge gives the following directions for the treatment of such cases: On removing the shoe it is found that there is great tenderness at some particular part of the foot, and sometimes a slight bulging; but this is seldom evident so soon. It is the better plan to place the foot in a cold bran poultice, without a shoe on, and wait for a day or two, when, if the foot continues very hot, the smith must pare down the horn over the suspected place, and let out the matter, if there is any; or, if necessary, bleed at the toe, which is likely to relieve the inflammation, and prevent suppuration, if it has not already occurred. If matter has formed, and is let out, a little friar's balsam is pushed into the abscess on a piece of lint, and the shoe tacked on; but the lint must be so left as to be capable of being pulled out on the next day, so as to leave a clear opening for the matter to escape. In a few days the shoe must be taken off again, and any ragged pieces of horn removed, as well as the opening enlarged, if necessary .- American

Taking the fairs of the country as a whole, it is probable that the premiums offered for horse-flesh in its many classes will equal or exceed those given for all other kinds of live stock put together. Though out of proportion, the inequality would be less noticeable if the greater part of this were not absorbed by the speed ring. The fact is that track premiums, as a rule, are as much too high, on an average, as premiums in the more useful horse exhibits are too

The Country Gentleman states that a manager who long had charge of the horses of a street railroad found the best ration to consist of equal quantities of bran and cornmeal, together with equal weights of hay and straw cut and thoroughly moistened. This may be well to remember and act upon by all farmers and others who have plenty of straw, which is worth a great deal more if kept bright and dry under the shelter, than if half-rotten and weather-beaten out

There is of course no excuse for the abuse of any farm stock—but if there is a single kind which seems to be more clearly entitled than any other to especially kind treatment it is the horse. His faithfulness, his intelligence, his capability for affection for his owner, all appeal to the better side of human nature with a distinctness which cannot be mistaken. The man who wilfully maltreats his horse deserves the contempt of his fellows, besides the heavy hand of the law on his shoulders

Tobacco refuse is a rich and quick-acting fertilizer. It is also repulsive to insects.

More than half the diseases so prevalent among farm horses are due to improper attention to the common laws of sanitation.

Be merciful to dumb animals. Heal all open sores and cuts with Stewart's Healing Powder, 15 and 50 cents a box.

American pork now enters Germany through England, and thus evades the payment of duty. In England it is branded as

In the Dairy.

HOW TO MAKE GOOD BUTTER. By T. D. Curtis, of the Eureka Salt Manufacturing Company.

THE HERD.

I shall not give the preference to any breed. It is only necessary that cream should be rich in fat, and churn easily. These qualities may be possessed by the cream of the milk from any of the breeds. Even elephants' milk is said to be superior in this respect. These qualities can be practically ascertained only by the test of the churn. Of course, the cream must be rich in flavor, and free from the bitter taste peculiar to the cream and milk of some cows.

THE FEED.

As milk is made from the food which the cow eats, and partakes more or less of the quality and flavor of the food, it follows that cows must run in clean, sweet pastures in summer, and that the cows get hold of no rank-flavored vegetation, either in the pasture or on the road to the barnyard or stable where the milking is done. Just the nipping of mal-flavored herbage on the way to and from the pasture has been known and from the pasture has been known to give a bad flavor to the milk, and to the products manufactured from it. Even the breathing of air passing over carrion, or an onion field has been found to taint the milk of the cows thus inhaling it. Salt should be regularly given to the cows. A better way is to put the salt where the cows can go and lick it at any time. They will not take too much when it is always present. But when it is given to them occasiontoo much when it is always present. But when it is given to them occasionally, they will eat to excess, and thus induce thirst and fever, that interfere with the operation of milk secretion. The stronger cows will thrust aside the weaker ones, so that the latter will not get salt enough, while the former are gorging with it. For this reason if salt is not kept regularly within the reach of the cows the better way is to salt them in the stalls, where each gets just them in the stalls, where each gets just what is given to her, and no more. Salt is not only essential to the health of the is not only essential to the health of the cow, aiding digestion and assimilation, but affects the churning of the cream.

A lack of salt for the cows will make hard churning, and trouble in this way might often be obviated by giving the cows a proper amount of salt.

In winter special care should be taken the country the country that are should be taken the country the country the country the country that are should be taken the country that the country that the country the country the country the countr

to give the cows the right kinds of food, in the right proportions, so that the nitrogenous, or milk and muscle-producing foods shall bear a proper relation to the amount of carbonaceous, or heat and fat-producing foods. Early-cut hay—say timothy or orchard grass, cut hay—say timothy or orchard grass, with a mixture of clover and other sweet grasses—if supplemented with cornmeal and oatmeal, or cornmeal and wheat bran, mixed in equal proportion by weight, will make a good feed for butter. It is well, however, to always have a little sweet ensilage, or beets, or other succulent food, and give the cows a mess of it once a day. It will, as a relish, not only aid digestion and promote health—and whatever promotes health aids in milk secretion—but improve the churning quality of the cream; for it has been found that all dry feed for it has been found that all dry feed makes hard churning, and causes a waste of the fats in the buttermilk, and this can be prevented by giving the cows juicy, succulent food with their dry hay and grain.

THE DRINK.

It is important that the cow should have plenty of clean water to drink, and that she should not be put to too much trouble to get it. If she is she will often get very thirsty before she drinks, and then will drink so much as to make her feverish and uncomfortable—a condition not favorable to milk secretion. Do not let your cows drink out of stagnant ponds or pools. If you do the spores of algæ, which are microscopic, will enter into the circulation of the cow, and appear in her milk, rendering it unwholesome for human food, and of course injuring its products. In winter course injuring its products. In winter it will be found of advantage to take the chill off from the water given to the cow, and to prevent her getting chilled when she goes to drink. Chilling the cow shrinks the flow of milk and reduces its quality. It takes an extra amount of feed to raise the temperature of the animal organism after it has ture of the animal organism after it has been reduced by chilling. It therefore pays to keep the cow as comfortable and contented as possible.

SURROUNDINGS.

All the surroundings must be kept

clean and sweet. The droppings must be promptly cleared away, and absorbents-such as dry earth, sawdust, land plaster, dry muck, etc.—must be freely used in the stable or milking shed. No animal or vegetable matter must be allowed to decay in the vicinity of where the cows are milked, nor where they can breathe the atmosphere that is loaded with the bacteria arising from the decaying matter. Nor must the milk be allowed to stand in such an atmosphere, so these bacteria can drop into it, and there begin the work of decomposition, by feeding on the nitrogenous portions of the milk.

VENTILATION.

Too much attention can not be paid to keeping the cows supplied with pure, sweet air. The supply of air should come in at the cows' head and pass off at the rear. But most stables are arranged to let the air in at the rear of the cows, where, being heavier than the warm air inside, it drops down and takes up the vapor and odors of the droppings. up the vapor and odors of the droppings, along with the exhalations from the cows bodies, and bears them along to their heads, to be drawn into their lungs and mingled with their blood at every breath. Fifteen minutes of such in-halation, Prof. L. B. Arnold declares, will taint the milk immediately thereafter drawn from the cows' udder, and give it "a taste of the barnyard." People who are otherwise cleanly are often troubled with this taste in their milk, which they cannot account for the people with the trouble lies in the bad milk, which they cannot account for, when all the trouble lies in the bad ventilation, or no ventilation, of their stables, or of whatever place they milk in. There should be a free circulation of air, avoiding drafts, and a place for the escape of all foul odors as fast as they rise, without their being permitted to load the air which the cows breathe. Better apply a little artificial heat than keep your cows cooped up in a smothering atmosphere, which is inimical both ing atmosphere, which is inimical both to the health of the animal and the production of the best of milk. Sweet food, sweet water, and sweet air, are absolutely essential to the production of the best butter.

CLEANLINESS.

As might be inferred from what has gone before, absolute cleanliness is indispensable. Most people have some idea of cleanliness, but not the same ideas. The term is comparative and admits of degrees of application. But while all have some ideas of cleanliness. while all have some ideas of cleanliness, while all have some ideas of cleaniness, I have sometimes thought that some people have no idea of nastiness. To them as is said to be the case with the pure in heart, all things are pure. I will, therefore, try to give you some idea of what I mean by cleanliness. To begin with, the person should be clean enough not to emit offensive odors. The clothing should have like freedom clothing should have like freedom The clothing should have like freedom from bad odors, and have no dirt adhering to it that may rattle off and drop into the milk. All loose dirt and hairs should be brushed from the side, flank and udder of the cow, that it may not drop into the milk. If there is filth on the cave and der that cannot be brushed. drop into the milk. If there is filth on the cow's udder that cannot be brushed or wiped off, it should be wasned off, not with milk drawn from the teat, but with water near by in another pail than the one to be milked in. As I like to have the hairs and butter kept apart on the table, so I like to have the filth and milk kept apart in the stable. Proceed to milk gently, quietly, and briskly, avoiding everything liable to hurt or irritate the cow. In no case depend on the strainer to take out dirt, for some of it will dissolve, if it gets into the milk, and cannot be strained out. Only loose particles held mechanically, can be taken out by the strainer. The rest will taken out by the strainer. The rest will remain to injure the flavor of the pro-duct. Therefore, keep the dirt out, and strain the milk to take out such floating hairs or particles as your vigilance falls to keep out. Rinse all things—strainers, pails, cans, churns, cream pots, skim-mers, and so on—with cold water as soon as used. Then give them a thorough washing before they dry, in water as warm as the hands can bear, and put as warm as the hands can bear, and plut a little sal soda, ammonia, or other alkali, in the water, to cut the grease on the articles washed. After this washing scald them in boiling water and set them out in the pure air—in the sunshine if possible—to dry and aerate. If they are wiped, let the wiping be done with a perfectly clean cloth, not before used since being thoroughly washed and used since being thoroughly washed and boiled. Set the holloware on its side, the open end turned a little downward. so that floating spores and particles of dirt will not settle down in them and

find a resting place. (To be concluded next week.)

BREEDERS' DIRECTORY.

Cards of three lines or less, will be inserted in the Breed"B Directory for \$10.00 per year, or \$5.00 for ets months; to additional line, \$2.00 per year. A copy of the paper the beautiful to sent the advertiser during the continuance of the

HORSES.

PROSPECT FARM.—H. W. McAfee, Topeka, Kas., breeder of Thoroughbred CLYDESDALE HORSES and SHORT-HORN CATTLE. A number of choice bulls, also horses for sale now. Write or call.

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F. M. LAIL, MARSHALL, Mo., breeder of the finest POLAND-CHINA HOGS AND PLYMOUTH ROCK CHICKENS.

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OUR ILLUSTRATED JOURNAL.—A full and complete history of the Poland-China Hog, sent free on application. Stock of all ages and conditions for sale. Address J. & C. STRAWN, Newark, Ohio.

SHEEP.

CHROPSHIRE - DOWNS. — Rd. Jones, Wakefield, O'Clay Co., Kas., breeder and importer of Shropshire-Downs. A number of rams and ewes for sale, at low prices, according to quality.

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SHEEP.

MERINO SHEEP.



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A D. JENCKS, North Topeks, Kas., a No. 1 Plymouth Rock breeder. A few more choice Cockerels and Pullets for sale. Premium stock.

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ONE THOUSAND FOWLS;
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ONE DULLAR PER THIRTEEN—For Eags from my choice Plymouth Rock Fowls and entra Pekia Ducks. Mark S. Salisbury, Box 31, Kansas City, Mo.

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S. B. URMY, 137 Kansas avenue, Topeka, Kas., Live Stock Auctioneer. Sales made in any part of the State. Correspondence solicited.

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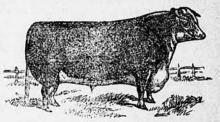
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W. S. WHITE, Sabetha, Kansas

Breeder of High-class Short-horns, will sell some choice Females in car lots or singly, to suit purchasers. Also a few good Bulls. Prices low. Write or come.

(Continued from page 1.)

which live longer and in which dry fodder has been the only food for some time, the first stomach often contains a great mass of fodder, corn husks, coarse grass, etc., so entangled that it can scarcely be torn apart. This condition of the food of course prevents it from being raised in the form of a cud for re-chewing, and as a consequence it remains in the stomach as a foreign body which cannot escape until it causes death. In other instances the condition of the first stomsch will be found normal, with the exception of patches of congested mucous membrane. The third stomach may then be found packed with very dry food, or it, too, may be in apparent healthy condition. In these cases the fourth or true stomach is found with a uniformly reddened mucous membrane or with great patches congested and inflamed. If this stomach is healthy in appearance the intestines are the seat of inflammatory changes. They may present dark, red or purple patches confined to the lining membrane, or the whole substance of the intestines may be discolored and blackened. The liver is often spotted and very easily torn, while in nearly all cases where impaction is present the gall bladder will be found distended with a thick fluid. This distension may be so great that all the tissues seem to be discolored with the brownish yellow pigment of the bile. The kidneys are often congested. The lower bowels generally contain dry masses of manure coated with mucous and blood. The lung on the side next to the ground at the time of death is always black from engorgement with blood. The other lung is often spotted with congested patches. The windpipe may be filled with a frothy mucous. The heart is often blood-shot on the outer as well as on the inner surface. The heart sac often contains an excess of fluid varying from one to sixteen ounces in quantity. Occasionally this fluid contains a mass of coagulated febrin. The cavities of the heart sometimes contain a dense clot of blood which is whitish in color near the center.

My post mortem examinations of the brain and spinal cord have not been extensive enough to warrant a conclusion as to the changes which may generally found in these organs. In those cases, however, when the patient has been wild and viciously disposed, followed later by complete loss of sensibility, I have found the brain congested. Where the hind parts first showed loss of power the spinal cord in the lumbar region showed slight congestion and some effusion of a clear fluid into the canal. In old cases, where the disease has lasted for several days, and where the cause was to be attributed to the long continued use of coarse, innutritious food, the post mortem appearances have been most interesting. In these cases the subject may have carried a fair amount of flesh, but the post mortem reveals an entire absence of fat among the muscles, around the heart, kidneys or the intestines and in the bones. In place of fat, however, is found an amber colored gelatinous matter which is clearly transparent. The bones were brittle, and could easily be cut to pieces with a knife. The bone cells or cavities were filled with the peculiar gelatinous matter. On opening the spinal canal the spinal cord, in those cases where paralysis of the hind parts was marked, was atrophied and white and surrounded in the lumbar region by the same gelatinous matter as found in other parts. That paralysis of the digestive organs happens in many of the cases of indigestion, particularly where the rumen and manyply are packed with food, I believe is true. It seems to me that this only will explain the cause of many of the early deaths in some outbreaks. If derangement of the organs of digestion can so readbegin at the seat of the primary trouble. The cause and nature of the lesions of the nervous system, however, deserve a further investigation and study.

TREATMENT.

The treatment of but few diseases is attended with such unsatisfactory results as this one. No matter what measures are resorted to, but few of these cases recover. The indications for treatment, however, demand that the digestive organs shall be re-

ginger, 2 ozs.; mex vomica, 2 drams; warm water, ½ gallon. Four hours afterward give 11/2 pints of raw linseed oll. To stimulate the stomachs to a performance of their functions give every two or three hours: Aromatic spirits of ammonia, 2 ozs.; cayenne pepper, 1/2 oz.; salt, 1 oz.; water, 1 quart. If the animal will not drink freely he should be drenched with tepid water every four hours. The food should consist of oat meal corn meal or bran slops. The bowels should be relieved by frequent injections of warm water. If the first stomach is filled with food a veterinary surgeon should be called in to remove the matter by opening the flank. If the stomach is distended with gas it should be tapped upon the left side with a trocar. If the abdominal pains are severe they may be relieved by 2 oz. doses of laudanum repeated every four hours. If the patient is on full feed and the attack is acute the oil only should be used as a physic and the stimulants may be omitted from the treatment. Diarrhoea may be present and yet the stomachs may be impacted; so that the diarrhoea alone is not a contra-indication for the use of full doses of physic.

In this as in all diseases, the main object sought should be the prevention of cases. Course, dry, innutritious food should never constitute the exclusive diet of cattle. If the hay is poor, corn, bran, sorghum or millett should be added. Sorghum is not only palatable, but by reason of the large percentage of juice which it contains tends to overcome any disposition to constipation. If corn stalks are to be used they should be cut before they are ripe and cured in the stock. If they are to be pastured in the field see to it that the cattle are not turned in until they are well filled with other food and water. A hungry animal should never be turned into a stalk field. Let the cattle have daily access to a mixture of salt, epsom salts and saltpetre mixed in the proportion of 45, 45 and 10 respectively.

A. A. HOLCOMBE, State Veterinarian.

THE FARMER AND POLITICS

An address delivered before the Farmers' Congress at Minneapolis, August 26, 1886, by Henry Wallace, editor of the *Homestead*, Des Moines, Iowa.

(Continued from last week.)

Equally useless is the advice freely given by each party to the farmer-"attend the primaries, nominate your candidates and we will use the party machinery to elect them." The farmer never has done it except on great occasions when his imperative necessities gave him a political spasm of activity as an organizer, as when he overturned things ten years ago and passed granger laws, or when, incensed by the insolence of the saloon, he has compelled the politicians to be prohibitionists. Occasionally he becomes so disgusted with the "law's delay" and the cost of criminal prosecutions that he sets up Judge Lynch's court and administers swift punishment, if not always justice. In the main, he allows the other fellows to manipulate the caucus and make the nominations, and then votes the ticket, because he has no strong and trusted leader ship in the line of his own interests that will enable him to retain the vantage gained even in his fitful and spasmodic efforts.

The remedy for the evils under which he and the whole nation suffer, is in our view two-fold. First, he must comprehend clearly what legislation he needs, what is just to him, just also to other callings and interests, and second, he must use his political power resolutely and fearlessly for the accomplishment of this purpose, through one party or the other, as the circumstances may require.

The first he is acquiring, and acquiring in the only way it is possible, through organizations of his own, variously known as the that are springing up almost hourly in every part of the nation. When he attempted this ten years ago he "fell among thieves." He is wiser now, and will not allow the leadership in these to pass into the hands of the partisan politician, nor into the hands of political or even agricultural newspapers. No outside influence can guide him. He must lead and guide himself. The law of vigorous growth, whether in boy, or girl, or man, or party, or nation, inexorably demands lieved of all indigestible matter, and for this self-reliance and self-government. In no purpose a full dose of physic is adminis- other way is it possible. In the discussion tered, consisting of epsom salts, 11/2 lbs.; in these associations of plans, and methods

and principles, and proposed legislation, the farmer will forge out convictions which will be his own, which he will learn speedily to frame into laws and enforce them. When this process has gone on, the agricultural paper will broaden out, and no longer hesitate to discuss questions of transportation. insurance, taxation and the kindred topics which are at the bottom of all that is vital in politics and which tax the wisdom of our real statesmen, instead of confining itself to instructions as to raising pigs and potatoes, cotton and corn, or magnifying the merits of the breeds of live stock that patronize the edvertising columns.

The agricultural paper must learn that the only way it can have a sheet anchor to windward that will hold against all financial storms from every quarter, is by being edited and managed from the standpoint of the farm, in all its broad and diversified interests, social, financial and politico-economical. The farmer's absolute confidence in the editor's wisdom and integrity and devotion to the agricultural interests is better financial backing than the favor of corporations or the patronage of advertising agents.

As suggested a moment ago, the farmer must, if he is to prosper, use his ballot, after deciding on what he wants, resolutely and fearlessly for the accomplishment of his purpose through one party or the other, as best suits his purpose. We do not believe in a Farmers' party. It will in the end be controlled by the worst kind of demagogues A lead pencil well sharpened and well used will do more for the farmers than any political organization.

If he has a party, it should have but one plank in its platform, and that the bad man's plank, and he should resolutely live up to that man's plank, and with his little lead pencil scratch every man's name off the ticket of his party who is morally corrupt, or who plays the demagogue, or who votes contrary to what he conceieves to be the interests of the farmer. Let the caucus or the convention put up whom it pleases. That is its business. But when the farmer allows it to dictate to him how he shall vote, when he cringes to the lash of the party whip, he is no longer a freeman but a slave. The farmer will never get his own till he is independent, and resolute and fearless in his independence. Other interests know no politics. The railroads have none, Wall street has none, the saloon has none.

They are Democratic or Republican, as suit their interests. And they are all 'scratchers." Let the farmer learn wisdom from them. He owes it to himself and to the nation and to civil liberty to hold the dominant party responsible for good goverament. If it does not rule well, turn it out. The present is the important thing and no good deeds in its past history can atone for present failings. And the way to reform things is not to stay at home and sulk and "sigh over the abominations," but go to the polls and manfully scratch off the bad men and vote for the other fellows, or if the corruption be ingrained, vote the other ticket. It possibly is no better, but put it under responsibility and try it.

Let the farmers try this method and it will astonish them how rapidly living questions and true statesmen will come to the

When the farmer knows what he wants and resolutely and independently votes for it, the political shyster and demagogue will be no more. Political speeches will cease to be rant and fustian and appeals to prejudice and passion. They will aim to reach the judgment and reason. There will then be something written on, the tariff, for instance, that is worth reading. Votes will not be made by packages of antiquated pumpkin seeds sent out from Washington to the farmer, or the more subtle and deliily produce paralysis of the hind limbs, it is fair to presume that this paralysis might

Farmers' Club, the Farmers' Alliance, the Grange, the Wheel and kindred associations wife. The member of Congress will dream of the corn or the cotton fields, and even the Senator will wonder whether the legislators by whom he expects to be re-elected, are in sympathy with the granger, or whether with his record they dare elect him. Our political friends, of whom we desire to speak in all kindness and with generous recognition of their many virtues, will say that the remedy is too severe. It ma; be a desperate remedy, but it is for a desperate disease, and they can adapt themselves to the situation easier than the farmer can adopt himself to eight cent cotton or fifteen cent corn. They are good fellows in 219 Kansas avenue.

the main, and nimble, and sinning mainly through ignorance. It will do them good to consider the ways and the interests of the granger for a while and become broader and wiser men.

PREMIUMS FOR 1886

Won by the Blue Ribbon Flock of Registered Merinos and Poultry Owned by R. T. McCulley & Bro., Lee's Summit, Mo.

R. T. McCulley & Bro., proprietors of the Blue Ribbon flock of registered Merino sheep, of Lee's Summit, Missouri, send us a list of premiums won by their flock in 1886, as fellows:

First National Sheep Shearing held at St. Louis (Mo.) April 7, 1886: Third premium ou ram 2 years old; first on ram 1 year old— Stickney, Jr., 290; second on ewe 2 years old; first and second on ewes 1 year old.

Western National Fair, Bismarck Grove (Kan.) September, 1886: First on ram 2 years old; first and second on yearling rams; first on ram lamb; first on pen 3 ewes 2 years old; first on three yearling ewes; first on three ewe lambs; first on ram Perfection, 215, and five of his get; first on flock of three rams and twelve ewes.

Kansas City (Mo,) Inter-State Fair: First on ram 1 year old; first on ewe lamb; first on 1 year old; second on ram and five of his get; second on flock of two rams and five ewes.

Missouri State Fair, Sedalia (Mo.): Second on ram 2 years old; first and second on yearling ram; second on ewe 2 years old; first on pair lambs; first on ewe 1 year old; econd on flock of one ram and five ewes.

Springfield (Mo.) Fair: First on ram 2 ears old; first on ram 1 year old; first on pair lambs; first on yearling ewe; second on we 2 years old; first on flock of one ram and five ewes.

Great St. Louis Fair: Second on ram 2 ears old; first on ram one year old; second on pen of three ram lambs; second on pen of three ewe lambs; second on pen three ewes 2 years old.

Kansas City (Mo.) Fat Stock Show, October, 1886: First on Merino wether; first on cross bred long wool wether; first on grade wether; first on best pen of five wethers bred and fed in Missouri; second on dressed carcass.

Flock have won over 175 premiums. amounting to \$4,875, in the past five years. Premiums won on pure bred poultry:

Bismarck Grove (Kan.): First on pair Bronze turkeys; second on pair Plymouth Rocks; second on pair Light Brahmas.

Kansas City Fair: First on pair Light Brahmas; second on pair Light Brahma chicks; second on pair Plymouth Rocks.

Sedalia (Mo.) Fair: First on pair Bronze urkeys; first on pair Plymouth Rocks. St. Louis (Mo.) Fair: Second on pair Bronze turkeys; second on pair Plymouth

The sheep business is much brighter than

for two years past. A great many sheep men that were so anxious to get rid of their sheep some few months ago have discovered as the prices of sheep and wool advance that it is not best to quit the business entirely, and are making enquiry for sheep.

We have sold over 100 rams this season and still have some very choice rams that we are selling at very low prices, considering quality.

Will send you list of our sales soon.

Money Tells!

It is a well-established fact that A. D. Robbins & Co., 179 Kansas avenue, Topeka, Kas., can place large farm loans, of \$3,000, to any amount required, at lower rates of interest and less commission than any agency in Kansas, when security is satisfactory and title perfect. No unreasonable delay. Our business is strictly confidential—or we could refer you to parties where we have placed in past year \$5,000, \$10,000, \$15,000, \$20,000, \$40,000 loans. We are prepared to make better rates than ever. Send description of property and amount required, and apply to headquarters for large or small leans. When applying for loans give numbers of land, town or range, amount of improvements and number of acres under plow.

Address

A. D. ROBBINS & Co.,

Topeka, Kas.

Good News!

Our "Skinner's Best" Boot reduced 50 cents per pair. Women's and Girls' School Snoes, the same reduction, and a splendid Rubber Boot at \$2.50. Remember the Pioneer Shoe Dealer-D. S. SKINNER

Corn-Oob Meal in Feeding. Kansas Farmer:

I have been looking over the report of feeding steers by Prof. Shelton, of our Agricultural College, for 1885; and the more I have studied it the more I am interested. Whether the facts given there are generally the case I know not, for I never have weighed enough to know; but if they are it is about time the farmers studied the subject of feeding more. One of the facts I noticed, that the heaviest steer on the start fed on corn-cob meal gained the most, and the lightest one of the five fed on corn meal gained the fastest, both making the same gain per hundred-28 lbs, the largest gaining 335 aand the smallest 260 pounds for the whole time-150 days, while the ten only averaged 200 in the same time.

The irregularity of the gain was another noticeable feature. Some of the steers in a period of ten days would gain fifty pounds, and at other times would fall down to one or two in the same time. Most of them were going to extremes all the way through the 150 days, whether they were fed on corncob meal or corn meal. If they were fed regularly, and that was generally the case, flesh is taken on differently from what I sup-pesed it was in fattening steers. The average of each steer per hundred was 18.2 pounds on corn cob meal and 18.6 on corn meal, and the meal consumed for one pound of increase was 12.6 for corn-cob meal and 11,66 for corn meal. At that ratio fifty-six pounds of corn meal would increase the weight of a steer five pounds, and with corn meal at 25 cents a bushel every pound of increase would cost 5 cents, besides care and coarse feed.

Prof. Shelton claims a gain of 117 pounds of meat on the five steers from 2,225 pounds of cob meal. I never had much faith in ground cobs; they are of too much a woody nature. I would think beech or maple ground up would give as good results; but they would be like corn cobs-hard to pulverize. Corn meal of itself is too concentrated. One-tenth wheat bran would make it digest better. From experiments that have been made, sixty pounds of good wheat made into graham flour will nourish a person as much as sixty pounds of fine flour; but there are so many drawbacks caring for wheat and making it suitable for the table that most persons prefer the fine flour. So with corn-cobs; while there may be some nourishment in them, Prof. Shelton's experience is, that it is not practicable to grind them at present. I know very little about feeding fat cattle, my experience has been in other lines; but I am satisfied that onetenth of something coarse with corn will give better results than clear corn.

E. W. BROWN.

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The Lights of Home.

A bit of garden where the summer sun Bids glad "good mornings," lingering "good nights"—

"good nights"—
Where clematis and honeysuckle run
In reckless rivalry to dizzy heights—
Where violets bloom in springtime, rivaling
The tender azure of the vernal dome,
And robins come, their earliest song to sing,
And build in happy faith their summer

A bit of lawn where shadows linger long
Through summer mornings, and each
passing breeze
Loiters a while to sing its minstrel song
Of love and laughter to the maple trees—
While crickets vainly strive to catch the tune
And bumble bees grow boisterous with delight

Till shadows come again with afternoon
And lengthen slowly eastward into night—

Between the two, a cottage nestling low— Fair when the sunset smiles, the night to But yet more fair, when o'er the drifted

Its own bright welcome hastes my weary

With sullen roar the fickle winds go past—
The trembling maples whisper their affright— But, gleaming golden through the whitened blast.

The lights of home shine out across the

The bitter winds blow some day through our

And in our hearts is many an empty nest,
And o'er the garden of our youth there drives
The snow of sorrow. Brightest then and

The lights of home shine out across the To welcome weary feet and hearts that

ache; And lo! their wonder-working beams trans-

To golden blessings every falling flake. -Arthur Boswell, in Good Housekeeping.

Equality of the Sexes.

Extract from a speech by Major Hudson, at the A. W. S. convention.

The enlightened judgment and the courage of the Kansas people, who in the face of a prejudice, old as the world, place their condemnation upon the drinking saloons, will adopt that other mearure of progress and justice-the enfranchisement of women.

In this republic of ours, the responsibility of the government rests equally upon all citizens in the enforcement of its laws and the payment of taxes, and it can never be a complete republic, until all citizens bearing its burdens, shall have the same rights of citizenship and thus we reach the fundamental principal upon which the right of suffrage to women rests, viz: That taxation and representaion should go hand in and. Sweden, Russia, Austria, England as it will in rare cases, the surgeon must be and Scotland have conferred the right of called, who can immediately arrest the hemmunicipal suffrage on women with various limitations, while in this country three Territories, Wyoming, Utah and Washington, have given women the bollot, while in twelve States, including Kansas, women have the right to vote in school elections.

The superficial idea that woman suffrage means getting some of the offices, is probably the one most generally suggested by the opponents of the measure. In the States and Territories where the experiement has been and is now being tried there is no evidence presented that it either unsexes the women or has been derogatory to men. We place the ballot in the hands of the foreigner who cannot read or speak our language, and who knows nothing of our government; we enfranchise a slave race a third of whom cannot read, and yet we deny to the women of America the ballot, which would in her hands, be the greatest protection of this republic against the ignorance and vice of the great centres of our population. Give to women the ballot and you give her equal pay, for the same work, as men. Give to women the ballot, and you destroy the saloon in every state. Give to women the ballot, and you break down prejudice and open to her every avocation she is competant to engage in. You do more-you give to her an individuality, an equal right in life, that forces back that ancient heathenism that proclaims the man-lord and master.

Signs of the Tongue.

The tongue is the indicator of the system. A white-coated tongue indicates febrile disturbance; a brown, meist tongue indicates

disordered digestion or overloaded passages; a brown, dry tongue indicates depressed vitality, as in typhoid conditions and bloodpoisoning; a red, moist tongue indicates debility, as from exhausting discharges; a red, dry tongue indicates pyrexia, or any inflammatory fever; a "strawberry" tongue, with prominent papillæ, indicates scarlet fever, or rotheln; a red, glazed tongue indicates debility, with want of assimilative power of digestion; a tremulous, flabby tongue indicates delirium tremens; hesitancy in protruding the tongue indicates concussion of the brain; protrusion at one side indicates paralysis of the muscles on that side .-Hall's Journal of Health.

Superstitions of the Fair Sex.

If a young lady finds a four-leaf clover and puts it in the heel of her shoe, the first unmarried gentleman she meets she will surely wed. The first gentleman she meets after counting ninety-nine white horses and one white mule, is her betrothed. The first gentleman passing through a doorway, over which is a "wish-bone," means that he and the lady putting it there will be married within a year. If nine stars are counted for nine successive nights, the next single gentleman that meets the fair one who did the counting is entitled to her heart, hand and fortune, if he is only brave enough to ask it. These are only a few of the many superstitions the members of the fair sex have of deciding their fate. The latest is to keep account of the number of young gentlemen who tip their hats to them, and the fortyfirst tip is the lucky or unlucky one. - Cineinnati Enquirer.

Cause and Cure of Nose-Bleeding.

Bleeding from the nose is a very common affection. It may be caused by injury, by a rush of blood to the head, or by the stoppage of some other discharge, or there may be a passive draining of venous blood in consequence of obstruction in the circulation by reason of disease of the heart or liver, or the blood may be too thin, and the vessels too lax, as in scurvy, and sometimes in the last stages of severe fevers. In the red-faced and full-blooded who usually suffer more or less headache, this hemorrhage, confined within narrow limits, is salutary, as serious disease may thus be warded off. Except in this condition, the bleeding should be arrested as soon as it can be done.

It is a common practice to incline the head over a basin of water, which, while it is convenient, tends to keep up the flow. The best position for the head is an erect one. Cold water or ice should be applied to the forehead and back of the neck, and powdered nutgalls, tannin or matico snuffed up the nostrils. This treatment proving ineffectual, orrhage by plugging the nostril.-J. C. Loveland, in Brattleboro Household.

Silk Underclothing.

There is a widely prevalent idea that silk is the best substance from which to make underclothing, and I have known many poor girls to stint themselves in the necessaries of life in order to save enough money to purchase silk undergarments. But silk is not the best material with which to make underclothes, so far as concerns their healthpreserving qualities, whatever may be its advantages so far as beauty and immediate comfort are concerned. The chief object of underclothing is the retention of the natural heat of the body in such a way that low temperature and sudden changes will not effect the surface. Several years ago I performed some experiments which went to show be yond a doubt that silk is below wool in its power to prevent the loss of heat from the body and very little superior to cotton. Indeed, nothing is in this respect preferable such a ready absorber of the perspiration as ing up as it does the moisture from the body, exposes it to the action of the atmosphere, it is evaporated, and the process being a cooling one, keeps the skin from becoming

Care of the Feet.

Ladies whose feet have become misshapen from excessively narrow boots can do much to remedy the difficulty by care and pains. Select easy, roomy shoes, and stockings of soft fabric. Bathe the feet thoroughly in water comfortably warm, never allowing it to grow cold enough to feel chilly, and wipe them thoroughly dry with a soft towelcoarse crash is almost poison to sensitive skins, and often causes irritation and a small tions. eruption like rash. Then rub into them thoroughly about the joints or injured parts either cold cream, or what is better, glycerine, perfectly pure, and mixed with double the quantity of water. Especially should it be diligently applied to the joints of the great toes if they are enlarged or painful. Wipe off with a damp cloth and dry carefully, after which powder the feet thoroughly with rice flour powder. Brush off all that comes away easily and put on the stocking, being careful that no semblance of a seam comes over the sensitive joints.

These cautions may seem trifles, but the feet are ill, and all conditions of recovery must be observed. Take care that they do not get very cold or in the least damp. The difficulty is an inflammation of the joint membranes and has had many serious results. At night the feet may be wiped off with a damp cloth and the glycerine and powder repeated. Ladies who adopt this plan will never find soft corns coming between the toes. For hard corns there is nothing better than a little judiciously applied caustic, which should touch the hardened part of the corn, never the surrounding flesh. Repeat every other day, first soaking the feet in warm water and gently scraping the surface of the corn until it will finally come out altogether. Great care must be taken to keep the caustic from the whole flesh, and the foot should never be damp, as the application will spread rapidly. Such a course of treatment, patiently followed, has in several cases restored to quite passable shape and comfort feet that were considered as hopelessly deformed.-Demorest's Monthly.

Notes and Recipes.

Cheese and Egg Sandwiches,-Grate the cheese, and to each cupful add the yolks of three hard-boiled eggs, minced fine; rub to a paste with a teaspoonful of butter, season to taste with salt and pepper and spread between buttered bread or crackers. These are nice made of graham bread.

To Stew Chickens Whole.-Take a large tender chicken and clean as for roasting; wash it well in several waters and wipe it dry with a clean towel; then season inside and outside with salt and pepper. Have ready as many oysters as the chicken will hold, which take out of their liquor, and after removing all the particles of shell that may adhere, put them into a colander and let drain; then season the oysters with salt and pepper and fill the chicken with as many as it will hold. After skewering it tight, put it into a tin pail with a closely-fitting top; put the pail into a pot of boiling water and let it boil until the chicken is tender. When the chicken is done, remove it to a hot dish, covering immediately, and set it where it will keep hot. Turn the gravy from the pail into a saucepan; add one tablespoonful of butter, three tablespoonfuls of cream, the yolks of three hard-boiled eggs chopped fine, a little minced parsley, and a tablespoonful of corn starch made smooth in a little cold milk. Boil up once, pour over the chicken and serve very hot.

A Pleasure to be Well Dressed.

I once heard a mother, who had been criticized for her personal vanity by a somewhat gossipy neighbor, say that she made it a duty and a pleasure to keep well dressed, for she was likely at any hour to be called to wool, and of this material all undercloth- upon to entertain friends whose good opining meant for winter use should be made. ion was of such consequence that she could In summer a mixture of wool and cotton not afford to run the risk of having them find called merino may be worn, but even in very her in any but neat and presentable attire. hot weather silk is not desirable, for it is not | The friends were husband and children, and she was fully compensated for her care in is wool, and hence allows the body to be this direction by their approval and apprecikept in a state not very remote from that ation. To be "well dressed" was not to her known as parboiled. Wool, however, tak- mind an admission of extravagance. Good taste and good planning often stand in the place of dollars and cents, and the lady in question was able to dress well on half the cost of her neighbor's wardrobe.-Laws of

Two 1886 Gold Medals.

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The young folks.

What Was It?

What have the angels thrown you to-day
Through the open window of heav'n?
Was it a sunbeam laughingly gay,
To you they have graciously given?
Or a gen or renown
From some jeweled crown?
Or fruit from the trees
With ne'er dying leaves?

Was it a lily with breath of perfume,
White-robed in spotless array?
Was it the flower of love, whose rich bloom
Augments with its growth each day?
Or wealth in rich store
'To count o'er and o'er?
Or genius sublime
To live for all time?

Maybe, a fragment of precious clay,
Or tone from golden harp-string?
From a quivering bow, an arrow astray,
Or plume from their own bright wing?
Or bird full of song
To sing all day long?
What was it, I pray,
They threw you to-day?

All these and much more they've thrown

All these and much more they've thrown to me,
From the window of their abode;
They opened it wide, loaned out afar,
And tossed me a precious load;
Add unto the rest,
A gold, silken crest,
Two eyes shining bright,
Two cheeks, dimpled, white;
Two velvety lips,
Ten pink finger-tips;
Then add to the whole,
An immortal soul;
And you'll know the rare gifts the angels distill,

distill,

And throw down to earth from their blue window-sill.

-Hannah More Kohans in Inter-Ocean.

The Biggest Things.

The largest theater in the world is the new opera house in Paris. It covers nearly three acres of ground; its cubic mass is 4,287,000 feet; it cost about 100,000,000 francs. The largest suspension bridge is the one between New York city and Brooklyn; the length of the main span is 1,595 feet 6 inches; the entire length of the bridge is 5,980 feet. The loftiest active volcano is Popocatapetl-"smoking mountain"—thirty-five miles southwest of Puebla, Mexico, it is 17,748 feet above the sea level and has a crater three miles in circumference and 1,000 feet. deep. The longest span of wire in the world during the day is excessive, but the nights is used for a telegraph in India over the are often cold. In winter the tempreature river Kistnah. It is more than 6,000 feet in is sometimes below freezing point. The length and is 1,200 feet high. The largest greatest pyramid is that of Cheops, one of ship in the world is the Great Eastern: she is 680 feet long, 83 feet broad and 60 feet group, situated on a plateau about 137 feet deep, being 28,627 tons burden, 18,915 gross ahove the highest rise in the Nile. Its diand 13,344 net register. The greatest fort- mensions have been reduced by the removal ress, from a strategical point of view is the famous stronghold of Gibralter. It occupies city of Cairo. Its masonry consisted origina rocky peninsula jetting out into the sea, about three miles long and three-quarters of to 82,111,000 feet. The present vertical a mile wide. One central rock rises to the height is 450 feet, against 479 feet originally. height of 1,435 feet above the sea level. Its The total weight of the stone is estimated northern face is almost perpendicular, while at 6,316,000 tons. The largest bell in the

its east side is full of tremendous precipices. On the south it terminates in what is called Europa Point. The west side is less steep than the east, and between its base and the sea is the narrow, almost level span on which the town of Gibralter was built. The fortress is considered impregnable to military assault. The regular garrison in time of peace numbers about seven thousand.

The biggest cavern is the Mammoth Cave in Edmonson county, Ky. It is near Green river, about six miles from Cave City, and twenty-eight from Bowling Green. The cave consists of a succession of irregular chambers, some of which are large, situated on different levels. Some of these are traversed by navigable branches of the subterranean Echo river. Blind fish are found in its waters. The longest tunnel in the world is that of the St. Gothard, on the line of railroad between Lucerne and Milan. The summit of the tunnel is 900 feet below the surface of Andermatt, and 6,000 feet beneath the peak of Kastelhorn of the St. Gothard group. The tunnel is 261/2 feet wide and is 18 feet ten inches from the floor to the crown of the arched roof. It is 91/2 miles long, 15-8 miles longer than the Mount Cenis tunnel. The biggest trees in the world are the mammoth trees of California. One in a grove in Tulare county, according to measurements made by members of the State geological survey, was shown to be 276 feet in height, 108 feet in circumference at base, and 76 feet at a point 12 feet above ground. Some of the trees are 376 feet high and 34 feet in diameter. Some of the largest that have been felled indicate an age of from 2,000 to 2,500 years. The largest library is the Bibliotheque National in Paris, founded by Louis XIV. It contains 1,400,000 volumes, 300,000 pamphlets, 175,000 manuscripts, 300,000 maps and charts, and 150,000 coins and medals. The collection of engravings exceeds 1,300,000, contained in some 10,000 volumes. The portraits number about 100,000. The largest desert is that of Sahara, a vast region of northern Africa, extending from the Atlantic ocean on the west to the Valley of the Nile on the east. The length from east to west is about 3,000 miles, its average breadth about 900 miles, its area about 2,000,000 square miles. Rain falls in torrents in the Sahara at intervals of five, ten, and twenty years. In summer the heat three pyramids forming the Memphis of outer portions to furnish stone for the ally of 89,028,000 cubic feet, and still amounts

world is the great bell of Moscow, at the foot of the Kremlin. Its circumference at the bottom is nearly 68 feet and its height more than 21 feet. In its stoutest part it is 23 inches thick, and its weight has been computed to be 443,722 pounds. It has never been hung.-Philadelphia Bulletin.

The Origin of Thanksgiving.

As if to resist the bitterness and sadness of the failing year, the most genial and kindly of all our festivals occurs at the end of November. Its very name, "Thanksgiving," betrays its pious origin-an origin unmixed with any prior tradition. The great Christian festival of Christmas stretches backward to yule logs and mistletoes, to Scandinavian and Briton heathenry; nor does it lose by the graceful, happy association. But Thanksgiving is purely Puritan. It is the good, warm heart conquering the tough head and ascetic manner of the old pilgrims.

In Elliott's "New England History" you may read that in 1623, after the harvest, Governor Bradstreet sent out a company to shoot game to furnish a dainty feast of rejoicing after the labors of the colony. Having followed the directions of the Governor, and the principle of the excellent Mrs. Glass, they cooked their game and invited Massasoit and some ninety other savages, and all fell to and devoured the feast, thanking God for the good world and the good things in it.

Think of that little shivering band clustered on the bitter edge of the continent, with the future before them almost as dark as the forest behind them, many of them with such long lines of happy memories in Old England flashing across the sea into the gloom of their present position like gleams of ruddy firelight that stream far out of the cheerful chimney into the cold winter night and think of the same festival now, when

our Governors and our President invite millions of people to return thanks to the Great Giver of harvests; and the millions of people obeying, sacrifice hecatombs of turkeys and pumpkins and pour out seas of cider and harmless wine.

It might be dangerous to stake one's reputation upon the assertion that Thanksgiving is a strictly religious feast. It is a day of practical rejoicing in the good things of this world, and there may be people whose mouths are fuller of turkey than their hearts of thanks. But every year the area of the feast enlarges. Every year there are more people who sit down to "groaning boards," as the reporters happily express it, upon occasions of civic festivity.

Dear eld Thanksgiving! Long and long may his hospitable board be spread. Long and long may he stand, benignant at his door, calling in the poor and the weary, the blind and the lame, even as the old Puritans called in Massasoit and ninety other savages. Rich in blessings and reverened in years, may good old Thanksgiving last with the continent, knitting closer the ties of family and friendship; its cheerfulness beaming like the smile of a patriarch; its charity burning like a central fire, warming all the year and lighting up every dark day of care and sorrow.

A Fearful Leap

into the abyss of poverty, over the precipice of shortsightedness is taken by thousands, who might become wealthy, if they availed themselves of their opportunities. Those who write to Hallett & Co., Portland, Maine, will be informed, free, how they can make from \$5 to \$25 a day and upwards. Some have made over \$50 in a day. You can do the work and live at home wherever you are located. Both sexes; all ages. All is new. You are started free. Capital not needed. Now is the time. Better not delay. Every worker can secure a snug little fortune.

HOLIDAY

Reader, we are well aware that you are thinking what shall I present to my Husband, Wife, Father, Mother or thinking what shall I present to my Husband, Wife, Father, Mother or thinking what shall I present to my Husband, Wife, Father, Mother or available, useful and ornamental, than a Life-Size Portrait. Oh, y.s., you will say, Life-Size Portraits of the Kansas Parmer in the Color of the Kansas Parmer in the choice of an India Ink, Crayon, Water Color or Pastel Portrait, your prevader of the Kansas Parmer in the choice of an India Ink, Crayon, Water Color or Pastel Portrait, your power to obtain us a good agent in your neighborhood (provided, of course, portrait pleases you, we will specified and the proper of the State of the Color of Pastel Portrait, your power to obtain us a good agent in your neighborhood (provided, of course, portrait pleases you, we will specified and the proper of the State of the Color of Pastel Portrait, your power to obtain us a good agent in your neighborhood (provided, of course, portrait pleases you, we will specified and the proper of the State Portrait of the Color of Pastel Portrait, your power to obtain us a good agent in your neighborhood (provided, of course, portrait pleases you, we will specified and the proper of the State Portrait of the send of the State Portrait of the send of the State Portrait of the send of the State Portrait of the State Portrait of the send of the State Portrait of the send of the State Portrait of

EMPIRE COPYING CO., 381 Canal St., New York.

THE KANSAS FARMER

Published Every Wednesday, by the

KANSAS FARMER CO.

OFFICE: 273 Kansas Avenue, Topeka, Kas.

H. C. DEMOTTE, - - - President. H. A. HEATH, - - Business Manager. W. A. PEFFER, - - Editor-in-Chief.

The Kansas Farmer, the State Agricultural paper of Kansas, is also the official State paper for publishing all the Stray Notices of the State, and is kept on file in every County Clerk's office.

SUBSCRIPTIONS:

One Copy, one year, - . CLUB RATES:

Five Copies, one year, - - - Eleven Copies, one year, - -

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Advertisers will find the Kansas Farmer the cheapest and best medium published for reaching every part of Kansas. Reasonable rates for unobjectionable advertisements will be made known upon application. Copy of advertise ments intended for the current issue should reach this office not later than Monday.

KANSAS FARMER CO., Topeka, Kas. Address

GREAT SPECIAL OFFER!

The KANSAS FARMER One Year at Bottom-Book Frices, if Ordered Before January 1st, 1887.

ONE DOLLAR.

The KANSAS FARMER is well worth to every farmer ten times its regular subscription price of \$1.50 a year, but in order to give everybody a chance to ge: acquainted with the best farm journal for Western farmers, we have concluded, on account of prevailing low prices and the shortage of certain crops, to offer the paper one year to all who subscribe during 1886 at the "bottom-rock" price of ONE DOLLAR!

The coming Legislature will be composed of ninety Republicans, twentysix Democrats, three Independents, and one Anti-Monopolist.

A week ago yesterday a severe snow storm passed over the northwestern States. It was hard on stock in Dakota and northern Nebraska and Iowa.

Let every granger in Shawnee county turn out on Saturday, December 4th, at 11 a. m., at Odd Fellows Hall, Topeka, to attend the annual banquet to be given at that time. Bring your friends and have a good time.

Mr. W. W. McFadden, of Bourbon county, in writing to renew his subscription to the KANSAS FARMER, says that corn in his locality runs from 20 to 40 bushels to the acre, that stock looks well, feed is plenty, and rain is in de-

Topeka and Fort Scott will be connected directly by railroad this week, which will be a change of great im- in staple lines has been curtailed of tween the capital and southeast Kan- spicuous at Eastern centers, owing to two places and without change of cars. be generally as prompt in payment as is done in a few minutes.

A Religious Nuisance.

The Salvation Army is causing a good deal of trouble in many places by the rude conduct and the noise of its members. They march about the streets beating drums, tamborins and blowing horns, and play on other musical instruments, and they sing and pray as if they were testing their powers to make noise. They do not make any more noise than a brass band or a military band or a campmeeting choir, but they have no respect for what are generally regarded as the proprieties of life. In Topeka they interfere with funeral processions by marching in front pounding on their drums and making noises that at such a time at least are very offensive. Some of them have been arrested because of their persistence in disturbing the peace and quiet of the people. They say they have no respect for the dead; they are trying to save the living.

The writer of this has a severe respect for all holy and sacred things. He respects every form of belief, every form of worship, and he judges no man because of his opinions on any subject. As it appears to his mind there is no worship about this noisy and insolent parade of the streets; it seems impossible to reach a man's heart by beating a drum at him ; indeed, and in brief, this Salvation Army business looks like profanation of the most sacred of all subjects. The Great Master went about quietly; he took no noisy instruments to announce his coming or his presence. He spake as never man spake, but he spake in the common language of the time, and he counseled against all offensive display. He taught good manners, he taught obedience to the laws. While he came not to bring peace but a sword, he did not wield the sword nor beat the accompanying drums. The sword he brought was an emblem of war that the spirit would wage against the flesh, and the friction that would be caused by men's renouncing the ways of the world. Every thing known about the life of the Lowly Nazarene, and of the lives of the apostles is evidence of their quiet and peaceful and orderly demeanor.

There is a worse side to this matter than the mere street parade; for when that is passed, the army is gone. Young men, young women, little boys and girls look on this performance in the name of religion and they learn to think lightly and loosely of things that ought to be sacred with them. It is not pleasant to refined ears to hear persons make light of religion or any of the attributes of Deity. We all feel or ought to feel very great reverence for things pertaining to the Almighty and His manifes tations. Our children look at these noisy processions and they turn about and laugh at the psalm-singing and the drum-beating. To our mind it is sacri-

Special telegrams to Bradstreet's, record rather less activity in the movement of general merchandise, although at Chicago there has been an increasing volume of sales, particularly of dry goods, and in a less noteworthy degree at St. Paul, Minneapolis, Milwaukee take a passenger direct between the tary to that market are not reported to under the new system the same business

desired, and refiners, unable to get satisfactory prices for sugar, are storing their product. At Kansas City there is a fairly active movement of general merchandise, but the total volume is less than that of a fortnight ago.

Reckless Bond-Voting.

People in Kansas seem to be going wild on railroad bonds. It is natural that every community should want railroad facilities; for even though they may not really bring wealth, they bring the appearance of it, which has about the same effect. Railroad companies, knowing the anxiety of the people to have roads near them, play upon their fears by threatening to select other routes or by holding off until public interest is aroused, and thus secure what, in many instances, if left to ordinary business rules, they would never get.

But it is not to discuss the subject, that attention is here called to it. We want to present a fact or two for our readers to think about. The Daily Capital, Saturday morning last, contained a news item of much interest to the people of Kansas on this railroad bond subject. It was to the effect that a short time ago, the State Board of Railroad Commissioners sent a blank to all the County Clerks requesting them to furnish information showing the amount of bonds which have been voted in their counties in aid of railroads during the past year. The letter requested that the amount of county. township and city bonds be given. The Commissioners have received replies from all but eight or ten counties. Nearly nine-tenths of the counties have yoted bonds during the year, and some of them have bonded themselves during the year to the amount of \$400,000 According to the replies thus far, which includes about seventy-five counties, the total amount of county bonds voted the railroads during the year is \$5,253,000; township bonds, \$3,353,600, and city bonds, \$616,500; the total amount issued and delivered during the year in the same counties was as follows: County bonds, \$282,000; township bonds, \$907,600; city bonds, \$122,000.

Topeka Clearing House.

Topeka has a clearing house. Business has grown to such proportions that an institution of this kind seemed necessary. It will certainly be a great convenience. It will economize time and be a great convenience, by simplify-

ing bank exchanges. Persons who deal much with banks understand that much the larger part of the business is done by means of checks and drafts, no money passing in a great many of the transactions. Men pay through the bank; that is, they draw checks on their deposits, and if the debtor has a bank account at the same bank, instead of drawing the money on the check he received from his creditor, he simply has the amount named in the check placed to his credit on the bank

Where there are a considerable number of banks, they collect a great many checks and drafts on one another during the day, and these must all be exand Burlington. The aggregate of sales changed and accounts sottled every day. A clearing house is a room where repreportance to this city and the State. It course by an intervening holiday. The sentatives of the banks meet at a cerwill afford direct communication be- restricted trading has been more con- tain hour daily and make these exchanges and adjust these accounts. sas. Heretofore all roads led to Kansas | the decline in the number of mail or- The Topeka Clearing House Associa- succeeded in appreciably increasing the City, and it was necessary to go there ders received, and to the notable ab- tion is composed of the various banks and make one change, or make three to sence of interior merchants. This is in town, a representative from each of five change at other places in order to reported from St. Louis, Cincinnati, which meet promptly at 11:30 every reach Scott, using up a good deal Philadelphia, New York and Boston. morning and make the exchanges. Unof time. The completion of the Kansas, At New Orleans, also, general trade, der the old regime it took a clerk from Nebraska & Dakota to Topeka changes while fairly satisfactory, is below late each bank a long time to make the all that. A short and pleasant ride will expectations. Country merchants tribuclearings, going from bank to bank;

Kansas Short-Horn Breeders.

The fifth annual convention of the Kansas State Short-horn Breeders' Association will be held in Topeka, on Tuesday, December 14th, the first session to be held in the evening of that date. It is hoped that this will be the largest meeting of Kansas breeders ever held in Kansas. No breeder who expects professional or financial success in this great and important live stock industry of the State will make himself conspicuous by his absence from this important convention of first-class breeders. Every breeder of Short-horns who wishes to keep abreast of the times, know the secrets of success of the business, or wishes to make all the money possible in 1887 will be present at Topeka on the above date.

Cattle and Cornstalks.

Reports are coming in from different parts of the State to the effect that cattle are dying from eating dry cornstalks. This complaint comes up every year, and it is necessary to discuss the subject and warn farmers frequently. Dr. Holcombe, State Veterinarian, who has received a great many communications on the subject, desires to reach as large a circle of readers as possible, and he avails himself of the use of our columns to talk to the farmers of Kansas about this cornstalk trouble and other similar matters. His article ought to be read and studied carefully by every person who has an opportunity to do so. It treats in general of indigestion and accompanying or accruing diseases. The Doctor's article is printed on our first page.

Fish for Kansas.

The United States Fish Commissioner was in Kansas City a few days ago delivering ilsh to Kansas people who had applied—some six hundred of them. The car passed through Topeka on its way to Omaha where the Nebraska people will be supplied. The fish are German carp from one to three inches in length. Each applicant who has a pond or lake into which to put the fish receives twenty young specimens of the finny tribe. The fish hibernate during the winter and the fall is considered the best time to place them in new waters. They thrive well, multiply rapidly, and make an excellent food fish.

The German carp thrives wonderfully well in the Western States, and now thousands of ponds all over the States of Missouri, Iowa, Kansas and Nebraska. that were formerly useless, are full of excellent and valuable food fish. The commission has stocked the great lakes with white fish; it has placed a strong run of shad on the Pacific coast, where they were never known before, and has kept up the shad supply on the Atlantic coast, where the continued fishing would soon kill the supply if nothing was done to propagate the fish. This is in itself a big enterprise. Besides this the commission has stocked streams all over the country with beautiful specimens of the brook and speckled mountain trout, and have introduced a run of salmon in the Hudson which is still an experiment, but it gives every indication of proving a grand success.

The commission was organized fifteen years ago, and in that time it has improving the stock and putting fine food and game fish, such as white fish, carp, trout, salmon and shad, in waters where they were never known before. The work at the beginning was largely one of experiment, but it has succeeded beyond the most sanguine hopes of its projectors.

It is now reported that the late strike at the Chicago packing houses was caused by the ambition of a prominent Knight of Labor who was a candidate for sheriff. He ordered the men out, and refused to obey the order of Mr. Powderly, the Grand Master Workman, to put the men to work again. If this is true, they ought to make short work of the man who betrayed his trust. Ten to fifteen thousand men will lose their old places of employment and several months wages, perhaps, through one man's treachery.

We are in receipt of the new illustrated catalogue of the Pierce Iron Works, containing much useful and instructive matter about artesian, oil and gas wells and machinery used in boring them. It is a very interesting book aside from the advertising matter it contains. Any person interested in the subject would be well paid by an examination of this catalogue which will be sent to any person on request if he will mention this note in the KANSAS FARMER. The Pierce Iron Works advertisement appears in the FARMER this week.

Commencing November 25th, a line of through Pullman buffet sleeping cars was formed between Kansas City and Jacksonville, Fla., via the Gulf route, in connection with the Mem. & Char., E. T., V. & G. and S. F. & W. R. R's. Through cars will leave Kansas City, daily, at 6:45 p. m., going via Memphis. Chattanooga, Atlanta and Macon. This is in addition to the through first class coach, daily, between Kansas City and Bristol, Tenn., via Memphis, Chattanooga and Knoxville. J. E. Lockwood, General Passenger and Ticket Agent, Kansas City.

The reader will find in another column of this issue of the FARMER the prospectus of the Inter Ocean, a paper of justly growing influence in the West. In politics it is Republican, which will be an objection to some persons, but the chief merit of the paper lies in its courageous candor on all the moral reforms of the day. The Inter Ocean is a power in defense of human rights, able in manner, Christian in tone. We regard it as the best representative of progressive journalism in the country. The price of the daily was reduced last spring from five cents to three cents, and Mr. Nixon, the managing editor. informs us that the "Reduction in price gave a great boom to the circulation. So greatly has it increased that more money is now received for circulation than before the reduction." As a family paper, the Weekly Inter Ocean has no superior in this or any other country.

From the Controller's report it is learned that 3,580 national banks have been organized in all, of which 2,858 are now in operation; of these 174 have been organized during the past year, with a capital of \$21,000,000; circulations, \$2,900,000. Twenty-four banks went into voluntary liquidation during the year; one ceased to exist by expiration of charter, and eight failed. Since the beginning of the system in 1863, only 112 national banks have failed; of these thirty-six paid their creditors in full, and twenty-eight have paid interest.

Over 90 per cent. of all national bank stocks is held by residents of the State in which the bank is located; more than 91 per cent. is held by naturalized persons, and over 96 per cent. of the number of shareholders are naturalized persons. The total number of shareholders is 223,000; the total number of shares over 700,000. The effect of the reduction of the public debt and the high premi im on bonds and upon the volume of national bank circulation is and twenty-eight have paid interest.

very fully illustrated in the report. The | by careful management. If we can feed out contraction in national bank circulation during the year exceeds \$56,000,000.

Who Defeated the Amendment? Kansas Farmer:

There seems to be some question as to who defeated the amendment. Let me tell you who did it. It was the poor Kansas farmer in the Western dug out and sod house. It was the Kansas farmer in the East. It was the mechanic in every part of the State. It was the Knights of Labor, anti-monopolist and Granger. It was all these combined. It vas, in short, the laboring men in Kansas who defeated the amendment.

The amendment was very cunningly framed by lawyers, and the cunning of the lawyers was used, too, at the election. Had the proposition been submitted alone the majority against it would not be expressed with less than six figures. Thousands of tickets were in the field which were votes for the amendment if not changed by the voter. Thousands of others were not votes at all unless made so by the voter.

In my own township I don't think the amendment had one vote, yet through ignorance and prepared ballots the majority against the amendment was not great.

No one will ask, I think, why the amendment was defeated. It is hard work to convince a farmer who is obliged to support a family on an income of \$250 to \$300 a year that the Justices of the Superior Court should have their salaries raised from \$3,000 to \$5,000 a year.

The KANSAS FARMER is quite right in suggesting that the additional Justices will be provided if the salaries remain as now.

The FARMER has been right on this as on other questions affecting the people, and I can wish the farmers of Kansas no better than that each should have the KANSAS FARMER to read. M. J. WELLS.

Woodston, Rooks county, Kansas.

Feeding for Manure.

Kansas Farmer:

Feeding the stock simply for the profit in feeding is not all that can be secured if proper pains are taken. The keeping up of the fertility of the soil is of as much importance as realizing a profit from the stock. And while we may not, while the soil is fresh and new, fully realize the importance of making and saving all the manuro possible, gradually the importance of this fact will become apparent. We usually expect in feeding grain and grass raised on the farm, over and above what we would derive if sold without feeding, and if, in addition, we are able to secure a good supply of manure that can be applied to the soil to increase the fertility and can increase the pro fits that much.

In sections of the country where, by con tinual cropping, the fertility has gradually decreased until it fails to return us a profit such as should be received, or where the soil is naturally light and thin, the manure made and saved is valued sufficiently to make the feeding profitable if the regular market price can be realized for the feed.

Here in the west this fact is not suffi ciently appreciated as virgin soil is naturally rich, and with fair preparation and good cultivation profitable crops can generally be secured. We feed stock principally because we can realize a better price for grain and grass than if we sell as it is raised. We condense the farm products and receive a better price. But as the country grows older we are learning to appreciate the value of manue more fully and its value is being taken into consideration.

Where a variety of crops are raised and different kinds of stock kept we can, with good management, use everything raised on the farm to a good advantage.

What is not eaten up clean can be utilized

the products of the farm to stock and secure a larger profit than selling without and at the same time realize a good quantity of manure we are doing that much better than if we feed with profit and have the manure, as is too often done, or save the manure and come out even in stock feeding. Even at present prices, which for stock is very low, with young, thrifty stock, good shelter and careful, regular feeding, it is easily possible to secure a profit, and with a small amount of additional labor we can save the manure, and this will aid materially not only to increase our profits but also to build up the N. J. SHEPHERD.

Eldon, Miller county, Missouri.

Two Rider from Lawrence.

Kansas Farmer:

No one public highway in Kansas is so replete with history, of interest to a Kansan, as the old California road west from Lawrence. In the 50's, for the first thirty miles to the little settlement of Topeka, it was a wagon road full of ruts and "chuckholes." Its course lay over hills and valleys, which after rains were almost impassible. The old government wagons, with their immense side-boards, drawn by eight or ten spans of mules, with their drivers and riders, toiled noisily along. Anon a horseman, booted and spurred, with bowie knife and pistols at his hilt, bade you a gruff "Good morning." Later on the old road echoed to the tramp of men and the creak, creak of cannon, and beheld its share of the bloody guerrilla warfare through which the Territory passed to emerge a free State.

Then a long line of wagons, filled with emigrants to settle the fair promised land rolled, ever increasing, wearily along. Today no ride could be more suggestive of thought than one over this old California trail from Lawrence to Topeka. You ride in your side-bar buggy now behind a threeminute horse if you wish, for the road is smooth, its chuck-holes filled up, all the little streams you will cross culverted or bridged. Hedges and stone fences on either side accompany you the entire journey Fine farm houses, with carriage drives leading to the front door, lawns covered with shrubbery, and immense barns greet you on every hand. Often the little log house which the owner first occupied stands near its present pretentious successor, monuments of his perils and success. As far as the eye can reach hill rises succeeding hill until they merge into the horizon. To you. left lies the Wakarusaa valley; upon your right, at a distance, the Kaw river flows sluggishly along. School and farm houses are dotted all over this fair prospect, nestling in valley and upon hill-top. Hay-stacks, around which fat cattle and horses are lazily roaming, are upon every hill-side and every farm. All this in twenty-five years? Yes, your ride west to Topeka from Lawrence twenty-five years ago was a wild and lonely one over a wretched road. To-day it is a pleasant drive through a lany of plenty and content. Oh, wonderful, happy, temperate Kansas. O. B.

Book Notices.

EARTHQUAKES .- Though the earthquake shocks at Charleston gave occasion for a good deal of speculation on the causes of seismic phenomena, an authoritative and generally intelligible summary of the conclusions of geologic science upon that interesting subject is still needed. This task is now to be performed by Major J. W. Powell, Director of the United States Geological Survey. in an article which is to appear in *The Forum* for December.

HARPER'S MAGAZINE .- For many years the December issues of Harper's Magazine have been distinguished by an unusual wealth of choice reading and pictures, with a special emphasis upon Christmas subjects. Rich as have been the previous numbers, the

C. D. Warner, we are regaled with six short stories (four of them beautifully illustrated), and five illustrated poems. Of the abundant cuts, twenty-five occupy full pages, and four are printed separately on plate paper. Notwithstanding the unparalleled richness of this number, we are assured by the publishers that it is only a Christmas form of the exalted standard which will be uniformly maintained throughout the year; and the magnificent prospectus detailing the coming treasures gives a splendid promise to the volume begun by this number.

THE INTER OCEAN

OF * CHICAGO *

In Circulation and Political influence is the

Leading Republican Newspaper

IN THE NORTHWEST.

THE INTER OCEAN has from the beginning been the defender of home institutions and American ideas. It is the advocate of equal rights for all before the law, of protection to American labor, and of the idea that America is for Americans-not necessarily Americans by birth, but true citizens of the Republic. It believes in the West and Western men, holds to the idea that the future seat of empire will be in the Mississippi Valley, and is bold and aggressive in its opposition to the unholy alliance between the money-changers of New York City and the States lately in rebellion.

THE INTER OCEAN is earnestly in favor of the Republican party because it believes the principles of that party are correct, and that, honestly carried out, they will best protect the rights and advance the interests of the whole people. It is not, however, a blind follower, but is always ready to denounce Republican wrong-doing, either in high or low places.

denounce Republican wrong-doing, either in high or low places.

THE INTER OCEAN has always maintained that the Nation is under an obligation to the soldiers of the late war, who jeopardized their lives to protect it from armed treason, which it can never repey, and, consequently, has advocated the establishment of Soldiers' Homes and the enactment of such pension laws as would leave no disabled veteran in want.

As a Newspaper THE INTER OCEAN is not excelled in the United States. Aside from the service of the Associated Press, in which it holds a membership, it keeps a large body of Special Correspondents, both in this country and in the Old World, and has SPECIAL LEASED TELEGRAPHIC WIRES connecting its Chicago office with WASH-INGTON and NEW YORK, in both of which cities it has SPECIAL NEWS BUREAUS and maintains Branch Offices.

The Daily Inter Ocean

Is published every day in the year.

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Borticulture.

TESTS OF HARDINESS OF FRUIT TREES.

Address of M. Vincent, before the Iowa Horticultural Society.

This subject, while of the most vital importance to the horticulturist, is at the same time one of the most difficult subjects on which to obtain definite data from which to reason in forming our theories.

There are so many features entering into the problem, that the student must study long, hard and faithfully, if he would know anything in regard to it, and in the end he will probably say he knows nothing, or almost nothing, about the real points necessary to constitute a hardy tree, i. e., be unable to point out from habit and appearance those trees that are, or are not, hardy. But in this world, as no real good has ever originated but as the direct result of independent thought, so I believe that no honest, earnest thought was ever conceived that did not benefit the thinker and oftentimes the whole world.

In the discussion of this question we have to deal with the structure of the tree, with the influences brought to bear on it to produce in it the peculiarities which it now possesses. Trees, the same as human beings, only to a much greater degree, are victims of circumstance; their surroundings make them what they are; they give to the Russian apple, by having grown for centuries in a severe climate, the power to resist great and sudden changes in temperature. A plant grown in a dry climate has thick, fleshy leaves with few stomata for the escape of moisture; the genus cacti is a good example of this. In a warm, moist climate, the leaves are generally large, slender and fragile, giving the largest possible surface for the escape of moisture. Climate is by far the most unruly factor entering into this problem, and the horticulturist often finds himself duped by it. As a starting point for our study, let us begin with the starting of growth in the spring. The first thing that troubles the fruit-grower in the spring is the habit some trees have of starting their growth very early, thereby increasing the danger of loss by late frosts. This tendency to early growth is a weak point in many varieties of trees; the Willow Twig is an example of this, for it often opens its blossoms with the first approach of spring, and before it has developed enough growth of leaf to sufficiently protect them from the late frosts, hence severe loss is often the result. The careful fruit-grower will do well to study carefully this point ere he make his selection for an orchard, and he must be careful to get trees or plants such as are not too easily influenced by quick changes of temperature, so they will not force growth too early. After the danger of loss by late frosts is past, all goes well for a time.

When the warm summer rains and hot sunshine are producing a rapid, and oftentimes an unhealthy, growth in the tree, there is a great liability to lodgment in its tissue of germs of disease, everywhere prevalent at this time of the year. About this time we also have our heaviest storms, often so severe as to destroy most of the foliage of the trees, breaking limbs, loosening roots, etc. These things greatly assist are locked in the frozen ground and canthe disease germs to find a lodgment, not supply the additional moisture deby having opened their tissue for their manded, and the result is that the parts ingress, and at the same time having exposed to the sun are seriously in-

orchards. That blight is communicable develop wholly in one season, not requiring two seasons for its development, as has often been supposed; this is proven by the fact that a block of seedlings, adjoining a crab orchard that had blighted, were severely injured by the blight shortly after the severest storm of the season had passed, and the damage was almost wholly confined to those seedlings in the track of the storm on leaward side of the crab orchard, while seedlings on the windward side of the same orchard, and one-fourth mile distant, wholly escaped the disease. The question of liability to blight in some varieties while other varieties are almost if not entirely free from it, is one which must of necessity be discussed in this connection, for a tree is not perfectly hardy unless it be able to withstand all the vicissitudes of climate where it is planted; for if it cannot do this, it is not hardy for that particular locality. Some varieties of trees are much more liable to blight than are others, and such trees I believe resist the disease in the same manner that many persons do, viz.: by being so healthy that they may resist efforts to effect a lodgement of the disease in their tissue.

It often happens that the last of July and August are dry and hot, followed by warm rains in September. The hardy tree should be able to resist the tendency to growth at this time, for all growth made after the 20th of August must of necessity be soft and succulent, for it cannot have time to ripen perfectly, and consequently it is easily effected by our early frosts, as was the case this year, when we had a hard frost about September 3d, and another about October 5th, the time between the cold spells being warm and favorable to growth. It is my opinion that more damage was done to trees in this part of the State by these two frosts than will be done the balance of the winter. While in Dakota last fall I saw white willow hedges that were wholly black in the canbium layer from the effect of these frosts. The Miner plum were also seriously injured, while the Duchess. Wealthy and Whitney's No. 20 apples were to all appearances in perfect condition; this I think is largely owing to the fact that these varieties ripen their woods early and very thoroughly.

Last, but not least of the vicissitudes to which a tree is exposed, is to be found in our hot winter suns. I am strongly of the opinion that we are more indebted to our hot winter suns of the latter part of the winter, for losses in our orchards and nurseries than we are to all the blizzards that ever visited the

There can be but little evaporation, comparatively, from the surface of a tree in which by far the larger portion of its moisture is congealed. On the other hand, after one of our cold spells, when the sun comes out warm, and the rays strike the trees and are reflected back to it from the snow surrounding it, the side on which the sun shines is thawed out, and during these times the evaporation from the trees is much greater, while at the same time the roots

fermentation, and it is just this state to a decision as to which trees are hardy of things in which such disease as the and which are not. (And here let it be blight revels, often ruining whole remembered when the term hardy is used it is in a comparative sense, and in from tree to tree does not admit of no case must it be construed to have question; and another point—it may an absolute meaning.) To this question we answer, yes! First in order in naming these characteristics comes the tendency toward making a late start in the spring, as such a tree is not quickly influenced by sudden changes in the temperature. Second, much may be learned from the character of the leaf of the tree; a thick, solid, heavy leaf is, we think, a necessary characteristic of a hardy tree, for as the leaf is the place where all the food of the tree is assimilated, anything that deranges this organ has much the same effect on a tree that the dyspepsia does on a man. On the underside of an apple leaf there are approximately 160,000 stomata or breathing pores. This number varies greatly, and it is possible that something may be learned as to the relation of the number and size of these stomatas to the hardy tree. Another characteristic of a good leaf, is that the underside is thickly covered with short hairs surrounding the stomata and protecting them from sudden changes in the temperature, and also making it more difficult for the germs of disease to find an entrance to the tissue, than they would were it not for this wise provision of nature.

Next to the leaf, the bark deserves attention, for it is through this medium that the health of the tree is affected during the greater portion of the year. The bark should be thick and strong, having a comparatively small number of stomata, so that the evaporation may not be too great, and at the same time there should be enough of them so that the evaporation may be sufficient to prevent the forcing of the growing points at a time when it is undesirable that this should be done. I do not know that this point has been worked to any extent, and I only give it to stimulate investigation. There are so many different things entering into this problem that some of them must rest till the more important points are thoroughly investigated.

There is still another point, and this also one on which we have as yet had little light, but at the same time it deserves much attention. It is the study of the plant cell and its contents. I have found by microscopic examination that the wood of many varieties of our apples contains a greater amount of starch than do other varieties; also that those varieties having a relatively determinate habit of growth, store their cells much better and much nearer the terminal bud than do those of an indeterminate habit of growth. Again, while at the Iowa Agricultural College last winter I was struck by the amount and variety of crystals at the base of the terminal bud of many varieties, and consulted Dr. Andrew about them; he kindly took the pains to test several twigs, each of several varieties, and he decided that there was an acid present in each, but in larger quantities in some varieties than in others; it was also noticed that those varieties that gave the best tests for acids were the

orated; the result is stagnation and characteristics in trees that will lead us hardiest, being such as the Duchess and the best of the Russians, while the Willow Twig and the Ben Davis gave but feeble tests. Here is, I think, a broad field for study, in which much may be learned, and it is one in which I shall work as fast and as hard as circumstances will permit.

Much has been said of late in our papers about "inherent hardiness" of some of our trees. I don't know fully what is meant by this term. If it is used in the sense that the "inherent hardy" tree is capable of so completely storing its cells with those elements necessary to sustain it through all the inclemencies of our severe winters, then I think some of our trees are "inherently hardy." Otherwise I do not

In this paper I have not been able to present so complete a review of the subject as last spring I hoped to have been able to do at this time. Owing to circumstances for which no one is at fault, I have been unable to give the information I had hoped for, but I have tried to do my best under the conditions, and I hope that all will feel free to discuss any or all points in this paper fully, for it is by an exchange of ideas that we receive our greatest benefit.

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made it impossible for the tree to resist the attack. After severe storms, when the tree is weakened, there is often more sap thrown into the branches and leaves than can be assimilated or evapble wery pertinently asked, are there any leaves than can be assimilated or evapble with the sun are seriously injured, often beyond recovery. For this reason I should recommend that nursery stock reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery. For this reason I should recommend that nursery injured, often beyond recovery injured, of the beyond r

The Poultry Hard.

Fancy Poultry.

There is no half-way house in fancy poultry-raising. If you engage in the keeping of pure breeds you must either be at the top or you will be left behind. And you must show your birds at the fairs, keep them in the best of form. and be prepared for an inspection of your yards by visitors at any time. Woe, then, to you, if you are caught with inferiors, for your reputation will be gone forever. Can you afford to sell eggs at \$1.00 per dozen, and make the business pay? You must purchase the best stock found, and duplicate all orders that do not give satisfaction. Your fences must be good, and you must keep the houses clean and feed intelligently, or you may not get any eggs at all. It will cost you twenty-five cents to pack. and deliver the eggs at the express office, which leaves you seventy-five cents out of one dollar. If you duplicate an order, which often happens, you spend another twenty-five cents, and get only fifty cents clear for the two sittings, or twenty-five cents per dozen. And at the period when there is a demand for fancy eggs the common ones will be selling for thirty-five cents per dozen. One dollar sittings will not pay.—Farm and Garden.

Fowl Flesh.

The Turkey.-The flesh of the turkey is somewhat more dense of fibre and more alkalescent and substantial than that of the chicken, but it is reckoned nourishing and restorative. Age produces a similar effect as in the chicken, whence the turkey, after a certain period, is good for little, except stewed. Guinea-fowls are not so white of flesh as the common, but more inclined to the pheasant color; in quality short and savory, like the flesh of the pheasant. They are very prolific, and their eggs nourishing and good. The Duck.-The flesh of the duck, of a savory and somewhat stimulant nature, is said to afford a preferable nourisoment to that of the goose, being not so gross and more easily digested; and that of the wild duck is reckoned still more easy of digestion than the tame, although more savory. The Goose.—The whole anserine or goose tribe, of which there is a great variety, are held to afford a food highly stimulant, of a strong flavor and viscous quality, and of a putrescent tendency. The flesh of the tame goose is more tender than that of the wild, but generally it is a diet best adapted to good stomachs and powerful digestion, and should be sparingly used by the sedentary and weak, or by persons subject to cutaneous diseases,-Mow-

Feeding Condiments.

In the endeavor to induce the hens to lay, many poultrymen resort to forcing processes, and feed in a manner sometimes unnatural. Red pepper, sulphur, saffron, ginger, and all kinds of egg foods, are resorted to, and if there is any virtue in such there is no excuse for anything but the best results. But it may well be stated that while such articles may serve as stimulants, and temporarily invigorate the hens, they are of no value whatever to healthy fowls. The hens, in their natural condition, simply seek a variety of food in order to derive those elements that are essential to the formation of the eggs, and to supply body waste, and the best tonics consist of wholesome food. When egg foods and condition powders are given, the benefit from such is due more to the fact that they supply something which the poultryman neglects to

give, such as sait, for instance, rather than to any substance contained that induces laying. The hen only lays when she is capable of supplying the materials for forming an egg, and red pepper contributes but a small proportion of any substance that is necessary. But there are those who do find such things beneficial at times, but it is when the hens are debilitated and require stimulants. Even when the hens are urged to lay, should their appetites be increased by such means, the eggs are seldom fertilized, and are almost worthless for hatching purposes. There is no necessity for treating fowls differently from other stock, but they should receive all the care necessary for their thrift and prosperity.-Farm and Gar-

Poultry Notes.

Forcing pullets is said to produce leg weakness. Iron in the drinking water will counteract this effect. There is much more profit in a pullet that will lay at five months than one that is ready to begin work at nine. Give them a good variety and all they will eat.

A chicken house, to be good needs not to be expensive; excavate two feet, make the house four feet high in the back and seven in the front. This will give the roof such a pitch that it may be made of feather-edged boards . without breaking. Bank up the back to the roof and the sides as high as you can. Make the roosts all on a level close to the ground. Line with tar paper or manilla, put one or two windows in the south, or if the cracks be well battened, the paper may be dispensed with.

My chicks remain in the brooder eight or ten weeks, according to the season and weather. I then put them in houses, fifty in each house. These houses are nine feet long, three and one-half feet wide, three feet high in front and two feet high at the back. The roof is made tight with standard roofing. The houses are placed where the chicks can run at large-some among my small fruit-bushes and others in the potato fields, and they save the time and expense of putting on Paris green to kill the bugs, for the chickens destroy them all. When the pullets are about ready to lay they are put in the yard and there remain until sold for breeding or the market.

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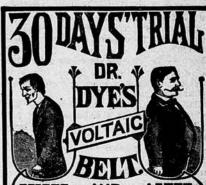


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THE MARKETS

By Telegraph, November 29, 1886. LIVE STOCK MARKETS.

St. Louis.

CATTLE-Receipts 1,058, shipments 400. Market steady on all kinds. Choice heavy native steers 4 30a4 75, fair to good shipping steers 3 50a 4 25, butchers steers 2 90a4 10, feeders 2 50a3 15, stockers 1 90a2 15, Texas and Indian 1 75a3 75.

HOGS-Receipts 5 300, shipments none. Market active and 10c higher on heavy grades, and about steady on light; all sold. Butchers selections 4 00 a4 15, packing 8 80a4 05, Yorkers 3 65a8 85, pigs 2 60a3 60.

SHEEP--Receipts 1,320, shipments 400. Move ment slow and market steady. Common to fair 1 75a4 00.

Chicago.

The Drovers' Journal reports:

CATTLE-Receipts 10,000, shipments 3,000, Market weak and 10a15c lower. Shipping steers, 950 to 1,500 lbs., 3 30a5 00; stockers and feeders 2 10a 3 45; through Texas cattle, cows 2 00a2 60, steers 3 00a3 60,

HOGS-Receipts 40,000, shipments 10,000. Market strong and 10c higher. Rough and mixed 8 65a3 95, packing and shipping 3 90a4 10, light 3 25a3 90, skips 2 20a3 25.

SHEEP-Receipts 5,000, shipments 1,000. Market steady for best at 3 50, common dull at 2 00a 3 00, westerns 2 25a3 75, Texans 2 00a2 90, lambs

Kansas City.

CATTLE-There were but two loads of corn-fed cattle on the forenoon market, which was not enough to establish quotations or invite outside buyers to enter the market. Rates nominally steady. Prices ranged 2 70a3 50.

HOGS-The receipts were moderate, and the total supply was short of 10,000. A quick, active, strong market was had from the local packers. Toppy hogs were scarce, and while the market was higher, top prices were no higher than Sat-urday. A few loads sold at 3 90, but they were not so good as Saturday. Packers paid 3 90 to day and to bring 3 90 Saturday required extra heavy shipping stock.

SHEEP-There was a liberal supply of sheep. stale and fresh included, but they were all stockers and low grades. Something over 400-pound stockers sold at 1 30 per cwt. to yard traders. The feeling on mutton grades was strong. Stockers 1 25a2 00, feeders 2 25a2 75, common to fair muttons 2 25a2 60, good to choice 2 75a3 25, common to prime lambs 2 00a3 50.

PRODUCE MARKETS.

New York.

WHEAT-Higher and more active. Ungraded red, 80a90c; No. 2 red, November, nominal; December, 85% a86% c.

CORN-Higher, closing firm. Ungraded, 443/48 471/4C.

St. Louis.

WHEAT-No. 2 red, cash, 77c; December, 76%a CORN-No, 2 mixed cash, 851/4c; December, 851/4

a851/60. OATS--No. 2 mixed, cash, 261/4263/c.

RYE-Easy at 51%c bid. BARLEY-Dull and unchanged.

Chicago.

The trading in wheat to-day was larger in volume and attended with more vim than has been shown before in three months. The market opened %a3/c higher than at the close Saturday, on firm foreign advices and a good export movement. The destruction of 740,000 bushels of wheat at Duluth had a tendency to make prices firm at the opening. The visible supply showed an increase of about 10,000 bushels, the wheat damaged at Duluth being deducted from the total, During the trading in the afternoon the buying by shorts was large, and aided in forcing the advance.

Corn was rather quiet during most of the session. The visible supply showed an unusually large decrease, 1,159,000 bushels, but the expectation of large arrivals checked any advance until the advance in wheat occurred, when more life was shown in trading, and an advance of 1/2 cover the closing figures of Saturday was scored.

Cash quotations were as follows: WHEAT-No. 2 spring, 76%c; No. 3 spring, 69a

70c; No. 2 red, 77%c. CORN—No. 2, 37½c. OATS - No. 2, 27c.

RYE-No. 2, 53c.

BARLEY-No. 2, 53c. FLAX SEED-No. 1, 921/48921/2c.

Kansas City.

WHEAT-No. 2 red winter, cash, 1 car at 63c; November, 68c bid, 64c asked. No. 2 soft winter, cash, 691/c bid special, 693/c asked regular,

CORN-No. 2, cash, 311/4c bid, 32c asked; November, 1 car at 31%c, 1 car at 31%c.

OATS-No offerings..

RYE-No offerings.

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FOR EXCHANGE

A Residence in Seneca, Kas., and two Business Lots and two hesidences in Ottawa, Kas. Will take Cattle, Sheep or Merchandise for all or part SPENCER BROS. Russell, Kansas. of above.

CREAT BLUE RIBBON COUNTY OF CASTERN KANSAS. Jefferson county don't owe a dollar. Price List of Farms, etc., free. Address Metzger & Insley, Uskaloosa, has. Cut this out.

Do You Want a Home?

Then write to WM. J. ESTILL & CO., Medicine Lodge, Kas. They have for sale over one hundred tracts of Choice Land in Barber county, Kansas, suitable for farm or ranches. Par ments cash, of terms to suit purchaser. Those desiring to locate in the best part of Kansas should write at once. Particulars free. City property—addition of 80 acres to Medicine Lodge—in lots 50x150 feet, at low cash prices.

🛎 Jackson County Federal

This paper, published at Holton, Kansas, is situated so that it will have a bonanza of advertising for surrounding cities. By the Rock Island railroad it is between Topeka and St. Joseph, and in the only town of any importance. It has direct railroad connection with Leavenworth, Atchison and Kansas City. The Fideral circulates generally to all postoffices where Jackson county people get their mail, in and around Jackson county homes than any other paper published anywhere. Advertisers who read the FARMER will do well to make a note this.

CITY HOTEL,:-: CHICAGO,

State Street, Corner Sixteenth Street.

Rate \$1.50 Per Day

Convenient to Stock Shippers. A good Family Hotel.

Table and Rooms first-class. Statestreet, Archer avenue or L. S. & M. S. Dummy pass the house to all parts of the city and depots.

W. F. ORCUTT, Proprietor.

COMPOUND FUEL.

SOLID FUEL can be cheaply made out of Weeds, Grass, Straw, Cornstalks, Paper, and other porous or inflammable materials, green, wet, or dry. This fuel made from cheap and waste materials can be used in place of any other fuel. The Liquid Compound is highly inflammable and will burn any green er wet vegetation, or ignite wet coal. It is not expensive or dangerous to use, and as a five kindler has no equal in economy and effect. The solid fuel partakes of the nature of the liquid, and in manufacturing it all waste combustible materials can be utilized, and the most economical fuel in existence can be made in any country where the sun shines and grass grows—better than Wood or Cosl and in many places much cheaper than either. Bights for sale by J. N. OWEN, Butler, Mo., Inventor and Proprietor.

Ho! for Morton County

The Southwest Corner County, and BEST County in Kansas!

Fertile soil, fine climate, pure water-never failing, cheap homes, health unsurpassed, and just the place you want to locate in.

For descriptive particulars, write to PIERCE & They are the oldest and best known firm in the county, and business entrusted to their care will receive prompt attention.

Correspondence solicited.

STRAYED.

From the premises of the subscriber, at No. 28 Monroe street, Topeka, on or about the 15th of September, 1886, a light bay Mare Pony, all her feet white, nose and face white, mane roached, a few white hairs close together on left side of neck. Pony was 5 years old, welghs about 650 pounds, was perfectly genile. Suitable reward will be given for the pony or information leading to its recovery.

J. H. KELLY.

No. 26 Monroe street, Topeka, Kas.

Kansas City Stock Yards,

KANSAS CITY, MISSOURI,

Are by far the most commodious and best appointed in the Missouri Valley, with ample capacity for feeding, weighing and shipping cattle, hogs, sheep, horses and mules. No yards are better watered and in none is there a better system of drainage.

Higher Prices are Realized

Here than in the markets East. All the roads running into Kansas City have direct connection with the Yards which thus afford the best accommodations for stock coming from the great grazing grounds of Texas, Colorado, New Mexico and Kansas, and also for stock destined for Eastern markets

kets.

The business of the Yards is done systematically, and with the utmost promptness, so that there is no delay and no clashing, and stockmen have found here, and will continue to find, that they get all their stock is worth, with the least possible delay.

Kansas City Stock Yards Company Horse and Mule Market.

FRANK. E. SHORT.

CAPT. W. S. TOUGH.

F. E. SHORT & CO.,

Managers.

This company has established in connection with the Yards an extensive Horse and Mule Market, known as the KANSAS CITY STOCK YARDS COMPANY HORSE AND MULE MARKET. Have always on hand a large stock of all grades of Horses and Mules, which are bought and sold on commission, by the head or in carload lots.

In connection with the Sales Market are large feed stables and pens, where all stock will receive the heaf of carse.

best of care.

Special attention given to receiving and forwarding.

The facilities for handling this kind of stock are unsurpassed at any stable in this country.

Consignments are solicited, with the guarantee that prompt settlements will be made when stock

General Manager.

C. F. MORSE.

E. E. RICHARDSON, Secretary and Treasurer.

H. P. CHILD superintendent.

CHICAGO.

KANSAS CITY.

ST. LOUIS.

James H. Campbell & Co., LIVE STOCK COMMISSION MERCHANTS.

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ANDY J. SNIDER & CO., 🖫 CAMPBELL, LANCASTER & CO.,

Of CHICAGO, KANSAS CITY, ST. LOUIS.

Unequaled facilities for handling consignments of Stockin either of the above cities. Correspondence invited. Market reports furnished free. Refers to Publishers Kansas Farmer.

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The National Mutual Fire Insurance Co.,

SALINA, : KANSAS,

MAKES A SPECIALTY OF INSURING FARM BUILDINGS AND STOCK Against loss by Fire, Lightning, Tornadoes, Cyclones and Wind Storms.

Premium Notes in Force and Other Assets, \$125.000.

Your Insurance solicited. Correspondence invited. Agents Wanted. [Mention Kansas Farmer.]

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Kansas Farmers' Fire Insurance Company,

ABILENE, :: KANSAS, Insures Farm Property, Live Stock and Detached Dwellings

Against Fire, Tornadoes, Cyclones and Wind Storms.

CAPITAL, FULL PAID, : : : : : \$50,000.

The last report of the Insurance Department of this State shows the KANSAS FARMERS' FIRE INSUR-ANCE COMPANY has more assets for every one hundred dollars at risk than any other company doing bus-ANCE COMPANY has more assets for every one nunared dollars at risk than any other company doing bus-iness in this State, viz.:

The Kansas Farmers has \$1.00 to pay \$18.00 at risk; the Home, of New York, \$1.00 to pay \$46.00; the Con-tinental, of New York, \$1.00 to pay \$80.00; the German, of Freeport, Ill., \$1.00 to pay \$70.00, the Burlington of Iowa, \$1.00 to pay \$78.00, and the State of Iowa has \$1.00 to pay \$79.00 at risk.

W. H. BARNES, Pres't.
J. H. MITCHELL, Secretary.
GEN. J. C. CALDWELL, Manager.

M. C. REVILLE, Vice Pres't. C. C. WOODS, Treasurer.

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TAYLOR, Richfield, (county seat), Morton Co., Insures Live Stock Against Death

BY DISEASE OR ACCIDENT

Incorporated under and complied with all the laws of the State of Kansas, furnished bonds as required, and received certificate of authority from Insurance Commissioner to do business. Your Insurance solicited. Agents wanted. Mention Kansas Farmer.

WHETHER YOU WANT A ANDOBORG

BEETHOVEN PIANO-ORGAN GO.,
Washington, Warren Co., New Jersey,

THE STRAY LIST.

HOW TO POST A STRAY.

THE FEES, FINES AND PENALTIES FOR NOT POST-

THE FEES, FINES AND PENALTIES FOR NOT POSTING

BY AN ACT of the Legislature, approved February
27, 1866, 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 appraisement, 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 same and residence of the taker-up, to
the Kansas Farmer together with the sum of fity
cents for each animal contained in said notice.
And such natice 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 \$60.00 is affixed to any failure of a Justice of
the Farmer for a violation of this law.

Broken animals can be taken up at any time in the

year.
Unbroken animals can only baken up between the 1st day of Nevember and to 1st day of April, except when found in the lawful enclosure of the

taker-up,
No persons, except citizens and householders can

care the let day of Nevember and it at day of April, except when found in the lawful enclosure of the taker-up.

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

If an animal liable to be taken up, 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 an estray, must immediately advertise the same by posting three written notices in as many places in the townthip, 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 it to be driven there, that he has avertised it of the to be driven there, that he has avertised it of the to be driven there, that he has avertised of the same and its cash value. He shall also give a bond to the State of double the value of such stray.

The Justice of the Peace shall within twenty days from the time such stray was taken up (ten days after posting), make out and return to the County Clerk, a certified copy of he 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 my Justice of the Peace of the county, having first notified the taker-up of the time when, and the Justice, and upon the payment of all charges and costs. If the owner of a stray falls to prove ownership within twelve months after the time of taking, a complete title shall vest in the taker-up; said appraisers, or two of them, shall ails determine the cost of keeping, and the benefits the taker-up may have had, and report the same to the Justice.

They shall also d

Strays for week ending Nov. 17, '86.

Cherokee county--L. R. McNutt, clerk.
PONY-Taken up by M. W. McDonald, of Garden
p., November 4, 1886, one bay spotted pony, 14% hands
igh, about 12 years old, branded H on left hip; vald 4 at 10 \$12. Rooks county---J. T. Smith, clerk.

PONY—Taken up by M. M. McOrmack, of Lanark p. (P. O. Kirwin), one black Texas pony, 3 years old bout 4 feet 6 inches high, branded T with above it n left shoulder and Spanish brand on left thigh, thite face with black spots in center.

Morris county—G. E. Irvin, clerk.

HEIFER—Taken up by Frederick Kezer, of Neosho
tp., October 8, 1886, one red helfer, about 1 year old,
no marks or brands; valued at \$12.

Anderson county--A. D. McFadden, clerk. PONY—Taken up by Allen Johnson, of Ozark tp., November 9, 1886, one white mare pony, 7 years old, unknown brand on left hip. STEER—Taken up by A. R. Smith, of Putnam tp., November 3, 1886, one red and white yearling steer; valued at \$12.50.

Marshall county--J. F. Wright, clerk. MARE—Taken up by David Smith, of Murray tp., November 5, 1886, one fron gray mare colt, 2 or 3 years old; valued at \$90.

Finney County--A. H. Burtis, clerk HORSE—Taken up by J. M. Tracey. of Sherlock October 19, 1886, one black horse, 4 feet 8 irches hi right hind foot white, scar on right fore foot, brands; valued at \$35.

Shawnee county--D. N. Burdge, clerk.

Shawnee county--D. N. Burdge, clerk.

STEER-Taken up by George W. Gowell, of Monmouth pp., (P. O. Bichland), one red and white steer.

2 vears old, branded O on right hip, under bit in right ear: valued at \$25.

COW-Taken up by Warner Lutz, of Monmouth tp., (P. O. Bichland), one white and red cow, 8 years old, two silts in right ear: valued at \$23.

STEER-Taken up by P. J. Spreng, of Mission tp., (P. O. Topeka), one roan yearling steer, n) marks or brands; valued at \$15.

Brown country-G J. Prawitt clark

Brown county-G. I. Prewitt, clerk.

COW—Taken up by Daniel O'Kane, of Powhatan tp., September 27, 1888, one red cow, 4 years old, both ears cropved and left ear elit.
COW—Taken up by G. M. Kellough, of Mission tp., September 4, 1886, a 3-year-old red and roan cow, no marks or brands.

Labette county.—W. W. Cook, clerk.
PONY—Taken up by Wm. Te ball, of Oswego tp.,
October 14, 1886 one bay mere pony, about 6 years old,
brands of some kind on left jaw and left hip, saddle
marks on back, back appears to be injured, hind feet
white, shod in front; valued at \$10.

Lyon county-Roland Lakin, clerk, MARE—Taken up by L H. Johnson of Americus to., October 16, 1886, one bright bay mare, 8 or 10 years old, black m ne and tail, about 14 hands high, star in forehead, streak of white running over right nestril, little white on both hind feet, shod in front; valued at \$30.

¥

Strays for week ending Nov. 24, '86.

Franklin county-T. F. Ankeny, clerk. OW-Taken up by J. S. Howard, of Cutler tp., O. Lane), October 28, 1886, one red-roan cow, sup-led to be 6 years old, no marks or brands; valued

Cherekee county—L. R. McNutt, clerk. PONY—Taken up by Gilbert Allen, of Mineral tp.,

(P. O. Stilson), one bay mare pony, both hind legs and right fore leg white to the knee, white spot on left side behind shoulder, split in right ear, under half-crop in left ear, white face, Spanish brand on right hip, 6 years old; valued at \$25.

Butler county-James Fisher, clerk. HEIFER—Taken up by R. W. Pettit, of Little Wal-nut tp., October 2, 1886, one large 2-year-old red heifer, no marks or brands visible; valued at \$18.

Johnson county.—Henry V. Chase, clerk.

COW—Taken up by O. C. Gordon, three miles northeast of Prairic Center, September 25, 1886, one dark red cow with drooped horns, 4 years old, looks to be high-grade Short horn; valued at \$20.

COW—Taken up by J. J. Lawrence, four miles west of Olathe, October 12, 1886, one red cow, 9 years old, short tail; valued at \$15.

Anderson county-A. D. McFadden, clerk. PONY—Taken up by Thos. Means, of Reeder tp., November 15 1886, one brown horse pony, 4 years old, three white feet, had bell on; valued at \$15. PONY—Taken up by V C Wilson, of Reeder tp., November 15, 1886 one dark iron-gray horse pony, 9 years old, Mexican brand on left hip; valued at \$14.

Osage county-R H. McClair, clerk. Osage county—R H. McClair, clerk.

HEIFER—Taken up by John Q. Lloyd, of Arronia tp., November 12. 1885, one licht roan heifer, 3 years old, no marks or brands; valued at \$12.

MARE Taken up by L N. Thornbrugh, of Agency tp., October 30, 1886, one light bay mare, 12 years old, no m rks or brands; valued at \$12.

HEIFER—Taken up by J. W. Snyder, of Fairfax tp., November 15, 1885, one roan beifer, 1 year old, under-bit in right ear, tip of left horn broken off valued at \$12.

STFER—Taken up by Wm. Culver, of Fairfax tp., September 23, 1886, one white steer, 2 years old, branded O on left horn, some red hairs inside of ears; valued at \$25.

Rilay county—O. C. Barner, clark

Riley county--O. C. Barner, clerk. STEER-Taken up by Geo. Wales. (Wild Cat P. O.,) one light red yearling steer, no marks or brands.

Lyon county—Roland Lakin, clerk.

COLT—Taken up by G W. Gorman, of Agnes City tp., November 12, 1886, one small light strawberry-roan yearling horse colt, white stripe in sice, small white stripe inside of left hind foot, no brands; valued at \$20.

MARE—Taken up by David Wilsey, of Agnes City tp., November 2, 1886, one 3-year old iron-gray mare, no marks or brands; valued at \$40.

HORSE—By same, one 2-year-old grizzly gray or dark roan horse; valued at \$40.

FILLEY—Taken up by Chas. Moss, of Agnes City tp. November 6, 1886, one dark brown 2-year-old filley, no marks or brands; valued at \$50.

MARE—Taken up by C. E. Chamberlain, of Elmendaro tp., three miles east and one mile s.uth of Bitlertown, November 16, 1886, one bar ware, 4 years old, about 14 hands high; valued at \$45.

COW AND CALE—Taken up by L. A. Yager, of Elmendaro tp., ave miles east of Bitlertown and three-fourths mile north of Bucher school calf at side), white spot in face, white on each hip, i gs white up to knees, branded with what appears to be No. 10; cow valued at \$15. calf \$3.

HEIFER—Taken up by Andrew Haughton, of Elmendaro tp., six miles east of Madison. November 16, 1886, one hed yearling heifer, bush of tail white, small white spots on left side, no other marks or brands visibility valued at \$44.

STEER—Taken up by John W. Gist. of Agnes City p., November 12, 1886, one light roan 2-year-old steer, red ears, silt in left ear, branded K on left shoulder; valued at \$20.

Coffey county—H. B. Cheney, clerk. Lyon county-Roland Lakin, clerk.

Coffey county -- H. B. Cheney, clerk. COW—Taken up by George Chrisman, of Ottumwa tp., one red and white spotted cow (red heifer calf at side), 4 years old, Indian brand on left side and left hip; vsiued at \$20.

Montgomery county - H. W. Conrad, clerk STEER—Taken up by B. McBride, November 8, 1886, one roan steer, about 2 years old, illegible brand on right hip; valued at \$17.

Strays for week ending Dec. 1, '86.

Douglas county—Joel S. White, clerk.

COW—Taken up by C. C. Hall, of Clinton tp., (P. O.
Belvoir), November 11, 1886, one light red cow, 3 years
old, white hind feet, also some white hairs in face;
valued at \$15.

Anderson county-A. D. McFadden, clerk. Anderson county—A. D. McFadden, clerk.

STEER—Taken up by Conrad Baker, of Walker tp.,
November 15, 1886, one red yearling steer, star in forehead, white in both fianks, no other marks or brands;
valued at \$11.

COLIT—Taken up by Frank Cottle, of Putnam tp.,
November 11, 1886, one dark bay or brown mare colt,
2 years old, crippled in right fore leg, no marks or
brands; valued at \$15.

MARE—Taken up by James Cubit, of I incoln tp.,
November 10, 1886, one brown mare, 16 or 17 years old,
14½ hands high, branded E on left shoulder and W on
left hip; valued as \$20,

Butler county-James Fisher, clerk, HORSE—Taken up by J. A. Barton, of Lincoln tp. November 22, 1886, one dark brown horse, 12 years old 4 feet 8 inches high, unknown brand on left shoulder

Shawnee county-D. N. Burdge, clerk, Shawnee county—D. N. Burdge, clerk,
HEIFER—Taken up by Wm. P. Douthitt, of Topeka
tp, (P. O. Topeka), one dark red heifer, 2 years old
last sprize, baif crop off each ear, branded with characters similar to letter P on right slope of rump; valued at \$20.
STEER—Taken up by F. A. Richmond, of Auburn
tp., (P. O. Auburn), November 19, 1888, one red and
white 2-year-old steer, no marks or brands valued
at \$20.
STRER—Taken up by Joseph England, of Tecumseh
tp., (P. O. Topeka), one red and white steer, about 18
months old, no marks or brands; valued at \$12.
COW—Taken up by W. B. Raper, of Mission tp.,
(P. O. Topeka), one red cow, 6 years old, branded S on
right hip and right horn; valued at \$25.

Jefferson county--E. L. Worswick, clerk. COLT—Taken up by John Montague, of Kaw tp., (P. O. Grantville), November 1, 1886, one black mare coit, a little white in forehead, left hind foot white one inch above the hoof.

HEIFER—Taken up by S. J. Cox, of Sarcoxie tp., (P. O. Chester), onor about November 4, 1886 one red and white 1-year-old heifer, no marks or brands; valued at \$12.

ued at \$12 STEER—Taken up by C. F. Cherry, of Sarcoxie tp., (P. O. Chester), on or about November 9, 1886, one light roan 1 year-old steer, no marks or brands; val uen at \$15.

Wabaunsee county--G. W. French, clerk, STAG-Taken up by G. P. Tiffany. of Newbury tp.. P. O. Psxico). November 11, 1886, one brown and white spotted stag, 2 years old; valued at \$15.

Marion county.-E. S. Walton, clerk. HEIFER.—Taken up by J. L. Reed, of Center tp., one ed-brindled heifer, about 2 years old, swallow-fork in right ear; values at \$14. Nemaha county-R. S Robbins, clerk.

STEER—Taken up by Fred Warrenburg, of Illinois tp. November 10, 1886, one steer, 1 year ole past mostly white—some red spots, no marks or brands; valued Franklin county--T. F. Ankeny, clerk.

FIGURIA: COULTY--1. F. ALREBY, CIEFE.

MARE—Taken up by Samuel McDaniel, of Richmond tp., (P. O. Richmond), one bay mare, star in forehead, no hairs growing behind the ears supposed to be caused by burn, black mane and tall, supposed to be 3 years old, 15 hands high; valued at \$40.

Coffey county-H. B. Cheney, clerk.

Coffey county—H. B. Cheney, clerk.

COW—Taken up by G. A. Roby, of Liberty tp., one
red cow, white tail, left horn off at the point, 4 years
old, branded \$2 on left hip.

HEIFER—By same, one red 1-year-old heifer, no
marks or brands; the two animals valued at \$18.

COW AND CALF—Taken up by Alex Hensley, of
Spring Creek tp., one roan cow, 3 years old, slit in
right ear; also red heifer caif, no marks or brands;
valued at \$20.

Chase county-J. J. Massey, clerk. COW AND CALF—Taken up by Mattie Bres, of Toledo tp., November 18, 1885, one light roan cow, 2 years old, (with small calf), dim brand on left hip; valued at \$20.

years old. (with small calf), dim brand on left hip; valued at \$20 years and on left hip; STEER—Taken up by M. C. Gordon, of Toledo tp... March 27, 1886, one red yearling ster, some white in forehead and fank, branded with small letter D on each ham; valued at \$16.

COW—Taken up by T. J. Browning, of Falls tp. one large red cow wit some white on b-lly and fank, short horns, about 6 or 7 years old, branded on right hip with letter T in a half circle; valued at \$18.

MULES—Taken up by J. W. Wyatt, of Cottonwood tp. November 17 1886, one brown mule, 10 years old, branded D. G. on left shoulder; also one brown mule, 12 years old, branded O. Boon left shoulder; also one brown mule, 12 years old, branded O above left flank; valued at \$40 each.

Linu county-Thos. D. Cottle, clerk.

Linu county—Thos. D. Cottle, clerk,

COW—Taken up by W. A. Baugh, of Mound tp., No
vember 1, 1886, one red and white cow, white face with
small red spots in forehead, supposed to be 12 years
old; valued at \$20.

i OW—Taken up by A. McFarlin, of Potosi tp., November 13, 1886, one roan cow, 3 years old, slit in left
ear and crop off right, no brands; valued at \$15.

STEER—Taken up by T. A. Shoemaker, of Centervilletp, November 5, 1886, one red steer, 3 years old,
no mark or brand; valued at \$30.

Greenwood county--J.W. Kenner, clerk. PONY—Taken up by T. N. Robb, of Quincy tp., November 2. 1386, one roan mare pony, blind in one eye, no marks or brands visible; valued at \$50.

PONY—By same, same time and place, one bay gelding pony, no marks or brands visible; valued at \$40.

MULE—Taken up by G. W. Harris, of Bachelor tp.,
November 1, 1886 one iron-gray horse mule, about 3
years old, scar 8 or 10 inches long on right hip; valued
at 860.
STEER—Taken up by Henry Lawrence, of Pleasant
Grove tp., October 2, 1886, one roan steer, 2 years old,
in listinct brand on left hip, hole in right ear and
slitted out; valued at \$18.
STEER—Taken up by T. L. Chaney, of Salem tp.,
November 20, 1886, one pale red yearling steer, branded
X on right hip; valued at \$15.

X on right hip; valued at \$15.

Chautauqua county — A. C. Hilligoss, elerk,
COW—Taken up by S. A. Burson, of Sedan, one bay
horse colt, 2 years old, 15 hands high, harness and sadele marks, scar on left shoulder and on left fore leg.

Lane county--T. J. Smith, olerk HORSE—Taken up by Joseph Moore, of Cheyenne tp., October 21, 1886, one sorrel horse, about 12 year old, blind in left eye, branded G on left shoulder and Hat on left hip, as near as can be ascertained; valued at \$15.

Lyon county—Roland Lakin, clerk. LYON COUNTY—BOIRNG LERIN, CIEFA.

MULE—Taken up by W. L. McClelland, of Emporia
tp., November 4, 1886, one 3-year-old brown mare mule,
branded P. L. on left hip and CM or GM with bar underneath on left shoulder; valued at \$25.

CALF—Taken up by Jas. Miles, of Pike tp., one and
a haif miles southwest of Patty's mill, one black muley
steer calf, some white in forehead and on nose, rather
short tail; valued at \$12.

Brown county--G. I. Prewitt, clerk. HEIFER—Taken up by G. Joss, of Walnut tp., Octeber 29, 1886, one yearling heifer, red with white spots on shoulders and belly and white spots between hips, bushy end of tail off; valued at \$12.

STEER—Taken up by J. E. Wintersheidt, of Mission tp., November 16, 1886, one small yearling steer, red and white, ne brands visible; valued at \$14.

J. L. HASTINGS. Wellington, - - Kansas,



Dealer and Breeder in Imported and High-Grade FRENCH DRAFT & CLYDESDALE HORSES.

Terms reasonable. Satisfaction guaranteed. Cor-

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IMPORTERS AND BREEDERS OF

Percheron, Clydesdale and Coach Horses.

106 Head of Stallions just arrived from Europe. Choice stock for sale on easy terms. We won all the leading prizes at Kansas State Fair this fail.
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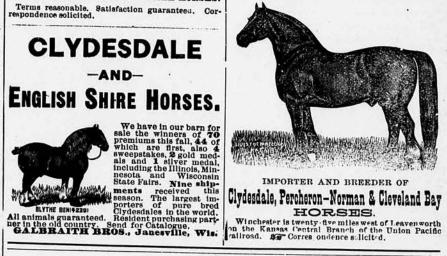
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RED POLLED CATTLE and LARGE

YORKSHIRE PIGS, Have a very choice collection on hand to be sold cheap. Correspondence solicited. 34 East Fifth Street, TOPEKA, KANSAS.

The Beterinarian.

[The paragraphs in this department are gathered from our exchanges.—Ed. FARM-ER.]

GOITRE.-I have a fine three year old bull that for a year has had a bunch growing on one side of his throat just back of the jaw, till now it is about the appears in June. size of my two fists and interferes with his breathing. What is it and how shall I treat it? [Your bull has a goitre or enlarged gland. Paint with Co. tr. iodine every day; if it blisters discontinue it and grease till better, then apply again.]

PARAPLEGIA.-I have a number of pigs affected as follows: They seem to be weak in the back when first attacked; finally they lose the use of their hind parts. They are in excellent condition and are excellent eaters; they have been kept for some time in a pen; at other times have run at large. What ails them, and what is the treatment? [The pigs are affected with paraplegia (transverse paralysis), no doubt induced by too much stimulating food. Those that are laffected will probably die, and those which have escaped an attack should have a dose of castor oil each, enough to produce a cathartic effect. The feeding should be restricted and a vard provided sufficiently large to allow them to take plenty of exercise.]

GRUBS IN COW'S TONGUE.-Is there any such disease as grubs in the tongue of the bovine tribe? We have a grade Ayrshire and Short-horn cow which seems thus affected. She grew poor on good keeping; was told she probably had grubs in the tongue, which on examination seems to be a fact. What appears to be a red-brown head of the grub is seen all over the tongue, not more than half an inch apart. The cure is said to be to draw out the tongue and in Kentucky. with a knife scrape the tongue and rub over with spirits of turpentine. So remarked a Michigan man, who says it is not uncommon there. The cow refuses every form of hard food, has never run in pasture, but soiled in yard and stable; always well kept. [Scrape the tonge; then dry it with a coarse towel, and paint it with tincture of iodine.]

MANGE.—Please give me treatment for my mare. She has been troubled with a terrible itching all summer, and is badly broken out on the back and loins, and is constantly rubbing her mane and neck. [The mare is probably affected with the mange. In consequence of the highly contagious nature of this disease it is necessary that every precaution should be taken to prevent it from spreading. The diseased subject should be isolated and everything in the stable where she has been kept, including harness, blankets, and all stable equipments, should be thoroughly clensed. Treatment.-If the hair is matted together, forming scabs on different parts of the body, it will be necessary to apply some kind of oil to loosen the scabs; then a good washing with soft soap and warm water will remove the entire debris; the following liniment may then be applied with a sponge: Whale oil, 2½ pints; oil of tar, 2 ounces; mix.]

A mulch of two inches of short manure on the surface around spring-planted trees will help them more than anything else to withstand the drouths of summer.

Our Progress.

As stages are quickly abandoned with the completion of railroads, so the huge, drastic, cathartic pills, composed of crude and bulky medicines, are quckly abandoned with the introduction of Dr. Pierce's "Pleasant Purgative Pellets" which are sugar-coated and little larger than mustard seed, but composed of highly concentrated vegetable extracts. By druggists.

As soon as currant worms appear powder the plants carefully with white hellebore.

Feed young chicks early and often, and keep them supplied with water, or better still, sweet or sour milk.

A Pennsylvania fruit-grower prevents the ravages of the borer by hilling the earth about the tree ten inches in May, as the borer

In the cure of severe coughs, weak lungs, spitting of blood and the early stages of Consumption, Dr. Pierce's "Golden Medi-cal Discovery" has astonished the medical contampute. It is the medical faculty. While it cures the severest coughs, it strengthens the system and purifies the blood. By druggists.

The cabbage thrives best under abundant cultivation. If the soil seems to bake, or the plants show signs of disease, the cultivation should be more frequent.

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A clergyman, after years of suffering from that loathsome disease, Catarrh, and vainly trying every known remedy, at last found a pre-scription which completely cured and saved him from death. Any sufferer from this dreafful dis-ease sending a self-addressed stamped envelope to Dr. Lawrence, 212 East Ninth street, New York, will receive the recipe free of charge.

It requires more time to spread manure over two acres than over one, hence the aim should be to concentrate the labor on the smallest space that can be made profitable.

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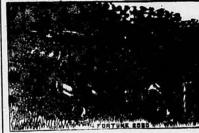
Medicine sent to any part of the United States C.O.D. Two and a half pound package, \$1.00; or for the next thirty days, one dozen packages for \$8.00.

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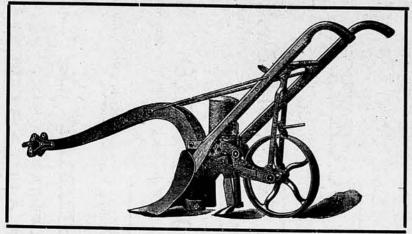
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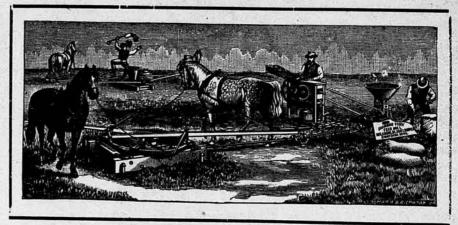
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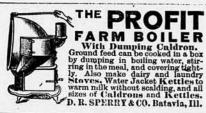
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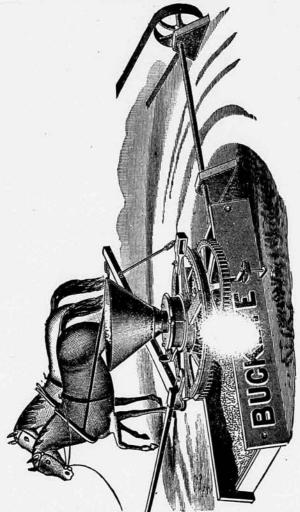
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