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TOPEKA, KANSAS, THURSDAY, OCTOBER 20, 1887.

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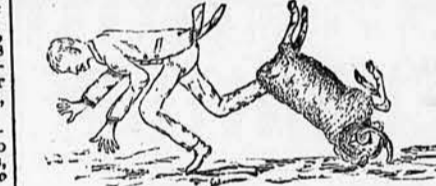
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Agricultural Matters.

About Tame Grasses in Kansas.

There is a good deal to be learned about the cultivation of tame grasses in Kansas, and among the important features of the needed lessons may be mentioned (1) the intrinsic value of tame grasses as milk and meat producers, (2) the best kind of soil for the growth of tame grasses, and (3) the best mode of seeding and culture.

For cattle, there is no grass much better than wild prairie grass when it is growing vigorously. It produces good milk and good beef. It would be difficult to find better butter or beef than that which is made directly from the nutritious grasses of the Kansas prairies. Red clover, orchard grass, meadow oat grass, in their best stages of growth, surpass any kind of wild grass in all their nutritive elements; but if there were nothing else to be considered in the matter except the comparative merits of the grasses during a few weeks of their growth, there would be little incentive to change from the wild to tame varieties.

There are other things to be considered, however, and they are very important. Tame grasses come earlier in spring remain longer in fall, besides being better than the wild grasses even while they are growing. Tame grasses furnish not only better pasture than wild grass but they make better hay, also. The sod of tame grasses is easier to work when it is turned over by the plow, and it produces a better crop of whatever is grown upon it than the natural sod does. Soil may be much improved by raising tame grass on it a few years, and still further improved by turning the growing grass under as a fertilizer.

Soil that has been cultivated some is better for the production of tame grasses than new, raw prairie soil. The difference in this respect is not so great in case of timbered land; it will produce some kinds of tame grasses at the first seeding. Prairie soil is more mixed with fine grass and weed roots which, until they are well rotted and mixed with the soil keep it loose, not in the form of dust, but rather in maintaining a separation of earth particles. A piece of new prairie ground may be well plowed and harrowed and look as well as an adjoining piece of old ground, but it is not so compact, and it will dry out sooner. If the season is wet the difference will not be so marked. In a dry season it would be difficult to get a "catch" of grass on new prairie ground.

As to method of preparing the soil and of seeding it to grow grass, it is important that good plowing should be done as the first step. It may not be necessary to plow immediately before sowing the grass seed. It is sometimes better, generally so, indeed, that the plowing be done some months before the seeding, as in the case of sowing grass on wheat stubble ground. If the plowing of the preceding year was well done, and if the soil itself was in good condition all the year and in good condition at the seeding season, rich, fine and clean, in that case it would be better to merely scarify the surface and get the seed in than to plow it up deep. Grass seed is small and grass roots are fine. Soil to receive the seed and hurry forward the work of germination should be fine and compact, not hard but well settled, so that there will be no air-holes for the roots to dry in. But the soil must be put in good condition in some way; it must be well pulverized, firmed and the surface smooth and regular. If it is too loose, it must be rolled, or the seeding should be delayed

until a good rain has fallen upon the ground to settle it.

All things considered, it is better to sow the seed in early autumn, and it is better to sow it alone; that is, not with any grain crop, as wheat or rye. Kansas soil is loose at the surface, generally, easily dried by our warm winds, and it is well, therefore, to sow seed plentifully. Of red clover seed, ten to twelve pounds to the acre is little enough; of timothy the quantity should be about fifteen to twenty pounds to the acre; of Kentucky blue grass twenty to twenty-five pounds; of alfalfa, let the quantity be not less than twenty-five pounds. Other seeds of like size and weight may be gauged by these figures. Choose a time when the air is still, sow broadcast, cover with light harrow, and if the soil is very light, roll it.

The after treatment will depend on the "catch." If the seed germinates well and the season is favorable, nothing need be done until hay-making time the next year, when the grass may be cut and made into hay and the field let lie for a "second crop" or for pasture in the fall. If the "catch" is not good the case must be treated as shall appear to be best under the circumstances. If the failure is only slight, it may be doctored in the spring by re-seeding the bare patches; and the field may have to be mowed two or three times merely to keep the weeds back and give the grass a chance. If the case is a bad one, but little grass appearing, it will have to be treated heroically—the ground plowed up and seeded to something else, as potatoes or corn, in order to keep the ground clean and loose so as to be ready for another effort with grass at the earliest opportunity and not to lose a crop.

Alfalfa for Pasture and Hay.

It is doubtful whether this grass has been fairly treated by more than a dozen farmers in the State. For some particular localities it may not be as valuable as some other varieties; but in other places, and particularly where irrigation is practiced, it ought to do quite as well in Kansas as it does in Colorado. It has been tested by several farmers who have written out their experience in the KANSAS FARMER. Dr. Eidson, of Lyon county, spoke very highly of it two years and more ago. We have not learned how it stood the dry weather of the last summer. Here is what an Illinois farmer says about this grass in the *Rural New Yorker*:

My personal experience and observations within a year and a half, have led me to make as high an estimate of the value of this crop for summer forage and winter hay, on the black-soil prairie of Illinois, as is entertained by those who have grown and fed it for years in Colorado and California. An example of how hearing and reading instruct us, while seeing convinces, I found satisfactorily demonstrated in the case of alfalfa that I saw growing for the first time in most luxuriant fashion in many fields about Greeley, Col., late in July, 1886. I had previously read much about it, and had experimented on a small scale, and all very satisfactorily; but how extensive and magnificent a crop it might be when grown on a grand scale in a rich soil and sustained by irrigation, I had no previous conception of, and I resolved I would do what I could by precept at first and example after, to introduce it to the black soil prairie and contiguous country. During the present drouth, which began in June and seems not likely to end before October, if there has been a lack of one or two things more than others, deeply and almost universally felt, it has been the want of green forage and the scarcity of water for stock. If there is fresh forage vegetation, and scarcity of water it is not so severely felt; if there is enough grass in the pastures, it is not a very serious matter if it is as

dry as hay, if only water abounds—when there is neither the case is a serious one.

Now that for the larger portion of the black soil counties, the water level of the country has been sunk from an average of eight or ten feet forty years ago, to three times that depth at present, and the only real perennial wells are those sunk from one to two hundred feet to the sand strata between the two clays, it will be found cheaper to furnish stock a portion of the moisture they need in the hot and dry season, in a rank and lush forage crop. And this alfalfa furnishes on all deep, strong soils, where the worst and severest drouths are not enough to prevent the large development of the oak, the walnut and the ash. As to depth and quality of soil, a good natural corn, wheat or clover land will sustain alfalfa, and if the land is subsequently reinforced by manures and fertilizers, every second or third year, it will yield abundant crops as long as a well made bed of asparagus. For the black soil of the prairie, though the summer drouth was long and severe enough to deaden the timothy and red top, bleach the blue grass to the color of light straw, kill most of the weeds and adventitious grasses, the roots of red clover penetrated deep enough for it to sustain life and make a feeble growth. On such soils, alfalfa, once a full stand and a strong growth had been attained, would smile at the heat, laugh at the lack of rain, get the first crop ready for the mower early in June, the second after the 20th of July, and the third before severe frost in September.

But this is treating an alfalfa field as if it were always to be mown and never pastured. And so it never should be, if it is to be over-stocked and the herbage eaten bare to the ground. If the three-sters-to-the-nine-acre rule be adopted, as with the best blue grass and timothy pastures of Illinois and Iowa, alfalfa will submit to pasturage as cheerfully as clover—an example of which I saw on Mr. Max Clark's farm, some miles out of Greeley, Col., where horses had been pastured five summers and they were then cutting the seventeenth crop, the last week in July. Here the herbage was so thick and heavy that the visitor to get through had to lift his feet high and go slowly as if wading through two feet of snow. For horses, sheep, and mules, there is no green food superior to alfalfa, and as for mules the woody nature of the plant is peculiarly gratifying to the somewhat ravenous character of their digestive organs. Hogs will live and do fairly well upon it, but the herbage for them is inferior to that of red clover, and also as green food for milch cows. For horses and mules doing fast work, or those very severely tasked, alfalfa, whether green or dry, loosens the bowels too much and must be avoided, but for slow work this is no objection. Indeed, for shining coats and other evidences of high health and complete digestion, there is nothing superior to the single and double teams of the gentry of Denver, where the hay portion of the daily ration is well-cured, second-crop alfalfa.

But as so much space has been taken, stating the main good points about alfalfa and correcting some of the numerous misconceptions regarding it, there is little left to devote to the matter of its cultivation. Perhaps in average cases, the best method will be, after selecting a piece of strong, deep-soiled land, that has never failed to make a crop in a wet season, to give it the extra preparation by deep plowing, harrowing and fining, one would give for a premium crop of wheat. Then in course of September for northern lati-

tudes, October for middle and November for southern, sow rye at the rate of one peck to the acre, and harrow and roll. If a heavy growth is made, pasture the rye down in the late fall and early spring months, and then as soon in spring, for all latitudes, as danger from severe frost is over, sow the alfalfa seed, twenty-four to thirty pounds to the acre, on the rye, and roll the field so as to get the seed well covered. When green-ripe, harvest the rye and allow the alfalfa to keep undisturbed possession of the field for the whole season, except cutting the weeds in September, which have grown during the summer.

Remember that the young alfalfa must not be pastured or otherwise disturbed, except as above, the first year of its life. Like many other hardy plants when mature, alfalfa is tender in its infancy and requires nursing, and remember, too, that after the second year the land must be fertilized with phosphate and potash fertilizers, applied in liberal measures if three heavy crops of forage are to be taken off each. It is very much more difficult in the average season to get a stand of alfalfa than one of red clover; but when once obtained it will last for a generation; whereas clover, unless the second crop is left on the land to seed itself, dies down the second year, and when the soil is approaching the condition of "clover sickness," a little extra frost in severe winters will throw the roots out, whether young or old. Seeding to timothy and clover having measurably failed this season, it will be a good time to experiment with alfalfa, the seed of which ought to be had at the price of clover seed, after the failure of this year's crop.

Agricultural Notes.

Spread ashes as soon as they accumulate, instead of leaving them in a big pile to be leached by rains.

Every weed occupies the space in which some plant more valuable should be growing, and the farmer cannot afford to give them the space they require.

The bull thistle, unlike the Canada thistle, does not propagate from underground roots, but can easily be got rid of in two seasons by not allowing any plants to go to seed.

Minneapolis is the greatest wheat market of the world. During 1886 the wheat receipts of Minneapolis were 35,066,100 bushels; at Duluth, 20,652,399; at Chicago, 15,982,524.

Farmers should know and practice on the knowledge that persistent cutting at or a little below the surface of the ground will destroy most if not all varieties of noxious weeds.

Let the soil be ever so rich, a first-class pasture must have age. It cannot be made in one year, or two, or three. The older it is, other things being equal, the better. Only with years does it form the dense, compact, velvety sod and the feeding qualities that are so valuable.

At the beginning of the year the Minneapolis mills numbered twenty-six—twenty-four on the west side of the river and two on the east side. While the west so greatly out-numbers the east side in mills, the east side enjoys the distinction of having the mill of largest capacity in the world. This is the Pillsbury A mill, having a capacity of 7,000 barrels of flour every 24 hours.

Stephen Powers, referred to by a correspondent of the *Country Gentleman*, for a method of making sandy soils productive, says: "The controlling principle in the management of such lands should always be: Fertilize the crop and not the land. The permanent enrichment of porous, sandy soils, beyond a certain point very soon and easily reached, is not practicable. Like the old-fashioned muzzle loading guns, they must be loaded every time they are fired off, for they will not receive a number of charges at once. Whether the fertilizing matter leaches down or evaporates up, the fact remains that manures soon disappear and their effect ceases to be manifested."

The Stock Interest.

DATES CLAIMED FOR STOCK SALES.

NOVEMBER 8.—G. & J. Geary, Aberdeen-Angus cattle, English Shire, Yorkshire Coach, Clydesdale and Trotting stallions, Brookfield, Mo.
NOVEMBER 24.—C. C. Logston, Short-horns, Independence, Kas.

Cattle Farming in the Argentine Republic.

Some weeks ago we presented our readers with some extracts from a consular report showing the commercial status of the beef and mutton trade of the great cattle-growing regions of South America. We now have something more in the same line, copied from the *Farming World*, published at Edinburgh, Scotland. The writer says:

The Argentine Republic, one of the most important States in the South American continent, has of late years developed into a formidable competitor of Australia and New Zealand as a great meat-producing country. The marvelous extension of the railway system during the last twenty years has largely contributed to this result, by opening out a grand network of communication between the rich pasture lands of the pampas and the chief markets and sea-ports of South America. The country contains about 900,000 square miles, and many varieties of climate and vegetation are to be met with; but, speaking generally, the climate is delightful. Europeans can work all day long even in summer; and in winter there is rarely frost or snow to impede out-door work. Rain seldom falls except in the rainy season, but the heavy night-dews keep the prairies perennially green. In the provinces of Cordova and Santa Fe, at a distance of four to five leagues from the Central Argentine railway, connecting the two, a square league of land (about 6,600 acres) may be purchased at £3,000 of such quality as will carry 1,000 head of cattle without cultivation, and in addition to this, some 500 sheep and 50 horses. The native cattle may be calculated to be worth £2 per head, the sheep about 5s., and the horses about £3 for the ordinary stock of the country. In some parts of the Republic, four or five times this quantity of stock may be put on the land, which of course, is valuable in proportion to the amount of stock it will carry. After purchasing the land, the next thing to be done is to build the house; in choosing the position of which it is necessary to ascertain by digging a well if the water is good and drinkable. The natives, from long practice, are wonderfully expert in pronouncing where good water is likely to be found. The houses are built of brick made from the soil, burnt in rude kilns, and constructed in the Spanish style, with all the rooms on the ground floor, "and surrounding a court-yard or "patio." If the land is to be fully stocked at once, it becomes necessary to enclose it with a fence, and by the laws of the country your neighbor has to pay half the cost of the fencing, which is generally done with hard wood posts and wire. Cattle are kept in these parts in herds of about 1,000, with a few sheep, and each herd is managed by a man and a boy. The man as a rule, is married, and a small hut or "rancho" is provided for him, made of mud and sticks, and thatched with grass. The woman cooks, milks, and supplies butter and eggs to the house of her employer; and the man's duty includes keeping the fences in repair, and making himself generally useful when the cattle do not require his immediate attention. He is paid from £2 to £3 per month and his keep. At the farm or "estancia," as it is locally termed, the daily life is interesting enough. Every one turns out at sunrise, summer and winter, when coffee is served, and by the time the short repast is finished,

one of the "peons," as they are called, has rounded up the horses, which may have grazed away to some distance from the house during the night. These horses he drives into an enclosure, or "corral," where each man lassoes his own horse for the day. One of the party then starts off to visit the huts or "ranches," and takes meat or other provisions; arriving if possible about the time that the cattle are being watered, in order to talk over matters connected with stock with the man in charge. On his way he takes note if the fences are being kept in good order; and he will, as a rule, take his gun with him, and bring home a few wild ducks, snipe, plover, partridges, or pigeons, with which these prairies abound. It is astonishing how handy in all sorts of work the settlers become, and it is seldom necessary for them to have to call in outside aid in any of their repairing work. They may be seen building their own out-houses, pig-styes, digging wells, and rigging up the water-drawing apparatus, gardening, and doing all kinds of carpentering work. Every one is out of doors all day long, and the evenings pass in social glee.

The daily food consists chiefly of beef or mutton, boiled and roast (the former dish is called "puchero" and the latter "asado"—both are excellent,) soup, varieties of prairie game, vegetables—such as tomatoes, pumpkins, potatoes, cabbages, and a few others; and fruits, principally peaches, melons, apples, pears, quinces, etc. Living is exceedingly economical, £20 per annum being usually reckoned as the cost of the man's keep, without, of course, wine or beer. The laboring peons cost about half this sum. The annual period for marking or branding the young cattle (which varies from two days to a week) is generally a time of excitement and festivity. The estancias are then *en fete*. The cattle are herded together; those required for marking are lassoed, thrown down and quickly branded on the flank with a hot iron. Each estancia has his own particular mark, so that there can be no mistake as to the ownership of the cattle. A man on a journey across the prairies usually takes some raw beef with him in the morning, and collecting a few dry sticks as he goes along, makes a fire and roasts the meat in the ashes, taking care to extinguish the fire on leaving, so as to prevent the prairie burning.

With regard to produce markets and sales, it may be assumed as a rule that the stock's increase is from 20 to 30 per cent. per annum. The cattle are sold at two years old, the sale being effected usually with dealers who come round to the estancias to buy, and payment is made in cash on the spot. The dealers take the fat animals to the cities for consumption, and also to the "saladeros" or large export slaughter houses, situated on the rivers and seaports, where the animals are killed in immense numbers, the hides sent to Europe or elsewhere, and the offal boiled down for tallow and bone manure, and whence an enormous export of salt meat called "charqui" is made for Brazil. The Chilean market is similarly supplied. The Chilean dealers come over to buy the cattle, driving them to Mendoza, where they are pastured in rich irrigated alfalfa, "potreros," to rest and fatten previous to being driven across the passages of the Andes into Chili. A large sale of sheep for freezing purposes is being carried on; great refrigerating warehouses having been erected at the seaports for facilitating exportation, and both beef and mutton in the carcass are being shipped to Europe, the shipment of the latter, principally, being

very large. The southern prairies, until a few years ago, were in the hands of the Indians; but, by the energy of General Roc, who afterwards was President of the Republic, they were so harassed and driven back, far into Patagonia, that there are no Indian tribes north of the Rio Negro. The settlers in these southern frontier districts lead a very rough and primitive life, living almost always on horseback, and using the "recado," or native saddle (which is made up of sheep-skins and rugs bound together on the horse with a hide girth about ten inches broad), as their bed on the ground at night in their rude huts, and subsisting many days by the gun, without any other means of obtaining provision, from not liking to kill their cattle for so small a consumption. These lonely prairies are still roamed over by the "rhea," or South American ostrich; an occasional puma and jaguar is seen; and the constant vigilance required to protect the herds, gives now and then a spice of danger to the sport. The native peons are as a rule very good natured, active and intelligent in looking after the cattle, splendid riders, and prove of great assistance to the settlers, if consistently treated. The cultivation of flax, maize, wheat, and other cereals, is making rapid strides; and altogether, the Argentine Republic promises to become at no distant date, one of the most important factors in the provision markets of the world.

Our neighbors in France are already stirring in the matter of trade with the Republic, for we hear that a syndicate has presented to the government of the Argentine Republic, a project for the creation of a new line of ocean steamers between Buenos Ayres and Bordeaux, to be called the Argentine line, navigating under the Argentine flag, and having its headquarters at Buenos Ayres. It will be a fleet of eight steamers, each of them with a tonnage of 3,500 tons. They will be especially fitted up for the emigration trade, and will be provided with refrigerating apparatus, suitable for conveying Argentine produce across the sea. The directors will bind themselves to establish such a service that one steamer will arrive weekly, fifteen days being allowed for the voyage. The correspondence of the government will be carried free of charge, and in the case of war the government will be entitled to use the vessels on certain terms. The government is to guarantee 5 per cent. on the capital for twenty years—the capital being five millions of piastres. When the dividends paid exceed 12 per cent. they will be devoted to the formation of a sinking fund.

It is a mistaken idea to suppose that because sheep are covered with a heavy fleece of wool they need no protection from the rigors of winter.

In Philadelphia the old and broken-down horses and mules are purchased by those in charge of the Zoological Garden for food for their carnivorous animals. Broken-down horses are purchased for from \$2 to \$5 each.

What are called sheep "ranches" in this country are known as "stations" in Australia. A single "station" in that greatest country in the world for the production of cheap wool will often contain from 100,000 to 300,000 acres, stocked with sheep at the rate of one to every acre and a half or two acres.

Professor Knapp, in discussing the question of how to bring colts to maturity best prepared for many years of usefulness, claimed that the farmers and horsemen of Iowa wasted over \$15,000,000 per annum by over-feeding their colts and young horses. He also argued that two quarts of oats and two ears of corn twice a day is liberal feeding, but the colt would eat twice as much and not be as strong.

Nature of Catarrhal Affections.

We are in receipt of a paper on the essential nature of catarrhal affections, prepared by W. D. Epperson, V. S., Ottawa, Kas., from which the following extracts are taken: "If I should attempt a definition of the word catarrh, I would say whatever results from catching cold is catarrhal. I suggest that it should be held to imply identity in cause and not similarity in result. The word should enable us to employ it for more accurate clinical purposes than it is commonly used. Conditions which follow from other and dissimilar causes however similar in results, should be refused the name. There is no reason why all forms of inflammation of mucus membrane attended by free discharge, irrespective of their cause, which are often very different, should be called catarrh. On the other hand, if we use the term in the sense that seems to be intended for it, we shall find it applicable to other inflammations besides those of mucus tissues. In doing this we shall construct a large and natural group of maladies. The catarrhal diathesis is one of fundamental ones, and used in its widest limits in the individual, is so common as to be almost universal. We can scarcely assert of any one that he is free from it, and the question is rather as to estimations of the degree that he is liable. This, in its finest sense of the word, applies, possibly, to all vertebrate animals. Every organization possessing a nervous system must be supposed to be capable of manifesting it, for its underlying factor consists in proneness to inflammatory congestion of mucus surfaces, excited in a reflex manner through the influence of cold.

"The susceptibilities of the nervous system, however, in this direction, differ very greatly in different individuals. Not only do different individuals differ in the degree of reflex susceptibility, but they also vary much as to the special tissue or organs which are most prone to suffer under it, thus in some individuals cold localizes almost solely in the mucus membranes of the nasal passage, and in others the tonsils, throat and larynx are most prone to suffer, others the bronchial mucus membrane, while others the stomach and bowels, or even the liver are the seat of the affection. It is evidently true that many of the forms of acute bronchitis and pneumonia and some forms of enteritis, peritonitis and pleurisy are distinctly catarrhal in their nature, that is, they result from the exposure of the individual to the ordinary causes of catarrh. In this connection we can do no better than to admit rheumatism to the rank of universal diathesis, and place it in the group with scrofula and catarrh. In so doing we will not be far wrong if we conclude that rheumatism, after all, is only the catarrhal diathesis affecting the joints. We can, however, have but little hesitation in admitting that it may be the parent, not only of rheumatic fever, of transitory rheumatic pains of joint, fascia and muscles, but of crippling arthritis of the young, in which almost all the joints are involved, and in senile periods of the slowly destructive arthritis which wears away the cartilage and eburnates the bones. Further, I think we may grant that all of the affections which have been named, occur in animals in whom there is no reason to suspect a gout complication. * * * "There is one element of this subject that I have already referred to, that I desire to invite your special attention, namely, the changes in the state of the nervous system that results from inflammation of mucus surfaces, that we recognize as nerve force. By

that term we mean the loss of power of producing nervous energy. When the tone is low, there is but little vigor in resisting irritation, and comparatively slight influences will evoke a large amount of disturbances. The vigor no doubt depends upon the disturbed nutrition of the nerve cells themselves. It is further true perhaps, that in most of the conditions in which derangement of the tone is in question, the disturbance or enfeeblement applies chiefly to that part of the nervous system that controls the circulation. It devolves upon the nervous system to regulate the supply of blood to the various parts the organization. To prevent local arterial spasms, and under the varying conditions of life to maintain the normal balance of circulations, when this power is deficient, the various causes of disease act with greatly increased effect."

Stock Notes.

A little linseed meal, given occasionally, will help to keep the coat bright and glossy.

Dusty and mouldy food is to be specially avoided, not only for its effect on the digestive organs, but for its evil results upon the respiratory organs.

It is conducive to health to feed the hogs where they can have the range of the pasture fields. It may take a little more corn to make a pound of pork, but it is better pork.

Orchard grass hay, cut just at the blossoming, is excellent for horses. Ripe timothy is the next best, and corn blades, pulled green and well cured, make as good feed as any.

The only way to keep a good horse so, is by care. If you do not have to do the work yourself, it is necessary to know how, so you can intelligently direct the labors of others.

T. D. Curtis says: "A large sty is not necessary, and I should much prefer a number of small ones, with separate yards, rather than an extensive one. They might all be made with one continued roof, but the partitions should be frequent."

It is not necessary that a pig house should not freeze, but it is necessary that the air should be free from dampness and the chilliness which is connected with a cellar or a warm, damp place. Hogs are very susceptible to colds, both inward and outward, and to rheumatism.

It is not reasonable to suppose that a hog can make good pork out of the refuse of all creation, just because he will eat almost any mess you give him, under pressure of hunger. It is expected that the pork made will partake somewhat of the nature of the food consumed, and the knowledge of this fact helps the farmer to provide sweet, wholesome meat for his own use.

The shrinkage of the muscles of the shoulder, and what is commonly called "sweeny," is due to some lameness of the foot or limb, which induces the horse to favor the shoulder, and throw the muscle out of use. This inaction causes the muscle to decrease in substance, and the shoulder flattens or becomes hollowed. The remedy for this disfigurement is to relieve the lameness and restore the shoulder to proper activity.

Thirty-two Hereford cows sold at public auction in England, not long since, for an average price of \$431, about the highest average yet reached.

The Weaker Sex

are immensely strengthened by the use of Dr. R. V. Pierce's "Favorite Prescription," which cures all female derangements, and gives tone to the system. Sold by druggists.

L. H. Bailey strongly recommends the raising of seedling fruits from our standard American varieties. The only danger to result, he thinks, would be the thrusting upon the market of untried or insufficiently tried sorts by those eager for speculation.

Catarrh Cured.

A clergyman, after years of suffering from that loathsome disease, catarrh, and vainly trying every known remedy, at last found a prescription which completely cured him and saved him from death. Any sufferer from this dreadful disease sending a self addressed stamped envelope to Prof. J. A. Lawrence, 212 East 9th St., New York, will receive the receipt free of charge.

In the Dairy.

About Making Cheese in the Fall.

A correspondent of the *National Live Stock Journal*, Chicago, says his fall-made cheese does not cure properly, and he loses money on it. He wants to know whether there is any way to remedy the trouble, and the editor, answering, says:

"There is nothing about the fall milk to prevent it from making cheese that will ripen as soon as cheese made in July and August. It differs from milk made earlier in the season, chiefly in its containing a smaller percentage of water. It is simply richer as the season advances, and the quantity diminishes. Eight pounds of milk the 20th of October will make as much cheese as 10 lbs. the 20th of June. This can certainly be no detriment to the cheese or its curing. This is demonstrated by the fact that some cheese-makers have their fall cheese ripe and fit for use in as good time as their summer cheese. What man has done, man can do. By imitating the successful manufacturers, every one could do exactly the same thing. The first error which cheese-makers are apt to commit, with respect to working fall milk, is not using rennet enough for 1,000 lbs. of milk in the fall, which they did in the summer when it was thinner. This deficiency of rennet makes the curd slower to cure. Dairy men seem forgetful of this fact. They, indeed, seem very oblivious of the fact that rennet is one of the most essential agents in the conversion of curd into cheese, though they recognize the fact when it is pointed out to them. The necessity of adapting the quantity of rennet to the quantity of curd to be cured is very apt to be ignored in practice, though always acknowledged in theory.

"October milk requires 20 per cent. more rennet than June milk, on account of its being richer in curd, and from 5 to 10 per cent. more on account of its fresher condition, from being kept cooler—new milk requiring more rennet than old to produce the same effect. It has been advised to apply the rennet at a higher temperature than usual in the fall and winter make. This is exactly the reverse of what should be done. In late-made cheese the milk should be cooler than usual, so that more rennet can be used without having its action so hurried as to prevent the manufacturer from handling it safely and properly. Where there is probability of delay in the process of curing, it is better to hurry the operation by increasing the proportion of rennet to milk above what would otherwise be appropriate; but this could not be done if the temperature of the milk is raised, because the cheese-maker would not be able to treat it as it should be. It is, therefore, better to set lower, so that more rennet may be used. If it was not for regulating the manipulations of the curd, according to the action of the rennet, milk might be set at the same temperature at which the curd is scalded, but to do so would jeopardize the handling of the curd; hence it is set low and heated afterwards, to suit its action to the work.

"A second reason why fall cheese does not cure as well as cheese made earlier in the season is, it is not kept warm enough. In hot weather, cheese will take care of itself, so far as rapid curing is concerned. If not protected against the heat, it is apt to cure so fast as to puff and become porous, and acquire bad flavors and hurry it to decay; but in the fall, when it becomes cool, bad flavors develop because, if unprotected from the cold, it cures too slowly, even if properly made. A very large share of

the defects in the curing of fall cheese is due to imperfect curing-rooms.

"A cheese cures better at a certain temperature than at any other, depending on the way in which it has been made, and hence the importance of having the curing room so constructed that a uniform temperature can be maintained all the time.

"It is known that the curing of cheese can be regulated pretty much at the will of the operator. It may at any time of the year be cured in a few days, or it may occupy a few months, or a few years even, just as the maker may decide. By using plenty of rennet, and keeping the unpressed curd warm and well exposed to the air, in a finely divided condition, the curing may be so far advanced in a few hours before pressing, that a short time in a warm curing room will make it ready for market. There is no difficulty or uncertainty about the result in spring, fall or winter in curing a curd from full milk into a palatable, ripe and rich cheese, ready for the market or the table in ten days' time. There is no longer any necessity for longer time in curing cheese-made late than there is when it is made in the hottest part of the season. It is only a question of proper and skillful treatment of the curd, in respect to the use of rennet, temperature and air—agents as regular and reliable in their effects as the action of gravitation. There is no necessity for sending fall cheese to market green, soggy, sour and bitter, as much of it is, if makers are posted in their art as they should be. It is not urged that all milk will make a cheese equally fine. Milk made from late-cut hay, corn stover, or straw will not make cheese equal to that from grass and grain, but it can be made to cure in the same time."

Two Acres to the Cow.

An Iowa dairyman, living near a large town, says that he does not want more than two acres of land for one cow, and he prescribes a rule: "By taking say, ten acres, divided as follows: three acres to sweet corn for soiling, three acres sown early to Hungarian or oats, two acres to pumpkins, one acre to carrots, and one to mangolds, ten acres to pasture and ten for a meadow, fifteen cows and their calves could be kept comfortably. This ground used for oats or Hungarian can, after the crop is taken off, be plowed up and drilled thickly to corn fodder about the middle of July, and one acre at least of the early-sown sweet corn ground could be sown to turnips, and all the potatoes needed for family use, or some field corn could be grown between the pumpkin rows. This don't seem to give room enough for pasture, but remember that with oats, Hungarian, or early sweet corn, soiling will dispense with the need for pasture, while the meadow, if part be in clover, will furnish good late grazing. And the corn-fodder alluded to will out-yield any man's expectations who never tried it. In fact, this whole programme will, if the land be rich, produce astonishingly heavy, and here is where the charm comes in."

And then he argues this: "My reasons for preferring this high-toned method are, we pay taxes on less acres, a small farm is exempt from execution, less fencing is required, shorter distance to travel, first-class cultivation is absolute, noxious weeds and washed gullies are not master of the situation, and though an innovation upon long-established usages, is setting a good example.

"The objections are that it requires too much labor, and that land in Iowa is not high enough to warrant so much concentration. I reply, 'no excellence without labor,' and we need more concentration, and that the great error of

Western farming is spreading over too much land. We ought to have smaller farms and better culture. Where land is cheap with a distant market, of course such management would not be wise."

Winter Dairying.

No one who has carefully studied the subject doubts that fair profit may be realized from winter dairying. But to make winter dairying profitable, as careful attention must be paid to details as in summer. In summer prices are low, and the great difficulty lies in preserving a temperature low enough for the best condition of the milk, cream and butter. In the small dairies, this is especially true. In winter attention must be paid to the necessity of keeping temperature equal—that is, that it does not go too low. Not only this, but the cows must be so kept that they shall have ample and regular feeding and plenty of water, and the water must be considerably above the freezing point. As to the bodily comfort of the cattle, mere sheds will not do. The cows must be stabled where temperature may be regulated, and where the feeding facilities are perfect. By this costly structures are not meant. As much comfort may be obtained in the rough structure that the farmer may improvise as the most costly. Nevertheless this must be at a greater comparative cost, as a matter of course, in the feeding and care. This one thing must, however, be observed. There must be nothing slack in the matter of care and cleanliness, either with the cows or in any of the operations connected with the milk, cream and butter.—*Farming World*.

Dairy Notes.

No animal will ever have "hollow-horn" whose system is fully nourished.

A little extra feed will cause a good flow of milk late in the season, and this fall milk will produce from 15 to 20 per cent. more butter to a given quantity than in June or July.

An experienced dairyman says he would prefer to spend all the proceeds of the dairy for feed during, say, February, March and April, and look to the balance of the year for profits, than to slack up on feed, even with dry cows.

The rain storms of October are often such as cows would be better to be protected from, and this is easily done by putting them in stables. Those who have tested it find the shrinkage of milk very large when cows are exposed to storms.

Fall-made butter is always preferred to that of summer, because, the weather being cool, the milk is kept at the proper temperature to raise the cream in the best condition, making butter of great solidity, and the grasses that start after the fall rains give it a fine flavor.

Grains are valuable as a substitute for roots or any other succulent food, but while stimulating in the production of milk, they are deleterious when given in large quantities, or for a lengthened period, and they are moreover an improper food for cheese or butter-making dairies.

We may feed all we choose of the wrong kind of food, and it will not better the condition, for good blood cannot be formed without complete digestion. If the animal is fat and indigestion exists, the condition points to the necessity of moderate feeding, even of the proper kind of food.

The exposure of cows for an hour or two on cold days in getting water, causes the consumption and loss of many dollars' worth of food during the winter. Besides, it is much better that animals should be able to drink without interference from others, and this can be done only by conducting the water before the animal as it stands in its stall.

Ground oats—whole oats are not digested—are an admirable diet, and from their composition well suited for milk production, either on a butter or a cheese farm. Beans and peas cannot be too highly estimated; both are believed by cow-keepers to "force milk;" they are well adapted for use where milk is sold or cheese made, and in conjunction with potatoes, roots, grass and soiling.

Correspondence.

A Few Points on the Tariff.

Kansas Farmer:

If you will permit, I will be brief in presenting a few points on the tariff. I notice in your issue of the 6th inst. you say: "Protection did not destroy our commerce, nor our ship-building. They are not protected." Now, why do you say that? Don't you know that iron ore, coal, copper, lumber, in fact everything that it takes to make a ship, is burdened with a tariff tax? You can not get a piece of rope or a rivet without paying a bounty to the maker, or an import tax if imported. So, if all the component parts of a ship are protected, the ship is protected. True, you won't find the word ship on the list of taxed articles; but you will find cloth, copper, steel, etc. The Englishman has free material to make his ship with, and hence he makes a cheaper ship and a better ship, and he who buys goes to England because he can get there for \$30,000 that which would cost here perhaps \$50,000 (unless he wants to be a coaster under our navigation law). In 1855 the ocean trade was 75.5 per cent. carried in American vessels; in 1881 it was but 16.2 per cent. When protection commenced our commerce dwindled until now we have almost none.

Again you say "we have beds of iron and great valleys of coal, and exhaustless ledges of limestone, and not a cent of tax on any of them." The tariff on coal is 75 cents per ton, on iron ore 75 cents per ton, undressed stone \$1 per ton. You will find upon looking at the tariff act few articles escape. Don't you notice how the coal monopoly of Pennsylvania combine and put up the price, and in New York city and Boston—everywhere I might say—consumers are compelled to buy it at the monopoly price, when if coal was free this could not be done, because Nova Scotia is ready and willing to sell us a splendid article, with water navigation, making it very cheap, if it was not for the tax.

You say that agricultural implements "are as low in price here as similar implements of like quality are any where." Yes, and are not many of the large implement houses failures? This is another protected industry, a child of protection; yet millions of dollars have been lost at it.

It is the policy of these fostered industries to have two prices for their goods. For instance: When sewing machines sold here for \$65, the same machine was made by the same men and sold in London for \$25. Saws that we pay \$1 for are shipped to Canada and sold for 85 cents and pay 30 cents duty to get there. This thing of jumping at conclusions, and a general lack of careful investigation, is the reason that the farmer is taxed until he can scarcely subsist. Look at lumber, cloth, steel, at any article from a cradle to a tombstone, and you will find a tax put there to grind the laborer and farmer.

Ottawa, Kas.

E. HARPOLE.

REMARKS BY THE EDITOR.—Our good friend Harpole, like many other persons who think they believe as he does, overlook a very important fact—a foundation fact, indeed. The tariff taxes on raw materials which they talk about are levied on the *foreign* article, not on the home article. Our iron, copper, lead, coal, limestone, timber, cotton, wool, hemp, flax, etc., all are free from tariff taxes. Our correspondent says "the Englishman has free materials to make his ship with." So has the United States man. John Roach used American iron, American coal, American tools, and built American ships throughout from American materials all free to him as the Englishman's materials are to him; still Roach's ship cost about 12 per cent. more than a like ship of English make.

The Pennsylvania coal monopoly operates on anthracite coal largely, and that class is not subject to tariff duty. It is on the free list, like tea and coffee. The best iron is made from anthracite coal. It is bituminous (soft) coal that is subjected to a tariff duty of 75 cents a ton when imported, and that in no way affects Western people. If there was no duty on coal, 75 cents would not carry a ton very far from the wharves of New York, or from the mines of Nova Scotia. Long before it would reach the Alleghany mountains the 75 cents would be

exhausted. If the duty was removed from foreign coal, the only perceptible result, probably, would be giving that much advantage to importers. It is not at all likely that there would be any considerable reduction in the price of coal. The same is probably true as to lumber. The quantity of both articles produced by our own people is so large in proportion to the quantity imported as to control the price. We produce about forty feet of lumber for every foot imported, and as to coal, the difference is much greater.

The sewing machine case comes under the protection of our patent laws, not the tariff laws.

We hope our friend will not forget that whenever an American ship builder, or cloth-maker, or manufacturer of any kind of goods wants free raw materials to work into his proposed product, he can get them by simply using American materials. They are all free. Some dye stuffs, and some chemicals which are not produced here may be needed, and they are on the free list.

Query: Why are persons who clamor for cheap foreign goods not satisfied with foreign ships to carry ocean freight? Do they not perform the work cheaper than American ships would do it?

Interesting Letter from Brown County.

Kansas Farmer:

After the parching hot and dry summer we are having an exceedingly pleasant autumn, with seasonable rains and growing weather. To-day is the 8th of October, yet we have no frost here, and the most tender garden vegetables are luxuriating in the verdure of spring. The fall pasture is excellent, and abundant in tame grass meadows and pastures. The prolonging of the growing season vouchsafed by a kind Providence after the short crop will greatly aid us to carry stock through in good condition.

Stock is generally doing well. There were several fatal cases of blackleg in calves soon after the pastures revived. Hog cholera is also spreading again in the north part of the county. Several farmers lost largely, a few slightly; but the disease does not seem to spread as badly as two years ago.

Not much wheat is sown in these parts, but a considerable acreage of rye, some of which is forming good pasture now. The copious rains of August and September did not replenish all the wells that were short of water. But as it rained all day and is still raining (three inches of water so far) it is to be hoped that the water supply will not lack now.

The past summer has been hard on orchards, both on trees and fruit. Apples fell off more than usual, which will make keeping apples more scarce.

Our fair closed yesterday. The exhibits were fairly good, yet there is room for improvement to give a full exposition of our county's products.

So far as my observation goes, the crop reports of the KANSAS FARMER correspondents did not miss the mark much.

It seems to me that in answering the tariff questions of Mr. Gill, the editor got his ideas a little confused, or perhaps he got a little excited. I will only call his attention here to two facts, though more could be mentioned:

First.—In answering question No. 1 he ignores the fact that no part of the debt matures this year, and also the fact that the other sources of revenue still remain.

Second.—In answering the second question he says it is "past finding out." How can this be? June 30, 1888, is in the future, and not in the past. And it certainly will be ascertained when the time comes. I hope the discussion of the tariff will be continued, and that in such discussion the developing of facts and not the establishing of opinion be the principal aim of all those that take part.

H. F. M.

H. F. M. is mistaken. The questions asked were answered, and the other matters referred to by H. F. M. were mentioned in the answer, though not inquired about by Mr. Gill. The question was not only answered, but answered fully. Look at it again. Here is the question:

Question No. 1.—Is it necessary, in order to pay the expenses of our government, that we levy a tariff tax of 47.7 per cent. on imports?

The first thing said in answer to that was: "Let us see. The net ordinary expenses of the government for the fiscal year ending June 30, 1886, (the latest official figures we

have) amounted to \$191,902,993.53." If we had stopped there the question would not have been answered, because the question itself is not well put; that is to say, what it assumes to be true is not true. It assumes that "we levy a tariff tax of 47.7 per cent. on imports," when the truth is that we levy a tariff tax on only about two-thirds of our imports, and the average per cent. on that portion for the year we selected (1886) was 45.5. The answer said, further: "It must be remembered, however, that the actual amount of duties collected during the year was only \$189,410,448." To raise that amount on \$621,875,835 (the total value of the importations for the year) would require a general levy of 30½ per cent. In other words, a levy of 30½ per cent. on all the goods imported would have produced the same amount of revenue that was raised by levying 45½ per cent. on a little less than two-thirds of the goods, admitting the other one-third free, as was actually done. Our opinion that payments made in 1886 on the public debt were properly made a part of necessary expenses has foundation in fact; but our correspondent's assumption that we levy a tariff tax of 47.7 per cent. on imports is wholly unfounded. Still, in order to pay what was paid and which every person then believed was properly paid, 47.7 per cent. on our total importations would not have produced sufficient revenue. Our readers all know that we have been advocating a reduction of revenues ever since we got near the end of the presently maturing bonds, and we have pointed out practical methods of doing it. We did need to take note of the internal revenues, because Mr. G. says he does not desire that revenues for the government shall be raised in any other way than by duties on imports. As to the surplus, it is and will be impossible to state accurately what it will amount to at the end of the current fiscal year, until that time is here.—EDITOR.

About Milo Maize.

Kansas Farmer:

In your issue of Sept. 1st, Mr. J. H. H. Wurtz asks what success Kansas readers have had cultivating milo maize and Kaffir corn and rice corn. I had hoped that several persons would give their experience. Especially I would like to hear through the KANSAS FARMER what success those had who procured seed of milo maize of me last spring. I did not grow any rice corn this year, as milo maize is so much superior, and then I get the use of the fodder as well. My experience with rice corn was that when the seed had matured, the fodder was of no account. I do not know much about Kaffir corn, but from what little I had this year, and the chance it had, that for the seed it is all that is claimed for it, and possibly as good as milo maize for the yield of seed. But for the fodder I do not think it as good as milo maize. I put in ten acres of milo maize this year, eight acres of it the last of April and two acres in June. I cut five acres of it in July. It made all of three tons cured feed to the acre, and it is now five to seven feet high again. It ought to have been cut three times, but I was too busy to do it. Had it been cut three times, I am satisfied it would have made nine or ten tons cured feed to the acre, and that notwithstanding the chinch bugs and drouth, which were so bad that my corn, close beside it, will not make over ten bushels to the acre. The five acres let stand for the seed would make forty-five to fifty bushels to the acre if cut to-day, October 8th, and if the frost holds off ten days or two weeks, it will make more, as it is not all matured yet. It stands seven to eight feet high, is rank and green yet. Cattle and horses like the fodder after the seed has matured, and eat it up close except the thick part of the stalk. The kind I have is the white. I understand there is a yellow kind. I do not know, but do not suppose there is any difference, except in the color.

It will be remembered that I said in my letter in the spring that I expected to have enough this year to let all that may want it have it at a low price, and I would like every reader of the KANSAS FARMER to try it. I will pick out well matured seed and thresh it by hand, and send one-half pound, postage paid, on receipt of six two-cent stamps; one pound on receipt of eleven two-cent stamps. Or any person wishing a quantity,

I will supply it at two cents per pound, purchaser paying freight or express, and cost of sacks in which to ship. But cannot supply it at two cents per pound in less lots than fifty pounds. I hope every one will try a little, especially those who grow so much cane for feed. I do not think too much can be said in its favor. If any one would like to see a sample of seed, I will send a good sample on receipt of five cents; or a sample head on receipt of ten cents. And will answer any questions on receipt of stamped envelope.

R. B. BRIGGS,
Lock Box 205. Great Bend, Kansas.

A Few Words About Chester Whites.

Kansas Farmer:

I see another instance where our Chester White hogs are superior to the black hog. In April, 1887, a carload of Chester Whites at Union stock yards brought 10 cents per 100 pounds more than the black; also in June a carload brought 5 cents per 100 pounds more; also on the 7th of this month 5 cents per 100 pounds more. Now, Mr. Editor, how do you think your State Fair board of directors feel over these reports, as they by their discrimination say the Chester White is only half as good a hog as the black? Would it not be well to reverse their premium lists next fall, and we will bring them something to look at in the hog line. It certainly must be up-hill business to maintain a breed where you have to give twice the advantage over others and then know they will not bring as much on the market by 5 to 10 cents per 100 pounds. I fear your State Fair board is under the influence of the black hog men as well as our board is under the committee system. This year I am told each man judged his own sheep and swine. Evidently they spent all the money they made at the fairs in the northern part of the State, at Olney this year, and every exhibitor got a small pittance and came out from two to six thousand behind. But can you expect anything more when the board must have from September, '86, to January, '87, to decide whether a sire of his get must always be a boar, as they had in my case? I showed a herd in '86 at the State Fair (and got my little ribbon) that averaged over 600 pounds each, under 18 months. The sire, Gen. Grant, weighed 790 pounds, but was castrated in July, '86. Some of the board (the then President, and seven others,) thought he must always be a boar to be the sire of his get. I do not wonder the fair was a failure. The new President says there will be no State Fair next year at Olney—a little town by the wayside of one or two railroads. Geneva, Ill. T. B. EVANS.

The Kansas Silk Experiment.

Kansas Farmer:

When what is known as the "silk station bill" appropriating \$13,000 was passed last winter, we were told it was for the purpose, among other things, of demonstrating the feasibility of growing silk cocoons and reeling the silk of same. A look through the silk station at Peabody would indicate some progress had been made. Judging by the exhibit made at the State Fair, whether the fair exhibit was intended to show this year how silk was probably reeled in the days of Confucius or some other notable "heathen Chinese," and that next year or some other time it is intended to exhibit the power automatic reel now used at the station, I don't know; but it is clear in my mind that the station owed the tax-payers of the State an educational exhibit at the State Fair showing the progress that had been made and the feasibility of the operation of reeling. No exhibit of reeling will be made at the Kansas City Fair and Exposition, although the association proffered to pay expenses, and a majority of their visitors are expected from Kansas. The Commissioners will not allow the Superintendent, Mr. Horner, to contribute a paper at the Farmers' Congress on silk culture and its relation to other American farming and industries, although asked to do so.

In view of these facts I would ask the management of the silk station whether I and other tax-payers and farmers were mistaken in believing the intention of the bill was for the purpose of educating the people as to the practicability of producing silk cocoons and reeling the silk of same, or was the intention at the other end of the bill like most of our subsidized flour mills proved to be. If the station hopes for further aid, or

if it pretends to be an educational institution for the people of the State, a show of the working of the automatic reel at the principal fairs would seem to me the proper thing. If, on the other hand, it is wanted to disgust and discourage people, the plan now being pursued I think admirable and sure to make the State drop the whole thing, and then possession of the plant will tell. I with other tax-payers would like to know why a respectable educational exhibit has not been made, or are we to look for "No Admittance" on the station door in the near future.

TAX PAYER.

Peabody, Kas., Oct. 10, 1887.

Tariff and Prices.

Kansas Farmer:

Your article about the tariff some time ago, headed "Speak Truth or Say Nothing," should be printed in large type and hung up in your office. There are many manufactured articles that would be cheaper in price if we had a revenue tariff in place of a protective tariff. In crockery, if a plate is now 40 cents with a 60 per cent. tariff, it would be worth 27½ cents in a 10 per cent. tariff. Our window glass would be much cheaper if the tariff was only 10 per cent.; so with ready made clothing, both wool and cotton. Nails, saws, files, and other articles made of iron and steel; sugar, rice, and various other articles would be cheaper if the tariff was lower. You claim competition keeps the price low in the articles we manufacture. We do not always have fair competition, and likely will not have until we get our protective tariff to a revenue tariff, and then there will not be so much chance to form rings and monopolies.

JONATHAN S. GOOD.

Canada P. O., Kan.

Notes from St. Louis Fair.

Special Correspondence Kansas Farmer:

This fair was the most extensive of any visited this season. There is so much of it that, to put in less than a week's time, the visitor cannot feel that he has seen the fair. The stock exhibits are simply immense, and many a man's whole exhibit has failed of a premium, when the excellence was hard to surpass. In fact, it is a matter of difficult judgment to know where the ribbon should belong. Therefore all parties whose names are mentioned have stock very commendable; otherwise they would not have been brought here. The visitor and purchaser is surprised to learn how few the animals are that are not sold or spoken for that are intended for sale and on exhibition; but the United States is a big territory and that is the market for stock on exhibition here. Among the subscribers of the KANSAS FARMER who had exhibits here worthy of special mention are J. M. & F. A. Scott, of Huntsville, Mo., breeders of Berkshire swine and Southdown sheep (their advertisement graces the columns of this paper), who are showing 17 pigs and 14 sheep, and take 8 prizes. H. C. Stoll, Beatrice, Nebraska, breeder of Poland Chinas, Chester Whites, Jersey Reds and Small Yorkshires, and advertiser in KANSAS FARMER, showed seventy head and as usual carries off his share of the ribbons. John Collins, Clayton, Mo., breeder of high-class Berkshires, shows six head of good specimens and took some ribbons on the same. J. J. and S. W. Renfro, Collinsville, Ill., showed thirty-two Berkshires. This firm will soon come before the KANSAS FARMER readers in an advertisement and tell you about the merits of their stock. J. H. Eaton, of Bucyrus, O., breeder of Chester Whites of choicest strains, shows 29 head and wins two premiums amid the strongest competition. Also S. H. Todd and C. W. Baker, both Ohio men, showed Chester Whites. Lampe Bros., Vanwert, Ohio, breeders of "gilt-edged" Poland Chinas, were here, making the third time I have reported the honors they won. They won sweepstakes on Aged Boar, with that superior sire, "Seldom Seen," 10051. Look out for their advertisement soon.

Among the other exhibitors who showed swine was T. A. Hubbard, Wellington, Kansas; W. C. Norton, Aldenville, Pa., Yorkshires. I failed to learn what ribbons they won.

In the draft horse department, I find Stericker Bros., Springfield, Ill., importers and breeders of English Shire, Clydesdales and Cleveland Bays, show twelve head and take first on three-year-old stallion for all purpose

horse. And Vertner takes second with Cleveland Bay stallion Golden Crest; first on three-year-old English Shire mares.

Collier & Hitchcock, Percheron Breeding farm, Bridgeton, St. Louis Co., Mo., showed eighteen head. This firm has some splendid specimens of this breed, especially of the Closer and Brilliant strains.

Dillon Bros., Normal, Ill., breeders of Normans, showed eighteen head, principally of their own raising, of which they make a specialty, thus enabling them to supply their customers with hardy, acclimated stock, and sure breeders. They carry off three out of eleven premiums offered.

Wabash Importing Co., Wabash, Ind., importers and breeders of Belgian draft horses, were here with seven stallions and won three prizes.

Robert Dickson, Lenzburg, Ill., shows two general purpose stallions of fine appearance and action, weighing 1500 lbs. each. These stallions are stylish and for sale, and will please any one wanting size, style and action combined.

In the cattle department, I. S. Haseltine, Dorchester, Mo., importer and breeder of Red Polled cattle, showed twenty head and took five premiums. H. E. Bridge, of Kirkwood, Mo., made a show of seven head of Jerseys, made some good sales, and adds to head of herd, Prince Charles Van; also the females Happy Bell, Kins Peggotty, Duke's Mystic, and Fulga 3d.

Peter Raab, Indianapolis, Ind., showed sixteen out of a herd of sixty Jerseys, wins second on aged bull, Duke of Warren 3996, first on yearling bull Jessie's Pogis 16,221, second on bull calf, first on yearling heifer first on younger herd.

Stockwell & Lightner, Chester Center, Ia., breeders of Holsteins, made a showing of twenty-four out of a herd of seventy, and took three prizes, consisting of young herd premium, second on yearling bull, first on yearling heifer.

Gus Head, Alton, Ill., showed eleven head out of a herd of forty, Griff 3d standing at head of herd is 15 months old and weighs 1350 pounds; sold stock here to go to Arkansas and Mississippi.

S. F. Douglas, Millerstown, Pa., shows thirty-one Holsteins and wins four prizes.

Bacon & Campbell, Manchester, St. Louis county, Mo., show thirteen head of excellent Holsteins out of a herd of eighty-eight; they make sales of six animals to go to different parties. This firm expect to have a public sale about the first of November, and will inform our readers in due time. Send for their catalogue.

In the machinery department there were a great many new contrivances displayed, such as an attachment for self band cutter and feeder for threshing machine, many styles of corn cutters and fodder cutters, threshing machines, etc., etc. The Victor Manure spreader attracted a great deal of attention from the farmers. Several kinds of fence building machines were exhibited, among which was the noted Lowden's Perfection. This practical, simple and durable field fence machine for making wire and picket fence in the field was on exhibition, and attracted the closest attention. The leading feature is its low price—only \$12. Write for circulars. Address L. C. Lowden, Indianapolis, Ind. S. S.

Let your boy own a colt. Let it be a blooded one if you can afford it—at least let it have a good sire. Encourage the boy to keep it in good condition and handsome in appearance, thus getting him accustomed to habits of care which will stand him in good stead when he comes to handle other kinds of stock. Encourage him to develop his steed in every way except one—and that is in speedy competitions. Whatever you do, keep him out of the fair ground trot or pace, and teach him that he is not to learn how much value a good horse can be to a jockey, but of how much use it can be to a man. Nine out of ten farmers' boys who get into the speed-ring are worsted by its associations and tendencies, and we cannot close this paragraph better than by urging every father to keep his boy out of it.

For Sale.

By a grandson of Stoke Pogis 3d 2238, out of highly bred imported cows, an inbred Coomassie bull. Also some choice cows with good butter records. Bulls ready for service and will be sold very low, if taken at once. Address S. B. Rohrer, Newton, Kas.

Gossip About Stock.

W. W. Waltmire, Carbondale, reports his fourth sale of Chester White swine to W. A. L. Mason, Clyde, who expresses great satisfaction with the result of his purchases.

Attention is directed to the adv. Aberdeen-Angus and Galloway cattle for sale or trade, by A. J. Grover, Muscotah, Atchison county, Kansas, who offers a splendid deal.

The Short-horn sale of W. T. Hearne, Lee's Summit, Mo., last week, was not the most satisfactory, but few animals brought over \$100, and the highest price realized was \$175. The general average for sixty-one head was about \$73.

F. W. Truedell, breeder of Poland Chinaswine at Lyons, Kans., reports that his stock is doing well, and as a result of his adv. in the KANSAS FARMER is making splendid sales. Wise and honest breeders always prosper by advertising through the proper mediums.

Mr. M. B. Keagy, the well-known Berkshire breeder, Wellington, Kansas, writes that he got home from the five fairs attended in good shape with his stock. At these fairs he won thirty-one first and sweepstakes prizes and fifteen second prizes, forty-five premiums in all.

T. M. Marcy & Son, Wakarusa, Shawnee county, report the sale of thirteen, all roan, Short-horns to A. A. Counts, Baldwin City, Douglass county. The herd is headed by a roan Rose of Sharon bull. Mr. C. thinks that he has the only exclusive roan Short-horn herd of Kansas.

According to the Council Grove Republican, the celebrated cattle dehornor, Mr. H. H. Haaf, of Illinois, dehorned several hundred head of cattle for C. W. Whiting, of Morris county, recently. Stockmen generally will be interested in this conspicuous experiment, and Mr. Whiting should favor the KANSAS FARMER with the facts in due time.

Remember the great cattle sale to be held at 10 a. m. next Tuesday, October 25th, at the well known Fowler ranch, Maple Hill, Wabunsee county, Kansas. The offering consists of cows with calves at foot, or cows and heifers bred to thoroughbred Hereford and Short-horn bulls. Also several Hereford bulls and ten imported Short-horn bulls. The sale is held to make room for their extensive and popular Early Dawn Herefords. Take the C., K. & N. Ry. to the ranch.

We are in receipt of the sale catalogue of E. K. Rea, Millville, Mo., who will sell twenty-five head of imported and home-bred Galloway cattle at Riverview Park, Kansas City, during the Fat Stock show, on Wednesday, November 2, 1887. We understand that a better offering of Galloways has never been offered before, and especially every one who desires the fullest information about this breed should send at once for a pamphlet on the Galloways to E. K. Rea, Millville, Ray county, Mo.

Inquiries Answered.

RELIEF ON POOR CROPS.—A correspondent who rented land on cash payment inquires whether poor crops will relieve him of any portion of the payment. The laws of Kansas do not provide for misfortunes of that kind.

RICE CORN.—We have inquiry about rice corn, milo maize, Kaffir corn, etc., as to characteristics, differences, mode of cultivating them, their fattening properties, etc. These are varieties of forage plants with which we never had any practical experience, and therefore our correspondents can be answered much better by persons who have raised them. Will some of our experienced readers give the desired information? Describe the appearance and characteristics of the plants, how the seed grows, size of seed, quantity, etc., and usual modes of cultivation.

RENTING LAND.—Is it necessary to have a written contract in land-renting—renting a few acres from a neighbor who has right to straw, corn stalks, and such-like where no agreement is made?

—Such a contract as that need not be in writing. The usual and ordinary renting of land need not be in writing, though it is better to have a writing, for that, if properly drawn, may save trouble. When a person has land leased and wants to assign, sell, or otherwise dispose of his lease to any person other than the landlord or owner, that kind of a transaction must be in writing if the

lease or assignment is to continue more than one year, or it cannot be enforced in court.

TIMBER TREES.—A correspondent inquires what varieties of trees are considered "timber trees" under the timber culture laws. The law does not enumerate the list, but the intention of the law, as interpreted by the department, is that trees which are of value for commercial purposes, or for firewood and domestic purposes, are included among the "timber trees", and a good many different varieties of trees have been named, as oak, ash, elm, black walnut, cottonwood, maple, hackberry, and Commissioner McFarland, if we remember correctly, included Osage orange. Fruit trees, shrubbery, hedge plants, etc., are not included. A settler can hardly go wrong in the matter if he exercises his own judgment honestly.

Revelation and Revolution.

Revelation and Revolution. These words are not the same. It makes quite a difference where the "e" and the "o" come in. Revelation is the discovery of a new truth. Revolution is that change in usage, life and society which revelation brings about.

For instance, twenty years or more ago Dr. Humphreys began to teach the people that his Veterinary Specifics—giving but ten drops at a dose—would cure the diseases of domestic animals. This was a new truth; a revelation—but people could not see it at first. They had to be taught, and the truth shown and demonstrated again and again. But slowly they fell in. Seeing was believing, trying was success. When people believed they resolved, and so came the revolution. As the hill-tops first catch the rising sun, so intelligent men first saw the truth and acted upon it. Now they no longer drug their stock. The bleeding, blistering, firing, balling, bottling and drenching has gone. In the place of all this the little specifics—ten drops—is used. Colics, Coughs, Heaves, Pneumonia, Pink-Eye, Founder, Lameness and Rheumatism—all are vanquished with the ten drops of HUMPHREY'S HOMEOPATHIC VETERINARY SPECIFICS. Hence the grand revolution of modern times in curing diseases of domestic animals is but the result of Revolution—or truth revealed.—Exchange.

Rev. Thomas K. Beecher accepts the green-back-labor party nomination for secretary of state for New York.

A chance to learn how to graft and get an orchard of your own growing cheaply. Here is pleasant and profitable employment for the boys and girls, as well as older people. Look at the advertisement of L. E. Benton, of Lincoln, Neb., in this paper.

A convention was held at Peoria, Ill., to consider the subject of water ways as channels of transportation. Governor Oglesby and Senator Cullom advocated the connecting of Lake Michigan with the Mississippi river by a water channel large enough to allow the passage of large vessels for purposes of both peace and war.

The Trumbull Picture Frame Factory is to be complimented in securing a fine marine painting, executed by Wesley Webber. Price \$500. For a rich treat see this picture. They also have a large variety of mouldings in natural wood, bronze and gilt; also a full line of Etchings, Steel Engravings, studies, easels and brackets at reasonable prices.

702 Ks. Ave., Topeka, Ks.

Minneapolis is the greatest flour milling city in the world. In 1885 Minneapolis mills made 4,850,962 barrels of flour; in 1886, 5,957,000 barrels. These figures cannot convey to our minds an adequate idea of this product. Nor will it really aid us to compute that it will take so many trains of an impossible number of cars to carry the product to New York. Minneapolis flour goes to all parts of the civilized world. Of the product of 1886, 2,543,000 barrels were exported to foreign countries.

A first-class pasture will present a great variety of aspects in the course of the season, says the Iowa Homestead. In the early part the blue grass and orchard grass will seem to occupy the ground. After ripening its seed the blue grass rests till toward fall, whilst the clovers, timothy and orchard grass occupy the ground; then timothy and alsike drop back, and the blue grass, orchard and red clover take possession till frost, and the first lasts as long as the ground is bare and keeps green under the snow, ready to furnish the early bite so greatly needed.

The Home Circle.

Troubled Dreams.

What was it came in the darkness,—
What vision of grief and fear?
'Tis gone! I awake in the morning,
And find you all, all here.

The trouble that cried to my pillow,
That moaned to the weary hours,
Has flown in the light of the morning,
In the breath and the sight of flowers.

And I know 'twas an ague smote me,
I bore what was not to bear;
And the foe that haunted my footsteps
Was only a thing of air,—

A shadow, a wraith of the fancy.
And now, O close and dear,
I find in the light of the morning
That still ye are here, all here.

What if ye had flown in the darkness?
What if, when the path was gray,
And my face was set to the shadows,
Ye had stolen forever away?

Ah, that had been sorrow on sorrow!
But now there is not a care;
With you at my side, my beloved,
What is there in life to bear?

Strange how we grieve over trifles,
And sigh for an easier lot,
Holding life's choicest blessings
Light, as we held them not!

Yesterday found me repining,
Weak were the tears I shed;
I slept, and I thought in the darkness
That one of my flock lay dead.

And now, in the hour of waking,
I see with a chastened sight,
The dream and the weak repining
Together have taken flight.

And I hasten with heart of gladness
The work of the day to greet,
For the service of love to my dear ones
Is service for angels meet.

—*Ida Whipple Benham, in Good Housekeeping.*

He is the half part of a blessed man,
Left to be finished by such as she;
And she a fair divided excellence,
Whose fullness of perfection lies in him.

—*Shakespeare.*

His fear was greater than his haste;
For fear, though fleetier than the wind,
Believes 'tis always left behind.

—*Buller.*

Percentage of Lost Letters is Small.

There was a time when I used to be rather caustic in my comments about the vast number of letters that accumulated in the dead letter department. I attributed it to the carelessness of the government officials and the ignorance and stupidity of the writers. No alert, intelligent man, I reasoned, would misdirect a letter. I have different views about the matter now, owing to an experience of my own. It convinced me that I could be stupid, too, and that my alertness was not as keen as I fancied it to be. I had occasion to send a letter to a certain number on Market street, Wilmington, Del. Receiving no reply, I made inquiry and discovered that the letter had not been received. It wasn't owing to any fault of mine, of course! The postoffice was to blame; it was the result of turning out experienced clerks and putting in inexperienced ones—and all that. A rigid search was instituted, and I found that the letter had not reached its destination because I had written Market street, Philadelphia, instead of Market street, Wilmington. I had done it mechanically; it came so natural; Market street, Philadelphia, was so pat in my mind that I could not get it out of it. In fact (and though you may laugh at me) I must be candid enough to say that a month later I directed another letter to the same friend in the same thoughtless manner.

But do you know, after all, that the letters which go astray are very small in proportion to the number of letters handled? I have not statistics at hand about our own city, in this respect, but suppose that the letters lost in the Boston postoffice bear about the same relationship, and will, in fact, do for a general estimate of proportions. In that city, during 1886, there were about 5,000 instances of lost letters, out of 132,000,000 pieces handled by the carriers. You will agree with me that one letter out of every 26,400 letters is an exceedingly small percentage, and that the postoffice work is remarkably efficient. In the case of the Boston postoffice the percentage is still further reduced from the fact that of the 5,000 inquiries a number were duplicate inquiries, and that 10 per cent. of the letters were subsequently found and properly delivered. The most frequent losses are of letters containing money. In utter disregard of the conveniences provided by the government for sending money in registered letters or in the form of money orders, peo-

ple will persist in sending bank bills and coin in ordinary letters. A clerk with a propensity to steal soon comes to know by the sense of feeling what letters contain money, and doesn't hesitate to appropriate them.

When the loss of a letter is discovered, it should be promptly reported to the postal service, with all the particulars that it is possible to state. The matter is then referred to the inquiry division in large postoffices and a thorough search is instituted. When a package of merchandise is lost, it is often discovered by giving a description of the articles. The latter often become separated from their wrappers. During the holidays, the large offices have a vast pile of articles of this kind. The misdirection of letters is the most common cause of their loss, and educated people make nearly as many blunders as the uneducated, although there may be a difference in the character of the mistakes.

I am surprised to know that what is known as the "return request" envelope system is not more largely used than it is. Business houses have generally adopted it, but its importance does not seem to be fully appreciated by private correspondents. If the number of days is not specified, letters having merely an address printed on them are held for thirty days, but the specification of ten, five or three days is pretty sure to result in their prompt return in case they are misdirected or missent. Three days is the shortest interval permitted by the department, but where a letter is evidently misdirected, it is the rule in large postoffices to return it at once to the sender for correction of the address.

"Putting one's address on the corner of an envelope," says an exchange, "not only shows who it is from, but also prevents the letter being opened and read in the dead letter office. Any one who is sensitive about having his correspondence exposed would be safer as a rule by using 'return request' envelopes than by using plain ones. Wherever his letter goes, unless it is delivered to another party of the same name as the one addressed, or is actually stolen from the mails, it is sure to come back to him unopened. These return requests can be gotten up in as dainty a style as the monograms and addresses at the heads of fancy stationery, and they need not even give the name of the sender if it does not seem desirable. The number of the postoffice box, with the name of the postoffice, is sufficient, and it can be printed on the flap of the envelope as well as on the corner. It is advisable to write it on when it is not printed and there is any doubt about the correct address and prompt delivery of the letter."

If every one would use return request envelopes, the business of the dead letter office and the inquiry division of postoffices would be enormously reduced, and the public correspondingly better satisfied with the mail service.—*Observer, in Philadelphia Call.*

Sensations at High Altitudes.

The effects of the rarity of the atmosphere were felt as soon as the start was made, and it was impossible to proceed more than a few yards without stopping to take breath. The ascent was made in zig-zags, and naturally a rest was taken at the end of each direct line. At the start, to climb for eight minutes and rest five was considered making very good time. It was not long before a rest of eight minutes was required for every four of climbing, and after half the ascent was made, we rested more frequently and without exerting ourselves to sit down. We thrust our staves into the snow, and leaned our heads upon them. Drowsiness overtook us, and progress became mechanical. We moved only as spurred on by our ever-watchful guides. If left to ourselves, we would have fallen asleep. Our hearts beat with fearful rapidity, and the breath became shorter and shorter. Ringing sensations in the head, like those produced by large doses of quinine, were experienced. The most acute pains shot through the skull. Conversation was suspended, except among the guides, and their voices fell on our ears as if coming from a great distance. It was impossible to tell what progress was being made, for the top and bottom seemed equidistant all the way up. We barely escaped the most severe experience likely to occur to those who reach that high elevation: bleeding at the nose, mouth and ears. It would have been the signal that we had gone too

far, that heart and lungs refused to submit further, and we should have placed ourselves in the hands of our guides to be carried back to Tlamanca.

Our physical endurance was stretched almost to its limit by the time the head guide shouted, "Here we are! Smell the sulphur!" The whiff of sulphurous smoke which greeted our nostrils, telling that our task was nearly completed and rest was at hand, acted like a powerful stimulant. We awoke for a final effort, pressed on, and rested not until we stood breathless upon the summit of Popocatepetl.—*American Magazine.*

Fashion Notes.

A bonnet and trimmings may be worn a much longer time if the dust be brushed well off after walking.

A big bow of ribbon, with long loops, placed on the crown, with the loops falling downward in front, is the latest fancy in hat trimming.

The latest wrinkle for luncheons in New York is to serve the soup in cups instead of plates, and the china stores are selling two-handled cups for the purpose.

Wood, bronze and tawny tans are the preferred autumn tints for the principal part of suits that are made of two fabrics. Those colors combine well with almost all bright ones.

Almost any fancy article may be made of plush; it is the favorite material still; cornucopias covered with it a spray of embroidery on the front, near where the edges join, are very handsome.

Among revivals in mediæval styles of dress those for children, reproducing the garments worn by little people in the sixteenth and seventeenth centuries, are very picturesque and also very comfortable.

If creases have been formed in a silk garment which has been laid by, a remedy may be found in hanging the silk where the damp night air will reach it. It will never do to put a hot iron upon silk, as it "takes all the life out of it."

Russian crash or burlap is sixty-eight inches wide, and costs 50 cents a yard at the household art stores. It comes in all light pearl colors, and makes a good wall covering when tacked up with large-headed brass nails. Brown linen of the same sort as linen jackets and dusters are made of is also used for hanging walls, as it makes a good surface for decorating with paintings on the stuff, or for hanging paintings and etchings upon.

Industrial Education in the Minneapolis High School.

A manual training school, under the direction of Professor F. W. Decker, has lately been established by the school board of the city, in connection with the high school, and results have already been obtained that promise well for the success of this new enterprise. The object of the course is not to make finished mechanics of any definite trade, but rather to give a general training that shall serve to render boys familiar with common tools and materials of construction, and lay a good foundation for any one of the several mechanical trades.

The course serves also to correct some of the popular notions among boys that manual occupations are degrading, or at any rate not so respectable as occupations requiring only book knowledge. This result is attained by placing the manual training course on an equal footing with the other high school courses, and requiring the same attention to system and order as in any branch of knowledge taught.

The course for the present term is wood-working. A large lower room of the high school building has been fitted up with benches and drawers and a variety of wood-working tools. Each bench is provided with a full set of bench tools, and each boy has, besides, a number of edge tools and a drawer in which to keep them locked when not in use. Each boy is required to keep his individual tools in order, and all the bench tools have their proper places on a rack in front, where they must be placed at the end of each exercise. The benches and bench tools are lettered to correspond, so that it is easy to see at a glance that everything is in its proper place.

The use of the tools is taught in the following manner, it being assumed there is only one right way: The boys are each given a plane, for instance, and, after being

shown the nature and construction of the tool, they are shown how to use it properly. All this is taught to them as a class. They are then given each a piece of board and are required to produce a plane surface, each being drilled until he is tolerably proficient in the use of the tool before being allowed to go on. Sawing is taught in a similar manner. The saw is first discussed, and the reason for the teeth being shaped differently for cross-cut and rip saws is pointed out. A board is then marked with a scratch-awl and the class is shown how to saw to line accurately. They are then each required to saw to given lines until the lesson is thoroughly taught. By keeping the attention of the pupils on one operation at a time and holding it until taught, rapid and sure progress is made. After the uses of a few of the most common tools are thus taught, the boys are allowed to construct something that will bring into use only operations they have previously learned. This serves to make the work interesting, though the work is designed to be for the purposes of instruction rather than construction.

Whenever an article is constructed it is done from an accurate working drawing made by the pupil himself, and thus the value of drawings, in connection with all construction work, is taught better than it could otherwise be done.

Each pupil is required to spend forty minutes per day in the drawing room and eighty minutes in the shop. Drawing is taught in much the same manner as the use of the tools just described, and it is found that the two branches of work go very nicely together.—*T. T. Journal.*

Kerosene Lamps.

A thorough study of the subject of petroleum lamps has been lately made by Sir Frederick Abel. He suggests that the reservoir of a kerosene lamp should always be of metal, the more strongly to resist any explosive tendency of the oil or vapor within, and that there should be no other opening than that for the wick, unless so small an one that flame could hardly enter it. He further says the wick should be soft and dry when put in, and should completely fill its space, but without forcing; that it should be scarcely longer than to touch the bottom of the reservoir, and there the oil should never be suffered to be less than two-thirds of the depth, while the lamp should always be filled partly before lighting. The wick should never be turned down suddenly, and the lamp should not be suddenly cooled or allowed to meet a draught; and when the flame is extinguished it should first be lowered as far as possible and then a sharp, strong puff should be blown across, but not down, the chimney.—*Harper's Bazar.*

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The Young Folks.

Home Talk.

At the foot of the hill the milk-house stands,
Where the Balm of Gilead spreads his hands,
And the willow trails at each pendant tip,
The lazy lash of a golden whip,
And an ice-cold spring with a tinkling sound
Makes a bright green edge for the dark green ground.

Cool as a cave is the air within,
Brave are the shelves with the burnished tin
Of the curving shores, and the seas of white
That turn to gold in a single night,
As if the disc of a winter moon
Should take the tint of a new doublet!

Burned to a coal is the amber day,
Noon's splendid fire has faded away,
And, lodged on the edge of a world grass-grown,

Like a great live ember glows the sun;
When it falls behind the crimson bars
Look out for the sparks of the early stars.

With the clang of her bell a motherly brown—
No trace of her lineage handed down—
Is leading the long deliberate line
Of the Devons red and the Durhams fine;
"Co-boss!" "Co-boss!" and the caravan
With a dowager swing comes down the lane,
And lowering along from the clover bed
Troops over the bars with a lumbering tread.

Under the lee of the patient beasts,
On their tripod stools like Pythian priests,
The tow-clad boys and linsey girls
Make the cows "give down" in milky swirls.
There's a stormy time in the drifted pails,
Then girls and boys with whistle and song,
Two pails apiece, meander along
The winding path in the golden gloom,
And "set" the milk in the twilight room.

—Cincinnati Gazette.

The clouds may rest on the present,
And sorrow on days that are gone,
But no night is so utterly cheerless
That we may not look for the dawn;
And there is no human being
With so wholly dark a lot,
But the heart by turning the picture
May find some sunny spot.

—Phæbe Cary.

How Sugar is Made from Southern Cane.

You know that sugar-cane is grown the same as corn, though it must be more highly cultivated. It is cut in season and carted to the 'sugarmill, where the cane is crushed and the juice extracted. The juice or sap is the flattest stuff you ever tasted, and not at all like the sap from maple sugar. It is run into pans and boiled down until sugar is left—a wet, coarse, dark stuff, the taste of which would disgust you.

Our Southern sugar men seldom attempt to make a nice brown sugar, but barrel up the coarse stuff I spoke of and send it to the refiner, or, rather, sell it to him.

To go through a refinery you must jump from the basement to the tenth floor, and follow the process down instead of up. The sugar goes first into the basement and is dumped into the melters. These are iron cauldrons eight or ten feet across the top and six feet deep, with perforated bottoms. Steam pipes are used to melt the sugar and the liquid drops into tanks. From these tanks it is pumped directly to the tenth floor into clarifiers. These are large iron tanks, steam heated, and the liquid is now kept at a heat of 200 degrees. The next move takes it down to the ninth floor. Pipes conduct it from the clarifiers to spouts below, and at each spout is a bag made of coarse material. The liquid strains through the bags into iron tanks on the eighth floor. These bags must be kept very clean, and the tubs to wash them in are handy by, while men, stripped to the waist, do the washing.

The liquid runs from the eighth floor to the seventh, and runs into huge iron pots sunk flush with the floor. Each one of these great pots is full of bone black—70,000 pounds in each pot. Bone-black is the dust of the bones of horses and cattle, and it looks and feels like coarse blasting powder. It is a filter and a purifier. The liquid makes its way down through the bone-black to the sixth floor, and you now notice a great change in color. It has lost its dark and muddy look, and is as clean as common water. Iron tanks receive it as it filters through, and it is run off into pipes to other tanks on the fifth floor. From here it takes a boost back to the sixth floor, to go into the pans to be reheated, as the liquid is now getting cooled off. These pans are iron tanks with steam coils inside, and the syrup is boiled two hours and a half. As it comes down to the fifth floor again, it runs into the mixer, and from that into the centrifugals on the fourth floor. These centrifugals are open iron tanks, lined with brass and perforated with thousands of small holes. They make 1,200 revolutions per minute as they

turn the thick stuff into a fair grade of brown sugar. If you ever visit a steam laundry, you will see them drying clothes by the same process. The centrifugal revolves with such speed that all the dampness is thrown out through the perforations.

Close at hand, as the iron tanks go spinning around, are tubs of blue water, and the contents are ladled in, to "tone" the sugar and further purify it. It now runs to the floor below, and comes out in a hopper in which are revolving knives. These knives mix and turn and dry the sugar, and if the grade is the one the refinery is running on, the sugar is thrown on the floor to be barreled. If a higher grade is desired, it falls into a bin on the floor below, and a man shovels it to an endless elevator, and it is hoisted up one story again, and goes into the granulator. This is a large iron cylinder, kept constantly hot, and revolving like a coffee roaster. The office of this is to separate grains and further dry the sugar. It comes out hot to the touch, and runs in spouts to the floor below.

You may have seen the miller place a barrel under a spout and let it fill with flour? But this beats the miller all hollow. He must shake his own barrels to settle the contents, while in this case each barrel stands on an iron plate which keeps up a steady jolting, tilting the barrel about until the sugar packs as hard as sand. One man has charge of three spouts, and as he wheels the filled barrels off the shaker, a cooper stands ready to put in the head and crowd on the hoops. The barrels are sent up from the sidewalk on two endless chains, to which arms are attached at regular distances. The barrel rests against these arms until it is carried to a certain height, and it is then dumped off and rolls to the cooper's feet.

Now, then, you know how sugar is made—coarse brown, light brown, granulated and coffee, but three hours' tramp through such an institution reveals many other interesting facts. It is the place above all others to find perfect system. Everything goes like clock-work from the basement to the top floor. Every employe has a certain task to do, and there is no confusion. Steam works here to perfection. It melts the plantation sugar into its original state. It boils it, sends it a journey of miles, filters it, dries it, and transforms a dirty brown into snow white. It does all the lifting, hauling and pulling—it saves time and labor and weary steps.

And, too, you must forcibly realize how patient and persevering men must have been before us to study and experiment until they brought this process to perfection. The most trifling thing of them all baffled them the longest. Without bone-black our sugar would be full of dirt; but it was only by accident that it was ever used. Who would have thought the charred and powdered bones of our domestic animals a purifier for the main ingredient in our sweet-cakes?—M. Quad.

St. Elmo's Lights.

The Gulf of Mexico is prolific of electrical effects. The prevailing winds of the north Atlantic are southwest and northwest. When the southwest wind has been blowing a while it is inclined to shift around into the northwest, bringing sudden and violent changes. The meeting of the warm southern current and the cool northern one is an unfailling cause of an electric discharge. The shift in the wind is accompanied by heavy rain and vivid lightning. At such times electric flames, called St. Elmo's lights, are occasionally seen on the ends of every spar of a ship, producing the most beautiful effect, as though the spar were a candle.

Bird Legends.

Following are a few of the many bird legends that people with bright imaginations and ready inventions have connected with feathered musicians, as collated by Harper's Young Folks:

The poor cuckoo, whose mournful cry sounds so desolate in the quiet wood, is always mourning for the death of a beloved brother. The cuckoo was originally a beautiful young maiden. She caused her brother's death unintentionally, and was changed into the bird whose sad cry is an expression of her bitter grief.

The owl was also once a beautiful young girl. She was a baker's daughter. One day a good man, passing by, asked for a piece of

bread. She refused it, and as a punishment was changed into an owl. In Germany the swallow and the lark are sacred birds, and their morning song is considered a hymn.

The nightingale, you know, only sings at night. This was not so formerly. One night a nightingale fell fast asleep, and the tendrils of the vine it sat upon grew round its feet, so that it could not get away, and finally it died. Since then the other nightingales never dare sleep at night.

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The President visited Memphis Saturday, Nashville Monday, and Atlanta Tuesday.

Kansas City people are moving in the direction of a mammoth sugar refinery at that place.

Those citizens of Utah who favor Statehood for the Territory are all Mormons, the Governor says.

Signal service officers are hopeful of so improving methods as to make the service more serviceable to the people.

Mr. H. J. Newberry, special correspondent of the KANSAS FARMER, recently delivered several lectures in Southwestern Kansas on sugar making.

London and Liverpool grain market reports now refer to Russia wheat and India wheat by name—not simply wheat from "other countries."

The anarchist, Parsons, writes from his prison cell to the Governor of Illinois, saying that he does not want his sentence commuted; he wants unconditional liberty.

The President rebuked some senseless fellows at Nashville who were making remarks about the shabby appearance of some men from the country who had gone into the city to see the President and shake hands with him.

The speaker appointed to welcome the President to Memphis, was overcome in some manner, began to give way while the President was responding, and died in a few minutes after the city's guest had left the platform.

The Apache Indians occupy the San Carlos reservation, containing about 2,500,000 acres of the best agricultural land in Arizona. The Governor says they are lazy, thievish and murderous, seemingly incapable of advancement in civilization.

The annual meeting of the Missouri State Short-horn Breeders Association will be held in Kansas City, at the Board of Trade hall, Friday October 28, at 7:30 p. m. Each member is urged to go prepared to discuss some point in connection with Short-horn breeding and management.

The Governor of Arizona, in his recent report of affairs in his jurisdiction, renews his recommendation of last year that Congress make a liberal appropriation for a hydrographic survey of the Territory with a view to obtaining water for irrigating purposes by storage reservoirs.

It is proposed to erect a \$150,000 sugar factory at Topeka. This is an important matter, and it ought to be pushed rapidly to success. There ought to be at least one good sugar factory in every county in the state. They would be worth millions of dollars to the farmers of Kansas.

WHEN WILL MARKETS IMPROVE?

The continued prevalence of low prices has set men to looking in new directions for their cause and has aroused a very general spirit of inquiry as to whether markets will improve; that is, whether market prices for staple commodities will rise or whether they will remain low. Farmers feel the effects of low prices more, perhaps, than most other classes of citizens, because of their more isolated and less organized condition. Wheat is low in price, so is corn, so is beef and pork, indeed, nearly everything which farmers raise—among the staple articles, we mean—is discouragingly low; and were it not for the fact that manufactured articles also have fallen in price and the other fact that farms are the safest investment and, in the long run the most productive and most profitable property, the outlook would be much more gloomy than it is. Men who are in debt always suffer most in periods of low prices, for among the things which do not go down in value are debts and dollars. An obligation to pay a certain sum of money does not diminish to correspond with falling prices of wheat and corn, but it grows larger relatively as the means for paying decrease. If a debt is contracted when wheat is worth a dollar a bushel, one bushel of wheat is worth one dollar of debt; but if, when pay-day comes, wheat has fallen to fifty cents a bushel, then it will take two bushels of wheat to pay one dollar of debt. So it is, that farmers who contracted debts when prices of farm produce were higher, find it more difficult to pay now than it would have been then. Of course the amount of production has something to do with the matter. When crops are very large, they offset low prices to some extent. In most parts of the United States the past two years crops have not been good, and farmers have experienced the double hardship of low prices and short crops.

This matter of low market prices has been with us long enough while business has been going on as usual and the volume of trade increasing, to suggest other lines of thought than those which most people have been following in their search for causes of the existing financial conditions. Persons are apt to look at local causes for present conditions and to prescribe specific remedies for what seem to be classified wrongs. But low prices have been with us a long time; indeed, they prevail everywhere in the civilized world. We must look beyond local and particular things to find causes for conditions which are so general. Farmers in Germany, France and Britain are not in as good condition as American farmers are, and tradesmen and manufacturers in other countries are quite as much affected by low prices as are those of our own country.

Men and women who have grown to the age of fifty years have witnessed great and radical changes in the industrial world. A spinning wheel, such as women used in spinning wool and flax when many of us were children would be a curiosity to forty million of the sixty million people now living in the United States. The cross roads wagon maker's shop has been swept away. The blacksmith no longer forges his horse shoes or his nails. The house carpenter purchases his sash and doors ready made, and gets his flooring and finishing boards and all his moulding, balusters, etc., at the lumber yards, ready for use. Ships cross the Atlantic ocean in a week and they carry less fuel and more cargo than they did even twenty years ago. Iron and steel are used in place of wood in ship building.

The opening of the Suez canal has shortened the distance from London to Calcutta about ten thousand miles and reduced the cost of transportation 50 per cent. in five years. Railroads have been multiplied so that if those now operated in the United States alone were put in one continuous line, they would girdle the earth at the equator six times. And this is only about one-half the railroad mileage of the world. Transportation has been so cheapened that a ton of freight may be hauled a mile for less than one-half a cent. About 75 per cent. of the labor required forty years ago in performing the work to be done has been displaced by machinery, and vast establishments have absorbed the local workshops. One man with a team and a corn planter now does in a day work that once required three men, two boys, one team and a plow two days. One man with a good team does farm work now that required two to three times as much muscular effort when most of us were boys. It is estimated that the labor of one man one year in the great wheat-growing regions of the North-west will produce an annual average of 5,500 bushels of wheat; that the labor of another man one year will put all of that crop, except 500 bushels, into flour, that the labor of two others will deliver the flour at any one of the great cities on the seaboard, and that the work of three others will make it into bread and deliver it to the people, thus supplying one thousand people a thousand miles away with bread by the labor of seven persons, leaving 500 bushels of wheat for seed. Farmers once hauled their grain and pork in wagons to market from fifty to two hundred miles away, consuming a week to a month in the round trip. Now grain is carried a thousand to fifteen hundred miles on steam railway cars at 10 to 15 cents the 100 pounds. It was common once to drive cattle on foot from Ohio, Indiana, Illinois and Kentucky to Philadelphia for beef. In the same regions at that time wheat and corn had little or no market value, for the market was too far away.

So we see a complete revolution in methods of production. One man, on the average, does work which once required the labor of four men. Wages are higher, but the product is cheaper. This is general all over the earth among people where the arts and sciences flourish. The processes which have brought about this state of things are not confined to the people of any one nation, though, perhaps they have been more active among the people of the United States and of Great Britain than among those of any other country. It may be said, too, that greater development has been effected in means of distribution of property than in any other department of labor. Great factories, located in one end of the country drew their supplies from broad areas a thousand miles away, and sent their manufactured products out over the same lines of traffic that took in the raw material. That made it possible for farmers in the far West to make a good living out of agriculture. But with these things, and by reason of them, largely, as we believe, came low prices. They came to stay. One step ahead is never lost. Invention will multiply conveniences and helps, rather than diminish them. Labor will be further displaced by machinery; cheaper fuel and cheaper motive power are being discovered and applied; production will be cheaper, not dearer, and there will be nothing of a permanent nature tending to increase cost of production or to raise market prices.

Farmers must look these things squarely in the face and accommodate

themselves and their methods of work to existing conditions. Kansas soil is capable of heavy production; it is easy to cultivate; the climate is healthful; there is everything here which is needed to develop as rich and productive a region as lies anywhere on the earth. Take lessons from facts; improve the farm lands; raise more grain and milk and meat on less land and at less expense, and make up in this way what seems to have been lost by reason of low prices.

Let Us Keep the List Growing.

The subscription list of the KANSAS FARMER is growing larger, and the rate of growth is much faster than ever before at this time of the year. A great many of our friends appreciate the paper as they never did before, and they are saying good things about it, showing it to their neighbors and presenting its merits. We wish to suggest again to all our readers that they are personally interested in the growth of this paper, and on the utmost possible development of its influence. Every important subject of interest to farmers either directly or indirectly, will be discussed in the paper, and not in an arbitrary, opinionated, upper-tendom style; but in plain and respectful language with the object of eliciting truth. And our columns are open for our readers to express their opinions and to ask questions. This we regard one of the most useful features of the paper. In that way truth can be discovered.

We are sending out more reading matter than ever before, and it is better. The paper is better in all departments. It is the only paper of its class printed in the State; it is just what farmers need, because it is prepared specially in their interest and it is sold at a lower price than any other Kansas paper of equal size, made up of matter prepared and printed specially for it.

We have set out to get 25,000 subscribers, and every one of our readers and friends can help if they will. Our success is theirs. Give us that many subscribers and we can give you a still larger and better paper for the same money. Think of it!—Six copies one year, \$5. Let us keep the list growing.

A sample of expensive ignorance was brought to light last Monday evening in the Topeka city council chamber on the presentation of a claim by a lithographing company for printing improvement bonds. The bill amounts to \$1,600 for printing 3,900 bonds; but because of typographical errors and mistakes in spelling 2,300 of the bonds were not accepted. The council allowed \$583 on the bill.

Kansas Methodist-Chautauqua is the name of a religious paper of a high order published at Topeka, with Rev. S. E. Pendleton, D. D. editor, and Rev. P. T. Rodes business manager. Mr. Pendleton is one of the most efficient christian workers in the country, able, practical and persevering. Under his editorial management the paper will contain first-class matter. Subscription price \$1 a year. Address the business manager.

Topeka Weather Report.

Sergeant T. B. Jennings, of the Signal Service, furnishes the KANSAS FARMER weekly with detailed weather reports. We make an abstract for publication and file the copy for reference, should we ever need details.

Abstract for the week ending Saturday, October 15, 1887:

Temperature.—At 2 p. m.—Highest, 72° the 15th; lowest at same hour, 51° the 9th. Highest recorded during the week, 72° the 15th; lowest 32° the 12th. Mean for the week, 50.7°.

Slight frost the 11th; killing frost the 12th.

Rainfall.—Total rainfall for the week .32 of an inch.

The Governor of Arizona Territory says its population now numbers about 90,000. Of the Indians he says that of all the tribes in the Territory the Navajoes are the most prosperous, intelligent and enterprising, and doubtless the wealthiest tribe in the United States. They number about 1,500 souls and it is estimated that they own 20,000 horses and 1,000,000 sheep. They farm quite extensively and raise good crops.

One of the best things said by the President on his tour among the people was in response to a remark of the welcoming speaker at Memphis. It was this: "The business interests of our people are too alert and intelligent to be sacrificed or injured by selfish appeals to passion which should be allayed. They only insist that all results of the arbitrament of arms, to which reference has here been made, shall be fully retained and enforced."

The Kansas City, Memphis & Birmingham railroad is now completed, Memphis to Birmingham, Alabama, and open for business, making a continuous line under one management between Birmingham and Kansas City, and practically the only through route between the south and the west.

The passenger train equipment of the new line is unexcelled, and no efforts will be spared by the management to meet the requirements of the travelling public.—J. E. Lockwood, General Passenger and Ticket Agent, Kansas City, Missouri.

The annual meeting of the Northwestern Poland-China Swine Association will convene on Friday, October 28, in Washington, Kas., and it is the earnest desire of the officers of said society that members make an extra effort to be present. At this meeting matters of importance will be presented, and it is always a source of relief and encouragement to the officers to see a good representation of stockholders in attendance. The place can be reached by either the B. & M. or Missouri Pacific railroads from east or west, and ample accommodations will be provided for members while in the city.

Mr. E. H. Walker, for many years Statistician of the New York Produce Exchange, has joined the editorial staff of *Bradstreet's*, the well-known commercial and financial newspaper published in New York, to which he will give his exclusive services. Mr. Walker is perhaps the best informed man in the country on the statistics of grain, flour, provisions, live stock and kindred lines. He is the author of the only complete records of the kind in the country, and the inventor of the "visible" grain supply statement. With his aid, in addition to the original work in that direction which *Bradstreet's* has done and has projected, that journal must become indispensable to all interested in those subjects.

The annual meeting of the Consolidated Cattle Growers Association, this year, will be held at the Gillis Opera House in Kansas City, Mo., at 2 p. m. October 31st. The basis of representation will be the same as heretofore, namely: All associations holding membership in the Consolidated Organization will be entitled to send one delegate to every ten of their members paid for at the rate of \$5.00 for each delegate so sent. All General Live Stock or Cattle Growers' Associations not holding membership, the Governor of all States and Territories, all State Boards of Agriculture, and Live Stock Sanitary Boards are entitled to send two delegates each, without payment. All agricultural colleges and agricultural experiment stations, and all live stock and agricultural publications are entitled to send one delegate each, without payment.

Amendment of the Inter-State Commerce Law.

Hon. Thomas Ryan, member of Congress from this district, addressed letters to merchants and other persons among his constituents inquiring about the operation of the inter-State commerce law, and asking their opinions concerning it. The *Capital*, referring to the matter, says Mr. Ryan "finds that while there are few specific cases of injury resulting, there is a general dislike of the law. There have been cases where before the law a "special arrangement" concerning rates was in force, that clearly show injury to parties, but other than this there are few good instances of injury proven."

It is Mr. Ryan's opinion, so the *Capital* states, "that the clause concerning long and short hauls is the one that is most liable to work injury to Kansas, situated as she is so far from both seaboards, and that particular part of the law will be so amended at the next session as to lessen, if not entirely abolish, the evils."

The KANSAS FARMER will suggest modestly to Mr. Ryan, the long and short haul clause ought not to be repealed. It embodies the soul of the law. The "special arrangement" business above alluded to was the bane of the old system. A man or a company that had money or property to back them, could easily make a "special arrangement" with any railroad company by which enough could be made in saving of freight alone to outweigh the profits of other and poorer persons who were not able to make any "special arrangements." That special arrangement programme was rank injustice, amounting to the actual destruction of fortunes, the ruin of business. Individual men have been enriched, others have been impoverished, and towns and communities have been made to prosper or perish by reason of that nefarious "special arrangement" practice. It was that which the law intended to destroy, and statesmen ought to be quick to understand it.

If Mr. Ryan is correctly quoted, he gave a very good reason why the amendment suggested should not be made. The quotation is: "If the long and short haul clause is not repealed or modified at the next session, Mr. Ryan believes that the result will be that a southern seaport will be developed that will give us connection with the sea by means of southern railroads, the rivers and the gulf. Such a thing is only a question of time any way, as the tendency is now in that direction."

Let that kind of doctrine be preached and practiced, and let the long and short haul clause of the law stand. If amendment is made in any part of the law let it be the striking out of that part which authorizes the commissioners to suspend the operation of the law in special cases; and if any further amendment is attempted let it be in the direction of a more speedy and less expensive enforcement of the principles of justice and equality upon which the law is based. The people want that law and they want it enforced.

A Washington dispatch conveys information to the effect that the present calendar year will probably land a half million foreigners in this country. Already the number which have arrived since the 1st of January last, is about 400,000. The number of immigrants into this country has never been so great before, except in the years of 1881, 82 and 1883 and perhaps 1884. The largest number that ever came in a single year was in 1882, when 738,902 foreigners were landed on this shore. The total number of foreigners who have come to the United States in the

past century is about 15,000,000. No accurate record was kept until 1820, but it is estimated that the number from 1767 to that time was 300,000. Since 1820 and including the present year, the total will be about fourteen and a half millions. Of this number Ireland has furnished three millions, Germany over three millions, England one million, Sweden and Norway one-half million.

National Farmer's Congress.

Delegates from Kansas to the National Farmer's Congress to be held at the Palmer House, Chicago, November 10, 11 and 12.

At large—A. W. Smith, McPherson, McPherson county; Matt Edmonds, McLouth county.

First District—B. F. Wallack, Eflingham, Atchison county.

Second—L. W. Breyfogle, Lenexa, Johnson county.

Third—A. P. Sanders, Mound Valley, Labette county.

Fourth—Thos. M. Potter, Peabody, Marion county.

Fifth—A. P. Collins, Solomon City, Dickinson county.

Sixth—Capt. A. P. Balch, Cerro Gordo, Jewell county.

Seventh—R. E. Lawrence, Wichita, Sedgwick county.

State Board of Agriculture—Joshua Wheeler, Nortonville, Atchison county; Wm. Sims, Topeka, Shawnee county.

Agricultural College—E. M. Shelton, Manhattan, Riley county.

All the great railroad lines will carry delegates at one and one-third fare on the conditions following:

You take a receipt for full fare from each road over which you pass in going, and return tickets will be issued at one-third fare by each company, upon presentation of the receipts countersigned by the Secretary of the Congress.

The following rates have been secured at the Palmer House: On the European plan, one to the room \$1; two or more to the room 75 cents each. American plan, one to the room \$3; two or more to the room \$2.50 each, reporting to the clerk on arrival what plan, and whether single or double.

The Palmer House is fire proof throughout, one of the most elegant on the continent, and one of the attractive features of the great city of Chicago. Its club room, in which the Congress will meet, will seat 300 people.

Restaurant accommodations unlimited, and at any price you desire, in the house or immediate vicinity.

What is meant by the European plan is—pay for the room you occupy, and pay for what you eat at the hotel restaurant when you order it.

The American plan means your room and regular board at the hotel table.

The Secretary says: "While each State has only so many votes on roll call, yet all who will attend will be admitted to the Congress. There seems to be the most lively interest manifested ever known in the history of the association, and we would like to see ten thousand farmers in our Chicago meeting. At the same time will be the 'American Fat Stock Show,' the greatest exhibit of the kind in the world; also the 'American Horse Show,' 'American Dairy Show' and the 'American Poultry Show,' the sight of which will pay you to visit Chicago."

In the Congress will be discussed: "The Labor Problem upon the Farm," "Agriculture in New England," "Protection to Farmers," "Future Outlook of Agriculture," "Agriculture in the Northwest," "Memorials and Resolutions to the National Congress and State Legislation," "Agriculture in the South," "American Silk Culture."

American Fat Stock Show.

The tenth annual American Fat Stock Show will be held in the Exposition Building, at Chicago, November 8 to 18, 1887.

This exhibition has for its object the encouragement of the most economical production of the best quality of meat. The large premiums offered and the emulation among breeders and feeders attract in large numbers each succeeding year to the American Fat Stock Show the choicest specimens of meat-producing animals to be found on either continent. The live stock entered for competition at this show most creditably represents the best breeders of England, Scotland, and the United States.

At the same time and place will be held the third annual American Dairy Show, and the second annual American Horse Show.

The extent of the display of dairy products and appliances, as well as the uniform excellence of the butter and cheese exhibited, attests the enterprise and skill of the dairymen residing in the wide extent of territory represented annually at this show. All interested will have an excellent opportunity for the examination of the most approved appliances and obtaining information concerning the methods adopted by the practical and successful dairymen of the country.

The south half of the Exposition Building has been admirably arranged for the exhibition of horses, and all the space has been secured by the leading horsemen of the country. There will be a large and attractive exhibit of the various breeds of riding, driving and draft horses, which will be shown to the best advantage in the large ring provided for that purpose in the Exposition Building.

The entire gallery of the great Exposition Building has been set apart for the poultry exhibit. This gallery is nearly two thousand feet in circumference and about thirty feet wide, and will be occupied with the grandest display of pure-bred poultry ever exhibited in this or any other country. Enough birds have been promised to warrant the belief that more than four thousand will be exhibited at the coming poultry show.

All the railroads centering at Chicago will sell tickets at unusually low rates during the continuance of these shows.

Horner's Dismissal.

The State Board of Silk Commissioners dismissed the superintendent, Mr. Horner, some time ago, and although there has been a good deal of talk about it—some of it very ugly, too—we do not yet wholly understand the reasons for his dismissal. Mr. Morse, for the Board, published a statement some days ago, defending their action, and it is to be inferred from his language and the facts he sets forth that there was a difference of opinion between the board and the superintendent as to the powers of the board and the scope of their duties, and that the difference was so radical that the board believed the State's interests would be better served by the retirement of Mr. Horner.

We have not had a word from either side personally, and therefore we know only what other persons are saying about the matter. Mr. Horner's friends at Peabody are very much out of humor about it. An indignation meeting was held and a local paper says: "Accusations are made that the board of commissioners are, and have been from the first, rotten to the core, and while we have been unable to get at the bottom of the facts, and cannot positively state that such is the case, certain it is that such is the general belief of the public at large."

The commissioners will hardly be willing to submit to such a state of public opinion without demanding an official investigation or at least without making a very full and complete report to the legislature. Until the people in general are better informed on the subject, they will not judge anybody harshly.

Horticulture.

Gathering Tree Seeds.

Kansas Farmer:

The rainfall in the last week of September failed to start any of the creeks or increase the supply of water in some of the wells or ponds, the ground having been so dry that it absorbed the water as fast as it fell; but a rain set in from the southeast last night and continues to rain heavy at times to-day, October 8th. We are in hopes it will fill the ground so as to start the springs and fill the wells. The fall rains on the surface have made the timothy and clover fields look well. The pasture is good for this time of the year, as the rains have been followed by warm weather. Our corn, as a rule, is chaffy, on account of chinch bugs. Have been fall plowing and do not see them as thick as they were a year ago. They are not able to stand wet weather.

Your correspondent purchased a timber claim of 160 acres in southwestern Kansas. And we have been gathering tree seeds from the woods along the creeks, and as we made the effort to move in this direction we found out how little we know about this matter. Although we have seen the trees of the forest bloom and ripen their seeds from childhood to manhood, without giving scarcely a thought to the special conditions essential to the completion of the round of production. Seeds were simply seeds, affording very little interest whether they ripened in May or October. We gathered some linden the first of September, and placed it in moist sand; have been looking for hackberry seed, but have not been able to succeed, only finding a very few. They are about the size of the wild cherry, and it looks as if they would have to be put in the ground as soon as they fall from the tree. Have found a few ash, but whether of the white or red we are unable to learn. Box elder seed has not matured very well—say about one-fifth of it. Walnuts are plenty. A few of the Kentucky coffee tree beans, acorns of the burr oak, jack oak, white oak and pin oak; in fact, an assortment of all we come across; have gathered honey locust seed from a thornless tree, and am sure that they will produce trees without thorns.

We have some Osage orange trees in our hedges that have been very profitable to us for posts to use on the farm; have some now that are large enough at the butt to cut to quarters for fence posts, but are informed that the government officer at the Land Office does not accept them as forest trees.

Would be pleased to hear through the KANSAS FARMER what kinds of timber the government accepts as filling the law as regards the timber culture act.

From one of the many who are attacking the treeless plains of Western Kansas.

J. B.

Garnett, Anderson Co., Kan.

Making Blackberry Plants Hardy.

An exchange describes a method of treatment intended to make tender blackberry plants more hardy. There are no varieties, it says, or but very few of the many varieties sent forth but what can be made perfectly hardy simply by the right kind of pruning. In order to accomplish this very desirable object it is necessary to commence pruning when the plant is very small, the first effort in that line being the cutting or pinching off the end of the

plant when it is from eight inches to one foot in height. Lateral branches will put forth immediately so that in four weeks' time they will be from six to ten inches long. Cut off the tip ends of these, and a very good instrument to do this with is a common corn-knife, and every blow should be struck in a direction away from the body of the plant, never toward the plant. In four or five weeks trim off the new laterals as above directed, and so on during the growing season; you have then made from four to six trimmings and each plant if it has room to grow, could hardly be covered by a two-bushel basket. The result of this repeated trimming is to make the branches almost like so much hard, seasoned wood, and they go through the winter without being damaged except, perhaps, the very tip of the last growth.

A Cure for the Currant Worm.

I think we never had a fruit pest whose devastations have been more complete and its ravages more universally deplored than the currant worm. The currant was a staple article in every family, entering largely into the make-up of a variety of palatable dishes, and constantly used as sauce upon the table, and there was such an abundance everywhere that if one had no bushes in his garden the neighbors were always ready to supply his needs. But now you may travel for miles through this region and not see a bush in one garden in ten. Every one became disgusted with the work of the worm, and being afraid to use hellebore, and knowing no other remedy, they dug them up and put the ground to other uses.

But there is a very sure and simple remedy which costs no money, only a little work—to which those who find a reward in the beautiful appearance of their bushes, heavily laden with delicious fruit, will not object.

I have a farmer friend who has near the center of his garden a single row of bushes about four rods long. To prevent the limbs from being broken by snow or other causes, and to give himself a better chance to work among them, he had, long before the advent of the worm, been in the habit of tying them up in the fall. When the worms came he was astonished to find his bushes entirely free from them, while his neighbors' were overrun. For this he could find no reason, but continued his practice of tying, etc., but with more care, hoeing the earth entirely away from the bushes and removing it some distance; also from about the stems three or four inches deep, and with a painter's sash brush cleaning out every fork, crack and crevice, so that no eggs or larvæ might have been left on them. He fills in about the stems with compost covered with fresh earth brought from a distance, and then unties and trims his bushes and leaves them to themselves, and through all these years he has not been troubled with worms. It is a charming sight to walk beside his well-trimmed, thrifty bushes and see how heavily they are adorned with dark green foliage, thickly interspersed with long, large clusters of rich, red fruit.

There is profit as well as beauty in this caring. Currants are so scarce and the demand so great that our grocers readily pay 8 cents a pound on the stem for them. Besides all that were used in my friend's family for sauces, tarts, jellies, jams, pies, etc., he sold 193 quarts to those who came to his house

after them, at 10 cents a quart, making nearly \$20. Do you know of anything you can grow on a piece of land four feet wide and four rods long, with all the work you can put on it, that will pay you better?

In treating bushes that have been subject to attack from the currant worm in past years, they should be thoroughly cleaned, so that any eggs or larvæ may be scraped up, with an inch or two of the soil under the bushes, and carried off to a distance. If the soil is not too moist, I would suggest—not having tried it myself—a light sowing of salt each year as the bushes will stand it, until no insect will stay in the soil.—*Cor. Country Gentleman.*

Striped Beetles and Out-Worms.

How to protect plants against these insects is a serious question with many. Many florists use flats, cut out of old soap or other boxes, and from four to five inches deep, with mosquito netting tacked over them. Such boxes will last for many seasons, and, as the *Rural New Yorker* suggests, they may be made during the winter or when no other work is pressing, either by knocking out the bottoms and sawing the sides through lengthwise, or by nailing any suitable pieces of wood into squares and covering them. As soon as the melons, cucumbers, squashes, or pumpkins sprout, cover each hill with one of these, pressing the edges into the soil so that there shall remain no openings for the ingress of the beetle. This gives protection against the striped beetles and also, in a great measure, against cut-worms. Whether we use these devices or not is a question of economy each must decide for himself. For home use, where small patches of melons, etc., are raised, they appear to us the simplest and most effective remedies at present known. Where considerable areas are planted, the necessity of storing a large number of such protectors might be an objection. Still, when the time required to go over the young plants several times and sprinkle plaster, dust, or ashes upon them is considered, while even then there is no real security against loss, it seems to us that these cheap and easily-made protectors would pay for themselves over and over again before it would be necessary to make a second supply.

Unfermented Wine.

A writer in the *Pacific Rural Press* tells his method of making a wholesome beverage as follows:

"In the first place, I stem the grapes and press out the juice into a tank, letting it stand over night to settle. In the morning I rack it off and then filter, thus rendering it free from all vegetable matter. I also take a quantity of black grapes and put them in a boiler, letting them come to a boil, in order to produce a dark juice. This juice I always filter. Now, by blending these juices, any shade of wine I desire is produced, from a light pink to a deep claret color. I then put the wine in a boiler (which should be of copper, with a faucet at the bottom for convenience in bottling), and let it come to a brisk boil, skimming what rises to the surface. It is now ready to draw off into bottles, which should be standing in hot water to prevent breaking on the introduction of the hot juice. When the bottles are filled, they should be corked immediately and then dipped into melted resin, which seals them airtight.

"I think that wine made in this way

and brought into notice would soon become the most popular beverage used, taking the place at dinner that coffee does at the breakfast table."

The prettiest, neatest and most tasteful surrounding for a bed of flowers is a closely-mown lawn. The edges should be sunk at least two inches below the grass, and in large beds the centers can be raised a little. Mounds are never pretty, and rock work requires much more than an average artistic ability to construct or plant in accordance with beauty or the fitness of things.

Horticultural Notes.

Yearling trees are of course small, but desirable in certain cases; they will usually be from one to two feet in length, without branches; and a thousand of them, packed for shipment will weigh about 400 pounds.

The old way of picking apples in a sack is not the best. A basket is preferable, and a hook of some kind should be fastened to the handle by a stout cord. The hook allows the basket to be hung on a limb often, giving the picker the use of both hands.

Moss is the best of all materials for packing trees and plants, as it retains moisture for a long time and never heats. Outside of the moss, however, which is put next the roots, considerable straw is used, rye being best for the purpose. The straw prevents bruising.

Trees from distant nurseries can be ordered safely in the fall, and if packed properly they will come in the best condition. As there will usually be no special hurry, they can come by freight, and the transportation will not be very expensive. They carry best in boxes.

Evergreens made of the ends of the smaller branches, and mainly of the ripe one-year-old wood, but with some kinds a little of the two-year-old may be taken at the base of the cutting. The cutting should be from three to four inches long, and the leaves of the lower half cut away and the lower end of the cutting made smooth with a sharp knife.

Sand is preferred to soil in which to raise cuttings of evergreens, and it may be put in boxes of convenient size for handling, or in large frames, but boxes will be found most convenient, as it enables the operator to change his cuttings from one place to another should it be found necessary to secure a proper temperature. The boxes used may be four or five inches deep and eighteen inches to two feet square, and when filled with moist sharp sand they are ready for use.

A correspondent in Missouri writes, that he has hundreds and thousands of young hickory trees with stems from an inch to six inches or more in diameter, growing on his farm; and he says if these can be grafted with choice pecans, or with such varieties of the common shell-bark hickory as Hale's paper-shell, they would soon yield him a handsome income. That such trees can be grafted with choice varieties is certain, but the best mode of performing the operation has not as yet been fully determined.

Do you suffer from scrofula, salt rheum, or other humors? Take Hood's Sarsaparilla, the great blood purifier. 100 doses one dollar.

A Proclamation!

Dr. J. Guy Lewis, Fulton, Ark., says:—"A year ago I had bilious fever; Tutt's Pills were so highly recommended that I used them. Never did medicine have a happier effect. After a practice of a quarter of a century, I proclaim them the best."

ANTI-BILIOUS
medicine ever used. I always prescribe them."

Tutt's Pills
Cure All Bilious Diseases.

Mustang Liniment

MEXICAN MUSTANG LINIMENT, for MAN and BEAST. Greatest Curative discovery ever made.

Mustang Liniment

MEXICAN MUSTANG LINIMENT should always be kept in HOUSE, STABLE and FACTORY. Saves loss!

Mustang Liniment

MEXICAN MUSTANG LINIMENT, applied vigorously is death to Swinney, Wind Galls & Sore Backs!

Mustang Liniment

MEXICAN MUSTANG LINIMENT cures all ailments of HORSES, MULES and CATTLE. Outward treatment.

The Poultry Yard.

Raising Ducks Without a Pond.

As a fit supplement to our article on ducks last week, we give here the experience of an English correspondent of *Fowls for Pleasure, Prizes and Profit*:

In the spring of 1885 I purchased several settings of duck's eggs, which I placed under common hens, the result being most satisfactory—one setting of eleven, after traveling 160 miles, produced eleven ducklings. All my ducklings were allowed to roam in the garden (about seventy feet square) until they developed an unfortunate liking for the young peas, which once having tasted they ate with surprising rapidity. From that moment they were enclosed in a space about fifteen feet square, and during the whole of their lives they have never again had any freedom, or a larger quantity of water than is contained in a zinc bath holding about two and a half pails, which is cleaned out and refilled every two or three days; upon this they have lived and thrived. From the various broods I selected a drake and two ducks as my winter stock; these latter commenced laying the 11th of February, 1886, and laid seventy-nine eggs; and the drake for size and cleanliness, would favorably compare with any of his more water-favored brethren. With precisely the same accommodation, I this spring increased the number to ten (four being hatched as late as October), three were sold and one died about the middle of April, and during the season I have had one hundred and sixty-nine eggs, and one duck still lays each morning. I have not set any of their eggs with the exception of three which were laid in the setting duck's nest; these transferred to a hen produced two healthy ducklings. One duck set in the same run as they all lived, and from eight eggs hatched eight ducklings, all of which (now a fortnight old) are strong and healthy.

This year in the same manner, with a bath about half the size, I have reared twenty-one ducklings with only one death, twelve of which have been killed at the ages varying from nine to twelve weeks, and selling at an average price of 7s. 6d. per couple; the largest bird weighing four and a half pounds, the smallest three and a half pounds. The remainder will be fit for the table within the next fortnight.

They have been fed as follows: For the first ten days, scalded bread with plenty of milk; after that they fed with the young chicks on ground oats or fig dust, and at about a month, entirely on boiled rice and middlings with an occasional meal of soaked greaves cut small, this last as a substitute for worms, slugs, etc., with which they supply themselves when at liberty, for ducks not being wholly granivorous, require a certain amount of animal food to keep them healthy. I need hardly say that greens of every description never come amiss, and lettuce, especially if whole is greedily devoured, the leaves attached to the stalk affording them greater facility for tearing them in pieces. For the first few days I never leave water within reach of the ducklings, as being very subject to cramp, I have known them to drown in an ordinary tea-saucer. They seem to me to be hardy, subject to very little disease and easy to rear, and I believe may be had in fit condition for the table at a much less cost than chickens, which seem so long on hand before attaining their full growth. If kept for profit, ducklings should be killed as nearly as possible at the age of three months, after which they lose their plumpness, which they do not regain until attaining their growth.

I have this season been unusually

fortunate with the hatching, every egg being purchased from one place where the parent birds have a pond and an unlimited grass run, and the setters, with one exception, cross-bred fowls. I have now on a small piece of grass seventeen ducklings nearly three weeks old, to be treated in precisely the same manner as their predecessors. These appear to be quite happy and contented with an imaginary pond contained in a tin baking dish, round which they will sit for hours varying their amusements by catching flies and taking innumerable baths, never seeming to want what they have never known, and apparently quite contented to remain "ducks without a pond."

Tin cans can be made into drinking fountains for fowls by cutting out of the side of each a hole large enough for a chicken to put its head in for water. They should be set in rows and kept in place by two-inch strips nailed on plank. Water can be kept clean in this way, and the cans can be supplied from a watering pot whenever it is needed. The cans may be covered by tin covers, or a light board may be put stationary at a height to allow easy handling of the cans and also to serve as a cover for them.

Poultry Notes.

Among the live stock of every farm should be a few hens.

The young fowls that are not intended for laying or breeding, should be put up for fattening before cold weather comes on.

If the merits of our large, improved ducks were better known to the ruralists and cottagers duck culture would receive greater attention and offer better results.

Chopped vegetables, such as cabbages, turnips, and onions may be fed to poultry during the winter with profit, especially if a larger supply of eggs is desired. Chopped onions are excellent for all kinds of fowls.

When confined the fowls have no opportunity of gratifying their desire in the choice of food. There are three points to be observed, which are that nitrogenous food is necessary, that too much green food must not be given, and that fowls must not be made too fat.

One of the best means of removing lice from fowls is to make them do it themselves, by having a lot of dry earth where they can dust themselves whenever they feel like it, having first sprinkled the earth with diluted carbolic acid. This acid proves too much for the lice, and they leave the premises at once, or it causes them to give up the ghost.

Among the leading breeds of domestic ducks the Aylesbury is worthy of the highest commendation. They are an improved English product, popular in their own country and fast gaining friends among American breeders. In them the farmer, cottager and fancier have a large-sized bird for market or home use, and one that is remarkably hardy and productive.

Fowls are machines to produce eggs and flesh, and we might as well expect cloth from a factory that has no wool or cotton as to expect eggs from hens not supplied with food. Liberal feeding means liberal profits; neglect means loss of what you do give them. As a rule, feed well or kill flock. This should be the rule, for the results are as sure to follow as day is sure to follow sunrise.



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A POSITIVE CURE
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PIMPLES to SCROFULA

SKIN TORTURES OF A LIFETIME INSTANTLY relieved by a warm bath with CUTICURA SOAP, a real Skin Beautifier, and a single application of CUTICURA, the great Skin Cure.

This repeated daily, with two or three doses of CUTICURA RESOLVENT, the New Blood Purifier, to keep the blood cool, the perspiration pure an unobstructed, the bowels open, the liver and kidneys active, will speedily cure

Eczema, tetter, ringworm, psoriasis, Itchen, pruritus, scall head, dandruff, and every species of torturing, disfiguring, itching, scaly and pimply diseases of the skin and scalp, with loss of hair, when physicians and all known remedies fail.

Sold everywhere. Price, CUTICURA, 50c.; SOAP, 25c.; RESOLVENT, \$1. Prepared by the POTTER DRUG AND CHEMICAL CO., Boston, Mass.

Send for "How to Cure Skin Diseases."

PIMPLES, blackheads, chapped and oily skin prevented by CUTICURA MEDICATED SOAP.

Hedge Plants by the 1,000,000

KANSAS STATE NURSERY, North Topeka, Kas.

Douglas County Nursery!

Full line of Nursery Stock for the Fall trade. Apple, Pear, Peach, Plum, Cherry, Small Fruits, Grape Vines, Shrubbery, Roses, Shade Trees, Catalpa and Russian Mulberry Seedlings, 500,000 Hedge Plants, and everything usually kept in a Nursery. Send for catalogue. W. M. PLASKET & SON, Lawrence, Kas.

777777 Strawberry Plants

For Sale. Jessie, Bubach, Jewell, Belmont, Ontario, Lida, Summit, Ohio, May King, Itasca, Parry, and all old varieties. Raspberries—Golden Queen, Mariborro, Souhegan, Tyler, with all the standard varieties. The largest collection of small fruits in the West. Price-lists free to all applicants.

B. F. SMITH, Box 6, Lawrence, Kas.

Western Home Nurseries,

DETROIT, - - - KANSAS.

Originator of SEEDLESS AND CORELESS PEAR, the best pear grown. Has never shown any blight, whatever; as hardy as an oak; the pear tree is a heavy and annual bearer of nice large pear of finest quality. Price very reasonable. Also all kinds of Fruit Trees, Vines and Berries, Evergreen and Forest Trees. No traveling agents. Correspondence solicited. Send for Price List. E. EICHOLTZ.

Red Cedars! Forest Tree Seedlings!

LARGEST STOCK! LOWEST PRICES!

Catalpa Speciosa Seedlings, Black Walnuts for Planting, Apple Scions, Natural Peach Pits. You will save money to get our lowest prices. Write for our Price Lists and give estimate of your wants. BAILEY & HANFORD, Makanda, Jackson Co., Ill.

Hart Pioneer Nurseries

OF FORT SCOTT, KANSAS.

A full line of Nursery Stock, Ornamental Trees, Roses and Shrubbery. We have no substitution clause in our orders, and deliver everything as specified. 220 Acres in Nursery Stock.

Reference: Bank of Fort Scott. Catalogue Free on application. Established 1857.

KANSAS HOME NURSERY

OFFERS

BEST HOME-GROWN TREES. Choice Fruit and Ornamental Trees of real merit for the Western Tree-Planters. Also best Fruit and Flower Plants. Water-proof. Samples by mail, 10 cents each; \$6.00 per 100, by express. A. H. GRIESA, Drawer 28, Lawrence, Kas.

850,000 GRAPE VINES

100 Varieties. Also Small Fruits. Quality unsurpassed. Warranted true. Very cheap. Sample vines mailed for 15c. Descriptive price list free. LEWIS ROESCH, Fredonia, N. Y.



BUY NORTHERN GROWN SEEDS.

WANTED—The Names of 100,000 Farmers and Gardeners to mail them Our Fall Catalogue of GRASS AND CLOVER SEEDS, ETC. Largest and most Complete Stock of Flowers, Vegetables and Farm Seeds in America. JOHN A. SALZER, Seed Grower, Box F. La Crosse, Wis.

GRAPE VINES

Headquarters and lowest rates for
EMPIRE STATE & NIAGARA T. S. HUBBARD Co.
FREDONIA, N. Y.

NURSERY STOCK.

The Syracuse Nurseries offer for the fall of 1887, a large and unusually choice stock of Standard Apples, Standard, Half Standard and Dwarf Pears, Peaches, Plums, Cherries and Quinces. Also a full line of other Nursery Stock both Fruit and Ornamental, Shrubs and Roses. With an experience of nearly half a century, soil especially adapted to the growth of trees, and growing only for the trade we can offer special inducements to Nurserymen and Dealers, and solicit their correspondence or a personal examination of our stock before making contracts for fall.

SMITHS, POWELL & LAMB, Syracuse, N. Y.

Nurserymen, Dealers, Planters!

FARMERS, get up clubs and buy at wholesale, at headquarters. We have the largest and best assortment of Fruit Trees in the West. This is HOME-GROWN stock, acclimated and suited to the West. APPLE TREES, STANDARD PEAR, DWARF PEAR, CHERRY, PLUM, RUSSIAN APRICOT, QUINCE, GRAPE VINES, CURRANTS, GOOSEBERRIES, STRAWBERRIES, RASPBERRIES, ORNAMENTAL TREES, SHRUBS, ROSES, and FOREST TREE SEEDLINGS. We have the best of shipping and packing facilities. Send for Catalogue of New and Standard Fruits. Special inducements to Nurserymen and Dealers. Correspondence or a personal examination of our stock solicited before making your Fall and Spring contracts. Send for Wholesale Catalogue. Office and Packing Grounds on Mt. Hope Ave., West Lawrence. A. C. GRIESA & BRO., Lawrence, Kansas.

Seed Wheat!

ALL THE LEADING VARIETIES that have gained a reputation for hardiness, large yields and high milling qualities. All have been tested throughout the country. EVERITT'S HIGH GRADE yields 10 bu. more per acre than FULTS. Red grain, beardless, 3/4 bu. 75c., 10 bu. more per acre than FULTS. Very scarce. Red grain, bearded, 3/4 bu. \$1.25, 1 bu. \$2.25, 5 bu. at \$2.25. DEWEY LONGBERRY. The best longberry wheat in the country. Immense yielder. Red grain, beardless, 3/4 bu. 60c., 1 bu. \$1.25, 5 bu. at \$2.25. MARTIN AMBER has made the largest yields of any wheat ever introduced. Light amber grain, smooth head, 3 pecks seed enough for 1 acre; 3/4 bu. 60c., 1 bu. \$1.25, 5 bu. at \$2.25. TRANSPORTATION charges must be paid by purchaser. RATES from Indianapolis are cheaper than from any other place. WILL SEND BY MAIL, Post Paid, 1 lb. 40c., 3 lbs., one or more kinds, \$1; 4 lbs., \$1.25, except New Monarch, 1 lb. 75c., 3 lbs. \$1.50, 4 lbs. \$2. SAMPLES to intending purchasers, 6 kinds, 15c. We are introducers of Everitt's High Grade and Martin Amber. Catalogue free. Mention this Paper. J. A. EVERITT & CO., Seedmen, 141 W. Wash. St., Indianapolis, Ind.

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Fruit Trees, Shade Trees, Small Fruits, Vines, Ornamental Trees, Etc.

TEN MILLION FOREST TREE SEEDLINGS.

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ONE HUNDRED THOUSAND TWO-YEAR APPLE TREES—Grown from whole root grafts.

FIVE THOUSAND IRISH JUNIPERS—Two-foot, SPLENDID WALNUTS, and other forest tree seeds and nuts, prime and fresh.

Full instructions sent with every order, and perfect satisfaction guaranteed. Send for full list and prices. Address

D. W. COZAD, Box 26, LACYGNE, LINN CO., KANSAS.

THE LAMAR NURSERIES.

Headquarters for Fine Nursery Stock Which is Offered at

HARD - TIME PRICES!

Dealers and Nurserymen supplied at lowest wholesale rates. Parties desiring to buy in large or small quantities will save money by purchasing our stock.

We have Apple, Peach, Pear, Plum, Cherry and Evergreen Trees. Grape Vines in all varieties, and FOREST TREES a specialty. Osage Hedge Plants and Russian Mulberry in any quantity. Write for Prices.

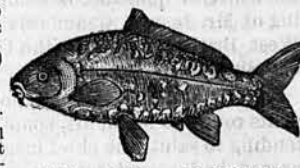
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PURE-BLOOD PARTI - SCALE

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at \$3.00 per 100.

The original stock direct from Washington, D. C. Thousands for sale by



M. FICKEL, HOLTON, KANSAS.

Regular subscription price of the KANSAS FARMER is now \$1 a year, within reach of all.

CREAM OF A WEEK'S NEWS.

General Kilpatrick is dead. His remains were interred at West Point.

Among the news from London, England, is a report of a collision between unemployed work people and the police.

Three men undertook to rob a train on a Texas road and one of the three was killed by the mail agent with a shot gun. The other two fled.

The committees appointed to receive and take care of the President at Memphis, could not manage the crowd, even with the help of special guards and the police.

About three thousand miners are out on a strike in southern Indiana. They demand higher wages and declare their intention to stay out unless they are better paid.

A report adopted by the assembly of the Knights of Labor at Minneapolis, closed with these words: "Think before you strike; don't boycott except when you can't help it."

A committee of San Francisco citizens is organized for the prosecution of men who tamper with juries. They have already convicted several persons and secured pleas of guilty from others.

One woman was killed and several other persons badly injured by one railway train running into the rear of another, near Independence, Mo., both trains laden with passengers to Kansas City to see the President.

While a passenger train was taking water at Koutz, Indiana, a fast freight train ran into it from the rear. Nine persons were burned to death in the wreck and fire which followed. A train dispatcher was to blame.

The British commission to treat with United States commissioners in relation to the fisheries question, is complete, consisting of Mr. Joseph Chamberlain, Sir Lionel West, British minister to the United States, and Sir Charles Tupper.

At Mountain Grove, Mo., on the President's route, to Memphis, some persons, intending to salute the chief magistrate as he passed, had stored some powder in cans, one of which was accidentally discharged fatally injuring two young men.

The American Bankers' association held a meeting at Pittsburgh, Pa. The membership now is 1,482, an increase of eighty during the year last past. Among the things they did was to pass a resolution favoring an extradition treaty with Great Britain providing for the surrender of defaulters, embezzlers and other persons guilty of like offenses.

The Niobrara Land and Cattle company, incorporated in East St. Louis, St. Clair county, Ill., made an assignment. Their nominal assets are \$250,000, upon which they will realize from 25 to 50 per cent. The liabilities are \$350,000. One year ago the round-up showed 30,000 fat cattle, valued at \$1,000,000. The round-up in September showed but 9,000. Their paper, held by eastern and St. Louis banks, accordingly could not be met.

A preacher in Nashville, Tenn., preached on theater-going. Among his auditors was Miss Emma Abbott, a professional actress, who, after the sermon was concluded, requested permission to say something in answer to the preacher's remarks on stage people. After she had concluded, the preacher remarked: "She is a lady, and I have no reply to make. Her remarks, however, would have been more suited to the theater than the church." The audience applauded, and the benediction was pronounced after prayer for good members of the profession.

At a meeting of the stockholders of the Western Union Telegraph company, the following figures were reported: The gross earnings for the year ending June 30, were \$17,191,909; operating expenses, \$13,154,628; net earnings, \$4,037,281; interest and sinking fund, \$533,005; balance, \$3,504,216; dividends, \$811,864; surplus from the year's business, \$2,802,352. The last feature is the vital one, as it compares with a deficit in meeting the charges last year of \$14,169. The number of messages handled reached the enormous total of 47,494,530. The average receipts per message was reduced to 80½ cents, against 30 9-10 cents the previous year; with a reduction on the cost of handling to 23¼ cents, against 24 cents the previous year. The report concludes by saying that the facilities and advantages afforded

by the addition of the Baltimore & Ohio system, it is confidently believed, will largely increase the revenues. This acquisition and others made since the close of the fiscal year and not included in the report will swell the company's plant to 162,000 miles of line and over 540,000 miles of wire. The contract with the Baltimore & Ohio railroad was ratified and the issue of \$5,000,000 new stock was authorized.

The argument begun before the Supreme Court of the United States in the Atchison (Kas.) case, involving the question whether, where a citizen of the State purchases property, makes improvements thereon, adapted to a particular private business, then free from taxes, licenses, or other restrictions, but which the Legislature afterwards considers detrimental to public morals, the State can prohibit or regulate the use of that property for the purpose for which it was designed, adapted and valuable, without making compensation, and whether such prohibition or regulation without compensation would operate to deprive such person of his property without due process of law within the provisions of the fourteenth amendment to the constitution. The original defendants were brewers and distillers, and the case against them was begun under the prohibitory liquor law.

At the usual weekly dance given the more manageable inmates of the Northern Ohio insane asylum at Cleveland, the cry of "Fire!" was raised and flames and smoke poured in upon them with bewildering suddenness. A stampede was the result, and the attendants had scarcely time to realize the situation when the room was filled with leaping fire and dense smoke. As soon as the first excitement had abated, the attendants made a courageous rush in the suffocating smoke and rescued all they could of the unfortunates who had been overcome. The bodies of six insane women who had met death by asphyxia and burning were recovered, and three more were found in an injured condition. But for the heroic conduct of the physicians and attendants, who rushed into the blinding smoke and flames and dragged the terror-stricken insane people from the chapel, the loss of life must have been terrible.

Illinois State Fair.

Our special correspondent, S. S., who has been in attendance at some of the great fairs east this fall, forwarded for publication in due time, some notes of interest from the Illinois State Fair, but they were laid aside by mistake. We give them herewith as they were written on the ground, September 30:

Our readers can depend on parties whose names are mentioned as premium takers, having stock of the very highest quality, for competition is extremely hot. I first visited the horse department. It would seem that there is almost stallions enough here to supply our country. Wabash Importing company, of Wabash, Ind., are showing nine head of Belgian draft stallions on which they carry off six premiums. This breed of horses, which is new to our country, will be right to the front when better known, combining as they do the very heavy weight with the best of action. They have heavy flat bone legs which are free from the long hair characteristic to the Clydesdale. This company is incorporated for importing the Belgians extensively. The colts bred from these stallions and native mares have convinced this company that they made no mistake.

E. S. Wilson, Olney, Ill., breeder of Clydesdale horses and Short-horn cattle, takes first premium on sire showing five best colts, first on suckling horse colt, second on 3-year-old filley. Mr. Wilson has some beautiful young stock on exhibition which were premium takers, and has horses and cattle for sale.

Thos. Tippet, Olney, Ill., breeder of Clydesdale horses and Shropshire sheep, makes a showing and takes his share of premiums.

Stericker Bros., Springfield, Ill., breeders and importers of Cleveland horses, show twenty-one head and bear away seven firsts and four seconds, also sweepstakes on both stallions and mares.

Sass & Miller, importers and dealers in French Draft and Percherons, Ancona, Ill., show six stallions, this being the third fair where they have shown this season, bearing away eight premiums.

Dillon Bros., Normal, Ill., exhibit nine-

teen head of Normans and take seventeen premiums. Seventeen of these horses were of Messrs. Dillons' own raising of which they make a specialty rather than importing.

W. L. Elwood, DeKalb, Ill., makes a showing of twenty-six Percherons and four Coachers, takes eight firsts and one second on Percherons, first on 3-year-old Coacher.

John C. Huston (Oak Grove farm), Blandinsville, Ill., shows twenty-five head of Clydesdales, takes five first premiums, three seconds and sweepstakes for best mare.

J. G. Brown, Westfield, Ill., breeder of all purpose horses, shows four head and takes three premiums.

John J. Ivey (Iradore stud), Little York, Ill., breeder of thoroughbred horses, has sixteen horses on exhibition, wins second on 4-year-old mare, first on 3-year-old mare, first on 2-year-old, second on 2-year-old stallion; takes second money in the race for 2-year-olds—half mile and repeat—first in all age race—mile and repeat.

In the swine department I find some of our old friends and subscribers whom I met at other fairs. Lampe Bros., Vanwert, O., breeders of first-class Poland-Chinas, are showing at fair after fair and scooping in the premiums as they go. They show here fourteen out of one hundred head, and take six premiums. The own the sweepstakes boar of the Illinois State fair (Seldom Seen, 10051). Lampe Bros. have taken twenty-one premiums in all at the leading state fairs they have shown at this fall. Look out for their advertisement in the KANSAS FARMER shortly.

R. J. Stone, Stonington, Ill., breeder of Oxford-down sheep and Victoria swine, show twenty-three sheep out of a herd of one hundred and fifty and take eleven premiums, also one silver medal for flock of Oxford-down ewes, shows nine head of Victoria hogs and won ten premiums.

L. C. Henly, Mattoon, Ill., breeder of Yorkshire hogs, shows forty out of a herd of two hundred and takes two premiums.

W. C. Norton, Aldenville, Pa., breeder of Yorkshires, shows fifty head and wins nine first premiums, five seconds, and two sweepstakes.

Geo. Allen & Son, Archie, Ill., importers and breeders of Shropshire sheep, show forty out of a flock of four hundred and take eight firsts and two seconds.

The firm of J. T. Thomson, of Arcana, and I. J. Williams, of Muncie, Ind., importers and breeders of Shropshires, are showing fifty-three out of a herd of three hundred, take six class premiums and three sweepstakes. This firm has shown at fourteen fairs this season and has won in all two hundred and five premiums.

E. J. Peck & Son, Geneva, Ill., breeders of recorded Merino sheep, show forty-one out of a flock of twenty-four hundred, make some good sales here, and take sweepstakes for ram of any age. S. S.

Cement for Mending Boots, Shoes, and Carriage Tops.

A cement which answers well for the above purposes may be made by dissolving pure gutta-percha in chloroform until the solution is about as thick as honey. Take a three-ounce phial to the druggist and have two ounces of chloroform put in it. To this add a half ounce of pure gutta-percha, cut in small pieces, and cork tight. Shake occasionally, and when dissolved, if too thin, add a little more gutta-percha, but if too thick, slightly reduce by adding chloroform. When brought to the consistency of honey, prepare the patch to be put on the boot by paring the edges neatly, making them very thin; scrape all dirt and grease from the under surface of the patch and also from the surface of the boot. Apply the cement thoroughly—but not too thick—to both surfaces; heat both so as to soften the cement; and when soft apply the patch, pressing it firmly to the boot a few minutes until the cement is set. Patches put on in this way are generally quite as durable and much more tidy than those sewed on by an expert cobbler. Old carriage tops can be mended in this manner by the aid of a hot iron to soften the cement.—American Cultivator.

If you have chapped hands or rough skin, use Stewart's Healing Cream. Only 15 cents a bottle. Gentlemen who suffer from a tender face after shaving are delighted with it. We only ask a trial. Stewart Healing Powder Co., St. Louis.

Death to Prairie Dogs!

EDITOR JOURNAL, Columbus, Neb.—Dear Sir: It was my fortune in purchasing land here in Platte county to have a few prairie dogs thrown in as a nuisance, and it has ever since been my wish to get rid of them. I have tried various kinds of poison, shooting, drowning, etc., but all failed until quite recently I learned that Bi Sulphide of Carbon would destroy them. It is a liquid, can be purchased at the drug stores at a cost of from 10 to 15 cents a pound by the quantity. I bought from three different parties; the best and cheapest I got from Edward R. Taylor, of Cleveland, Ohio. It is sure death to prairie dogs, gophers, squirrels, etc. Mode of applying it: Take a piece of cotton the size of a hen egg, saturate it with one-half an ounce of the Bi Sulphide of Carbon, throw it into the hole of the animal, cover the top of whole with ground, so that the cotton is loose in the hole. A gas is formed and the dogs are killed. I have destroyed my dogs on about eighty acres at a cost of \$30 and increased the value of the land \$500. One pound will do for twenty-five holes. This medicine is quickly applied and is sure death. No humbug about it.

Very respectfully thy friend,
ISAIAH LIGHTNER,
Matson, Platte county, Neb.

Boss churns at lower prices than ever at J. J. Floreth & Co.'s, 713 Kansas avenue, Topeka, Kas.

The course of business training prescribed in the Arkansas Valley Business College Journal, Hutchinson, Kas., is unsurpassed in the West.

Judging from the indorsements of the Arkansas Valley Business College, Hutchinson, Kas., from the highest possible sources, it must necessarily be one of the leading commercial colleges in the West.

The Winter Term of Campbell University, Holton, Kas., opens November 15. Classes are then organized in all the common branches, rhetoric, German, Latin, book-keeping, elocution, algebra, geometry, etc.

Prof. C. N. Faulk, of the Arkansas Valley Business College, Hutchinson, Kas., has been awarded the diploma for plain and ornamental penmanship, by different fair associations, over all the penmen of any note in the State.

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. NOYKS, 149 Power's Block, Rochester, N. Y.

HUMPHREYS' HOMEOPATHIC VETERINARY SPECIFICS

For Horses, Cattle, Sheep, Dogs, Hogs, Poultry.
500 PAGE BOOK on Treatment of Animals and Chart Sent Free.

CURES—Fever, Congestions, Inflammation, A. A.—Spinal Meningitis, Milk Fever. B. B.—Strains, Lameness, Rheumatism. C. C.—Distemper, Nasal Discharges. D. D.—Bots or Grubs, Worms. E. E.—Coughs, Heaves, Pneumonia. F. F.—Colic or Gripes, Bellyache. G. G.—Miscarriage, Hemorrhages. H. H.—Urinary and Kidney Diseases. I. I.—Eruptive Diseases, Mange. J. K.—Diseases of Digestion.

Stable Case, with Specifics, Manual, Witch Hazel Oil and Medicator, \$7.00
Price, Single Bottle (over 50 doses), .60

Sold by Druggists; or Sent Prepaid on Receipt of Price. Humphreys' Med. Co., 109 Fulton St., N. Y.

HUMPHREYS' HOMEOPATHIC SPECIFIC No. 28

In use 30 years The only successful remedy for Nervous Debility, Vital Weakness, and Prostration, from over-work or other causes. \$1 per vial, or 5 vials and large vial powder, for \$5. SOLD BY DRUGGISTS, or sent postpaid on receipt of price.—Humphreys' Medicine Co., 109 Fulton St., N. Y.

C. W. JONES, Richland, Mich.
Breeding stock all recorded in both the American and Ohio Poland-China Records.

The Veterinarian.

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

ATROPHY OF THE SHOULDER MUSCLES.—While your veterinarian is giving statements for different diseases, please state cure for sweeney in shoulder of horses or mules, generally produced by working with too large a collar. [Perfect rest from the time the muscles are noticed to be atrophied, and the daily application of a liniment composed of equal parts of liquor ammonia, spirits of turpentine, and linseed oil. This liniment must be applied with the greatest caution, not rubbing too hard, but keeping up a continued irritation for a length of time.]

HIDE-BOUND.—Hide-bound, so-called in horses, is not properly a disease itself, but rather the symptom of any one of many diseases. It is also one of the results of poor diet and keep, all sorts of derangements of the digestive organs, and various disorders of obscure seat or ill-defined character. The grand remedy for it, of course, is to attack and overthrow the disease which causes it. But when that disease cannot be discovered, or even sometimes as an accompaniment to the main treatment, when the disease is quite apparent, a few mashes, a little physic, an alterative, and regular repeated frictions of the body with a stiff brush, are often successful in removing hide-bound.

QUARTER CRACK.—A mare has quarter crack on right fore foot. Have tried various hoof ointments, but while the crack seems to have closed at the top, the hoof does not seem to grow down as it should. It has been in this condition some months, but does not interfere with her driving. [Soak the feet in cold water two hours a day for a week, then apply Moore Bros.' golden blister. In six days begin the soaking again and continue it for a week, after which three times a week will suffice. The horse should wear bar shoes and the blister be repeated in a month, by these means the feet will grow out rapidly, and the new horn will not crack so easily, as it will be of much better quality.]

PROBABLY RHEUMATISM.—Would like to inquire of your veterinarian about my mare. She is seven years old and has had two colts, but is not with foal this year. Have not worked her very much this winter, and she commenced to be stiff the first part of January and got worse all the time. She is well and healthy, but her breast is sunken in some. [From your description it would be impossible to make out the nature of the stiffness. It may be due to founder or perhaps to rheumatism. If you find that the feet are feverish, if shoes are on have them removed, and apply warm poultices of linseed meal. Put the mare on bran mashes, with hay and plenty of water to drink. Leave salt within her reach. Do not feed corn or grain of any kind. Keep indoors, blanketed, in a warm, roomy shed.]

COUGH IN MARE.—My mare, four years old last spring, has been troubled with a cough for the last three or four months. It seems hard and dry, very little running at nose; mare has good appetite and spirits and is improving in flesh. She coughs several times when first starting off to drive, and then, perhaps, no more until she is back in the stable. [Steep half a pound whole flaxseed in gallon of boiling water in a pail over night, and each day use it up among the three meals. Give a table-spoonful of the following powders three times a day: Powdered muriate of ammonia, 4 ounces; powdered nitrate of potass., 4 ounces; powdered barbaodes aloes, 4 ounces; powdered licorice root, 8 ounces. Mix. The powder must be put well back into the mouth to avoid waste.]

Devon Cattle!

We are the largest breeders of this hardy, easy-keeping breed, one of the best for the West. Stock for sale singly or car lots.
RUMSEY BROS. & CO.,
EMPORIA, KANSAS.

TIMBER LINE HERD Holstein - Friesian Cattle.

We have for sale any or all of our entire herd of Holstein-Friesian Cattle, consisting of Cows, Heifers and Calves—full-bloods, and Grades up to fifteen-sixteenths. Ask for just what you want. Send for prices of family cows—grades. All our Holsteins will be at Winfield, Kas., after April 1, 1887.
W. J. ESTES & SONS.

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—OF—
NEWTON, - - KANSAS,
Breeder of A. J. C. C. H. R.

Jersey Cattle.

The herd is headed by the Stoke Pogis Victor Hugo Duke bull, St. Valentine's Day 18278, and the Coomassie bull, Happy Gold Coast 14713. Sons and daughters by above bulls out of highly-bred cows, for sale for next ten days.
Address S. B. ROHRER.

BRIGHTWOOD HERD OF SHORT-HORNS

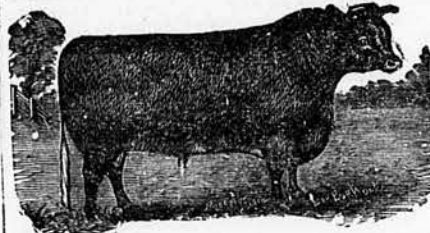


Bates and Standard Families, including
PURE KIRKLEVINGTONS,
Places, Harts, Craggs, Roses of Sharon, Young Marys and Josephines.

Have extra well-bred young bulls, ready to head herds, for sale now at terms to suit. Also two handsome, rangy, FINELY-BRED TROTTER STALLIONS for sale.

R. E. THOMSON, Slater, Mo.

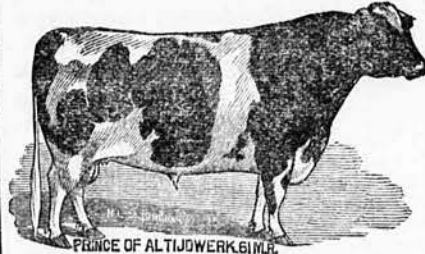
SUNNY SIDE HERD OF SHORT-HORNS.



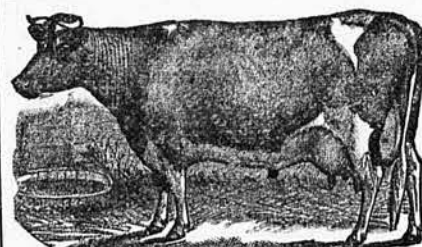
Is composed of such strains as MARYS, KIRKLEVINGTONS, BATES, ROSE OF SHARON, JOSEPHINES, YOUNG PHYLLIS, and other noted families. DUKE OF RATHWOLD—heads the herd. Animals of good individual merit and pedigree for sale on terms to suit purchasers. Address FRANK CRAYCROFT, SEDALIA, MO.

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Of European Herd Book Registry.



The sweepstakes bull PRINCE OF ALTJEDWERK (61 M. B.) at head of herd, has no superior. Cows and heifers in this herd with weekly butter records from 14 pounds to 19 pounds 10 1/2 ounces; milk records, 50 to 80 pounds daily. The sweepstakes herd. Write for catalogue. M. E. MOORE, Cameron, Mo.
[Mention this paper.]



H. V. PUGSLEY,
PLATTSBURG, MO.,

Breeder of Holstein-Friesian Cattle, of the Mercedes, Heintje, Katy K., and other noted families. Herd headed by the prize bull MINK 30's MERODES PRINCE 2361. Have Merline Sheep. Catalogues free.
[Mention this paper.]

SPECIMEN OF CALVES BRED AT THE MOUNT -:- PLEASANT -:- STOCK -:- FARM.



Descendants of Royal English winners and Sweepstake winners at the prominent fairs of the United States. Sweepstakes herd at the great St. Louis Fair in 1885.

This herd is one of the oldest and largest in the country, comprising 300 head of choicest Herefords from all the best strains in England and America. The herd is headed by famous first-prize and sweepstakes bulls: FORTUNE 2080, one of the most celebrated bulls of the breed, by the famous Sir Richard 2d 970a—the smoothest, blockiest family of the breed; Sir Evelyn 2655, one of the best sons of Lord Wilton 4087; Grove 4th 13733, an illustrious son of Grove 3d 2490; Dewsbury 2d, 18977, by the celebrated Dolly 9495.

FOR SALE—Cows, Bulls and Heifers, either singly or in car lots, at the very lowest prices consistent with first-class breeding and individual merit. Special prices given to parties starting herds. Visitors always welcome. Catalogues on application.
J. S. HAWES, Colony, Anderson Co., Kas.



EARLY DAWN HEREFORD HERD, The Champion Herd of the West,

—CONSISTING OF—
250 HEAD OF THOROUGHbred HEREFORD CATTLE.

The sweepstakes bulls BEAU MONDE and BEAU REAL and first-prize Wilton bull SIR JULIAN, out of the famous English show cow Lovely, by Preceptor, are our principal bulls in service.

E. S. SHOCKEY, Secretary, Maple Hill, Kansas.

Twenty miles west of Topeka, on the C., R. I. & P. R. R.

E. Bennett & Son,

TOPEKA - KANSAS

The Leading Western Importers of

CLYDESDALE, PERCHERON, CLEVELAND BAY

—AND—
French Coach Horses.

AN IMPORTATION OF 125 HEAD,
Selected by a member of the firm, just received.

Terms to Suit Purchasers. Send for illustrated catalogue. Stables in town.

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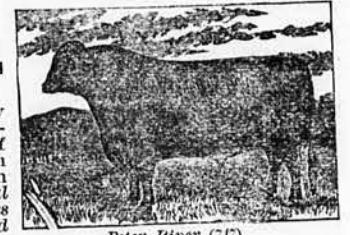


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RED POLLED CATTLE.

We have on hand a very choice collection, including a recent importation of horses, several of which have won many prizes in England, which is a special guarantee of their soundness and superiority of form and action. Our stock is selected with great care by G. M. SEXTON, Auctioneer to the Shire Horse Society of England.

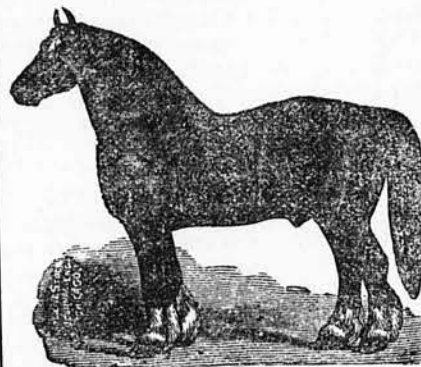
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Peter Piper (17).

JOHN CARSON,

Pleasant View Farm,
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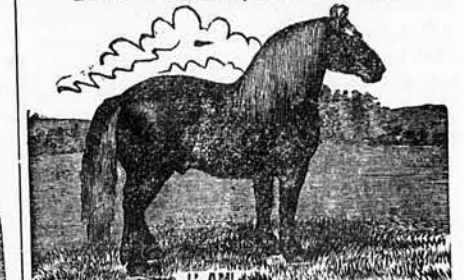


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Have now on hand for sale horses of each breed, thoroughly acclimated. Stock guaranteed. Inspection and correspondence invited.

RIVERSIDE STOCK FARM, DEGEN BROS., Ottawa, Ill.



Importers and Breeders of French Draft and French Coach Horses. We have now over 75 head of imported French Draft Stallions and Mares on hand. Our importations this year have been selected from the best breeding district in France. Our stock is all recorded in France and in the National Register of French Draft Horses in America. Our French Coach Horses are the best that could be found in France. We will be pleased to show our Stock to visitors. Correspondence invited and promptly answered.
DEGEN BROS.

Chester White, Berkshire and Poland-China Pigs, fine Setter Dogs, Scotch Collies, Fox Hounds and Beagles, Sheep and Poultry, bred and for sale by W. Gibbons & Co., West Chester, Chester Co., Pa.
Send stamp for Circular and Price List.

According to recently published statistics, there are at present 1,971,865 bee-hives in France.

An Eastern farmer reminds farmers that it is not the aggregate amount of crops, but the profit made in growing them, that determines their net gains.

It does not pay to maintain interest and taxes on a couple of hundred acres when the paying crops are grown on one-quarter of that area.

Short-hand, type-writing, German, book-keeping, penmanship, arithmetic, commercial law, banking, etc., are thoroughly taught in the Arkansas Valley Business College, Hutchinson, Kas.

J. L. Budd, in noting that several horticultural writers have observed the greater abundance of fruit on trees exposed to roadside dust, says the belief is prevalent in Europe, especially in Russia, that the crop is greatly increased by dusting the trees with ashes, lime or road dust.

Do Not Think for a Moment that catarrh will in time wear out. The theory is false. Men try to believe it because it would be pleasant if true, but it is not, as all know. Do not let an acute attack of cold in the head remain unsubdued. It is liable to develop into catarrh. You can rid yourself of the cold and avoid all chance of catarrh by using Dr. Sage's Catarrh Remedy. If already afflicted rid yourself of this troublesome disease speedily by the same means. At all druggists.

Farm and Garden says: It is true that grafting the various kinds of nut trees in the open air, is not quite as certain to be successful as with ordinary fruit trees, but if it can be done at all, it is worth trying wherever there is an opportunity of doing so; we have had moderate success in grafting large chestnut trees, the scions being inserted in different ways, such as the splice, cleft and triangular graft, with very little difference in the result, although we give preference to the splice or whip-graft on branches of small size.

Advice to Consumptives.

On the appearance of the first symptoms—as general debility, loss of appetite, pallor, chilly sensations, followed by night-sweats and cough—prompt measures for relief should be taken. Consumption is scrofulous disease of the lungs;—therefore use the great anti-scrofula, or blood-purifier and strength-restorer,—Dr. Pierce's "Golden Medical discovery." Superior to cod liver oil as a nutritive, and unsurpassed as a pectoral. For weak lungs, spitting of blood, and kindred affections, it has no equal. Sold by druggists the world over. For Dr. Pierce's treatise on consumption, send 10 cents in stamps to World's Dispensary Medical Association, 663 Main St., Buffalo, N. Y.

Are You Going South?

If so, it is of great importance to you to be fully informed as to the cheapest, most direct and most pleasant route. You will wish to purchase your ticket via the route that will subject you to no delays, and by which through trains are run. Before you start, you should provide yourself with a map and time table of the Gulf Route (Kansas City, Ft. Scott & Gulf R. R.), the only direct route from and via Kansas City to all points in Eastern and Southern Kansas, Southwest Missouri, and Texas. Practically the only route from the West to all Southern cities. Entire trains with Pullman Palace Sleeping Cars, and Free Reclining Chair Cars, Kansas City to Memphis; through Sleeping Car, Kansas City to New Orleans. No change of cars of any class, Kansas City to Chattanooga, Knoxville and Bristol, Tenn. This is the direct route, and many miles the shortest line to Little Rock, Hot Springs, Eureka Springs, Fort Smith, Van Buren, Fayetteville, and all points in Arkansas. Send for a large map. Send for a copy of our "Missouri and Kansas Farmer," an 8-page illustrated paper, containing full and reliable information in relation to the great States of Missouri and Kansas. Issued monthly and mailed free. Address, J. E. LOCKWOOD, G. P. & T. A., Kansas City.

Homes in the Sunny South.

The Marion Standard has gotten up a special edition descriptive of the resources, products, location, climate, health, &c., of Perry county, Alabama. Copies sent free on application. Address, Marion Standard Marion, Perry county, Alabama.

Farmers and dairymen will do well to call and see our new Creamery Cans, for sale at J. J. Floreth & Co.'s, 719 Kansas avenue, Topeka.

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T. A. HUBBARD, PROP'R, WELLINGTON, KANSAS. — Sweepstakes on herd, breeders' ring, boar and sow, wherever shown in 1886, except on boar at Winfield, winning (75) premiums at four fairs, including Grand Silver Medal for Best Herd, at Topeka. Stock recorded in Ohio Poland-China and American Berkshire Records. In addition to my own breeding, the animals of this herd are now and have been prize-winners, selected from the notable and reliable herds of the United States, without regard to price. The best and largest herd in the State. I will furnish first-class hogs or pigs with individual merit and a gilt-edged pedigree. Single rates by express. Personal inspection solicited. Correspondence invited.

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Pure-bred Poland-Chinas

C. G. SPARKS, Mt. Leonard, -- Mo. BLACK U. S. at head of herd. About sixty choice pigs, both sexes, for sale. Stock recorded in A. P.-C. and O. P.-C. Records. Special express rates.

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185 FOR SALE. Sired by six first-class boars, for season's trade. My herd is headed by STEM WINDER 7971. Address F. M. LAIL, Marshall, Mo. [Mention KANSAS FARMER.]

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400 POLAND-CHINA & DUROC-JERSEY SWINE of the most popular strains, at prices to suit the times. Send for catalogue and price list. I. L. WHIPPLE, Ottawa, Kansas.

THE GOLDEN BELT HERD OF THOROUGH BRED POLAND-CHINAS.

Every breeder is strictly first-class and registered in the American P.-C. Record. A comparison with any other herd in the United States is solicited. I will sell first-class boars, ready for service in November and December, for \$20 each, on orders received on or before October 10, 1887, and deliver them by express free, within 100 miles of Lyons. Sixty choice April and May sows for sale. Cash to accompany order. Satisfaction guaranteed. Pedigree with every sale. F. W. TRUSDELL, LYONS, RICE CO., KAS.

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Established 1845. THOROUGH BRED POLAND CHINAS as produced by A. C. Moore & Sons, Canada, Ill.

We breed from 160 sows and 12 males. All recorded in A. P. C. Record. Pigs all eligible to record. Pedigree sent when desired. Swine Journal 25 Cents in 1 & 2-ct. stamps. Photo of Card of Breeders sent free. COME AND SEE OUR STOCK We have special rates by express. If not as represented we will pay your expenses.

Gold Dust Herd of Poland-Chinas.



J. M. MOKKEE, WELLINGTON, KANSAS. My herd is composed of such strains as Black Bess, Give or Take, Tom Corwin, Gold Dust and U. S. I sell nothing but first-class hogs of individual merit and gilt-edged pedigree. Choice pigs a specialty. Plymouth Rock Chickens of superior quality. Correspondence invited. Mention KANSAS FARMER.

CHOICE

Berkshire and Small Yorkshire

PIGS and MAMMOTH BRONZE TURKEYS. We have a splendid lot of the above named hogs and turkeys for sale at hard time prices. Write for prices before making purchases if you need anything in this line. Satisfaction guaranteed. WM. BOOTH & SON, Winchester, Kas.

SELECT HERD OF LARGE BERKSHIRES!

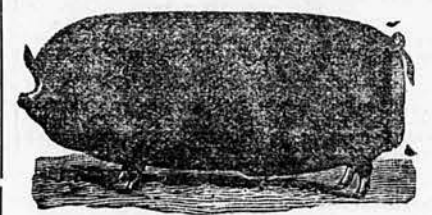
G. W. BERRY, PROP'R, TOPEKA, KAS. My breeders have been selected, regardless of expense, from the leading herds of the United States; are bred from the best stock ever imported, and represent seven different families. Healthy pigs from prize-winning stock for sale. Write for circular and prices or come and see. [Mention this paper.]

For Berkshire Swine, South-down Sheep, and Bronze Turkeys, that are first-class, or money refunded, call on or address J. M. & F. A. SCOTT, Box 11, Huntsville, Mo. [Mention KANSAS FARMER.]

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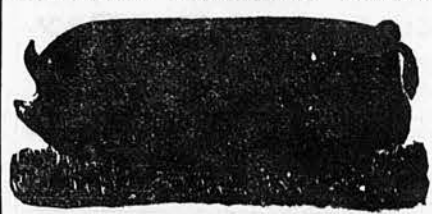
Headed by GOLDEN CROWN 14823, A. B. R. CHOICE PIGS FOR SALE, either sex. Everything as represented. Write me, and please mention this paper. Address JAMES HOUK, HARTWELL, HENRY CO., MO.

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THE WELLINGTON HERD consists of twenty matured brood sows of the best families of home-bred and imported stock, headed by the celebrated HOPEFUL JOE 4889, and has no superior in size and quality nor in strain of Berkshire blood. Also Plymouth Rock Chickens. Your patronage solicited. Write. [Mention this paper.] M. B. KEAGY, Wellington, Kas.

PLEASANT VALLEY HERD Pure-bred Berkshire Swine.



I have thirty breeding sows, all matured animals and of the very best strains of blood. I am using three splendid imported boars, headed by the splendid prize-winner Plantagenet 2919, winner of five first prizes and gold medal at the leading shows in Canada in 1881. I am now prepared to fill orders for pigs of either sex not akin, or for matured animals. Prices reasonable. Satisfaction guaranteed. Send for catalogue and price list, free. S. McCULLOUGH, Ottawa, Kansas.

The Line selected by the U. S. Govt to carry the Fast Mail.



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J. F. BARNARD, GEN'L MGR., K. C., ST. J. & C. B. AND H. & ST. J., ST. JOSEPH. A. C. DAWES, GEN'L PASS. AGT., K. C., ST. J. & C. B. AND H. & ST. J., ST. JOSEPH.

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ROCK ISLAND ROUTE

TIME CARD: ATLANTIC EXPRESS. Arrives from Chicago.....12:25 p. m. Leaves for Chicago..... 2:45 p. m. Depot, Union Pacific R. R., North Topeka.

ALMA ACCOMMODATION. Arrives at Topeka.....11:50 a. m. Arrives at North Topeka.....12:00 noon. Leaves North Topeka..... 1:00 p. m. Leaves Topeka..... 1:10 p. m. From crossing R. R. street and C., K. & N. track, North Topeka. ALL TRAINS RUN DAILY.

MISSOURI PACIFIC RAILWAY.

ONLY LINE RUNNING 3 DAILY TRAINS 3 BETWEEN

ST. LOUIS & KANSAS CITY. Double Daily Line of Free Reclining Chair Cars to OMAHA.

Elegant Parlor Cars to KANSAS CITY, and Reclining Chair Cars Free on all trains.

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ST. LOUIS TO WICHITA AND ANTHONY, KAS.

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Only one change of cars St. Louis to San Francisco.

Through Pullman Buffet Sleeping Cars to Memphis, Mobile, Malvern, Houston, Galveston, and all principal Southern points.

Information cheerfully furnished by Company's agents. H. C. TOWNSEND, W. H. NEWMAN, Gen'l Pass. & Tkt. Agt. Gen'l Traffic Man., St. Louis, Mo.

THIS PAPER is on file in Philadelphia at the Newspaper Advertising Agency of Messrs. N. W. AYER & SON, our authorized agents.

THE STRAY LIST.

HOW TO POST A STRAY. THE FEES, FINES AND PENALTIES FOR NOT POSTING.

BY AN ACT of the Legislature, approved February 27, 1886, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker-up, to the KANSAS FARMER, together with the sum of fifty cents for each animal contained in said notice.

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

No persons, except citizens and householders, can take up a stray. If an animal liable to be taken 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 township giving a correct description of such stray.

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

Jefferson county—E. L. Worswick, clerk. COLT—Taken up by J. D. Mathews, six miles northeast of Valley Falls, on or about September 27, 1887, one bay horse colt, star in forehead and barb-wire silt in right ear; valued at \$30.

Washington county—John E. Pickard, clk. HEIFER—Taken up by R. A. Olant, in Haddam tp., October 7, 1887, one spotted heifer; valued at \$15.

Too Late to be Classified. WANTED—Catalpa and Russian Mulberry Seeds; also Yearling Timber, Apple, Cherry and other trees. W. J. Murphy, Wittpry, Hodgeman Co., Kas.

AN ORCHARD FOR TWO DOLLARS.—I send by mail postpaid for \$2.00 a grafting package containing enough roots and selected scions to make over 100 trees, a grafting-knife, spool waxed thread, sample grafts, plain directions for work. With this you can grow your own orchard, learning to graft besides.

FOR WEEK ENDING OCT. 6, 1887. Davis county—P. V. Trovinger, clerk. MARE—Taken up by G. German, Liberty tp., September 2, 1887, one sorrel mare 5 years old, 15 hands high, one white hind foot and white spot in face; valued at \$80.

Shawnee county—D. N. Burdge, clerk. PONY—Taken up by W. W. Hammond, of Mission tp., (P. O. Topeka), September 26, 1887, a light gray pony mare, 3 years old, brand on left thigh; valued at \$30.

Reno county—W. R. Marshall, clerk. PONY—Taken up by Dr. Wiley Brown, in Bell tp., September 1, 1887, one bay mare pony, 4 years old, two white feet, branded C K; valued at \$30.

Ford county—S. Gallagher, Jr., clerk. STEER—Taken up by Henry Whitenberg, (tp. 29, range 27 w.), June 16, 1887, one red steer, 4 years old, branded H on left side and G. R. on right hip; (P. O. address Ego, Gray county); valued at \$25.

Sedgwick county—E. P. Ford, clerk. MARE—Taken up by J. M. Sloan, in Minneha tp., August 21, 1887, one flea-bitten gray mare, 12 years old, 14 1/2 hands high, collar marks on both shoulders, slightly "stove" in shoulders; valued at \$55.

FOR WEEK ENDING OCT. 13, 1887. Sumner county—Wm. H. Berry, clerk. HORSE—Taken up by J. A. Sims, in Walton tp., September 9, 1887, one flea-bitten gray horse, silt in each ear, branded K on left hump and on right shoulder and letter I on right hump; valued at \$40.

Anderson county—A. D. McFadden, clerk. COW—Taken up by Resben Lowry, in Walker tp., (P. O. Greeley), one red cow, 6 years old, white spot in face, crop off right ear, lower half of tail white; valued at \$22.

Garfield county—C. Van Patten, clerk. MULE—Taken up by James E. Dawson, in Center tp., (P. O. Kawanna), one sorrel mare mule, 7 years old, 5 feet and 1/2 inch high, blind in left eye, harness mark on back; valued at \$50.

Bourbon county—E. J. Chapin, clerk. STEER—Taken up by Wm. Watson, in Osage tp., October 7, 1887, one 3-year-old steer, white with red ears, red spots on neck, short, thick neck and large horns, no marks or brands visible; valued at \$30.

FOR WEEK ENDING OCT. 20, 1887.

Rush county—L. K. Hain, clerk. PONY—Taken up by L. D. Wood, in Brookdale tp., (P. O. Rush Center), September 30, 1887, one cream-colored mare pony, 3 years old past, brand on lower part of right shoulder, black mane and tail; valued at \$20.

Morris county—G. E. Irvin, clerk. MARE—Taken up by J. F. Marshall, in Clark's Creek tp., October 13, 1887, one brown mare, 14 hands high, about 10 years old, branded V on left shoulder and 8 with a mark above on left hip; valued at \$25.

Pottawatomie county—I. W. Zimmerman, clk. FILLY—Taken up by Thomas Smith, in St. Marys tp., September 17, 1887, one 2-year-old filly, no marks or brands; valued at \$30.

Cowley county—S. J. Smock, clerk. COLT—Taken up by A. C. Davis, in Tisdale tp., (P. O. Tisdale), September 28, 1887, one gray horse colt, two white feet and white face; valued at \$75.

Neosho county—T. B. Limbocker, clerk. MARE—Taken up by W. T. Mitchell, in Walnut Grove tp., one sorrel mare, 14 or 15 hands high, blind in left eye, some white on hind feet, saddle and harness marks, 12 or 15 years old; valued at \$25.

Sedgwick county—E. P. Ford, clerk. HORSE—Taken up by R. T. Leach, of Minneha tp., one light bay gelding, 8 or 9 years old, blind in right eye, no marks or brands; valued at \$25.

Meade county—W. H. Young, clerk. MARE—Taken up by John Fancher, in Logan tp., October 30, 1887, one bay mare, about 4 feet 9 inches high, saddle mark on back, dark mane and tail, white on forehead, distula in both shoulders; valued at \$30.

Brown county—G. I. Prewitt, clerk. STEER—Taken up by Jerome J. Heckstetter, in Walnut tp., October 6, 1887, one 1-year-old red steer, no marks or brands; valued at \$15.

Clark county—J. S. Myers, clerk. PONY—Taken up by E. W. Walker, in Center tp., (P. O. Ashland), September 12, 1887, one light bay mare pony, 14 1/2 hands high, Spanish brand on left thigh.

Jefferson county—E. L. Worswick, clerk. COLT—Taken up by J. D. Mathews, six miles northeast of Valley Falls, on or about September 27, 1887, one bay horse colt, star in forehead and barb-wire silt in right ear; valued at \$30.

Washington county—John E. Pickard, clk. HEIFER—Taken up by R. A. Olant, in Haddam tp., October 7, 1887, one spotted heifer; valued at \$15.

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FOR WEEK ENDING OCT. 6, 1887. Davis county—P. V. Trovinger, clerk. MARE—Taken up by G. German, Liberty tp., September 2, 1887, one sorrel mare 5 years old, 15 hands high, one white hind foot and white spot in face; valued at \$80.

Shawnee county—D. N. Burdge, clerk. PONY—Taken up by W. W. Hammond, of Mission tp., (P. O. Topeka), September 26, 1887, a light gray pony mare, 3 years old, brand on left thigh; valued at \$30.

Reno county—W. R. Marshall, clerk. PONY—Taken up by Dr. Wiley Brown, in Bell tp., September 1, 1887, one bay mare pony, 4 years old, two white feet, branded C K; valued at \$30.

Ford county—S. Gallagher, Jr., clerk. STEER—Taken up by Henry Whitenberg, (tp. 29, range 27 w.), June 16, 1887, one red steer, 4 years old, branded H on left side and G. R. on right hip; (P. O. address Ego, Gray county); valued at \$25.

Sedgwick county—E. P. Ford, clerk. MARE—Taken up by J. M. Sloan, in Minneha tp., August 21, 1887, one flea-bitten gray mare, 12 years old, 14 1/2 hands high, collar marks on both shoulders, slightly "stove" in shoulders; valued at \$55.

FOR WEEK ENDING OCT. 13, 1887. Sumner county—Wm. H. Berry, clerk. HORSE—Taken up by J. A. Sims, in Walton tp., September 9, 1887, one flea-bitten gray horse, silt in each ear, branded K on left hump and on right shoulder and letter I on right hump; valued at \$40.

Anderson county—A. D. McFadden, clerk. COW—Taken up by Resben Lowry, in Walker tp., (P. O. Greeley), one red cow, 6 years old, white spot in face, crop off right ear, lower half of tail white; valued at \$22.

Garfield county—C. Van Patten, clerk. MULE—Taken up by James E. Dawson, in Center tp., (P. O. Kawanna), one sorrel mare mule, 7 years old, 5 feet and 1/2 inch high, blind in left eye, harness mark on back; valued at \$50.

Bourbon county—E. J. Chapin, clerk. STEER—Taken up by Wm. Watson, in Osage tp., October 7, 1887, one 3-year-old steer, white with red ears, red spots on neck, short, thick neck and large horns, no marks or brands visible; valued at \$30.

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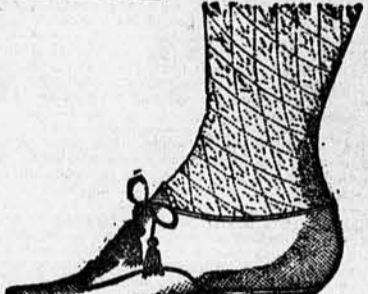
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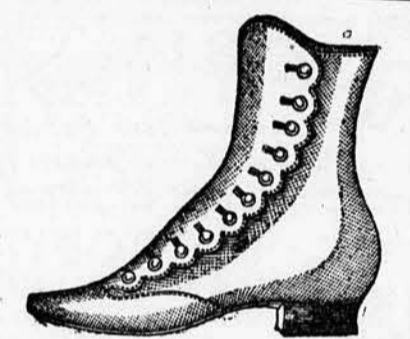
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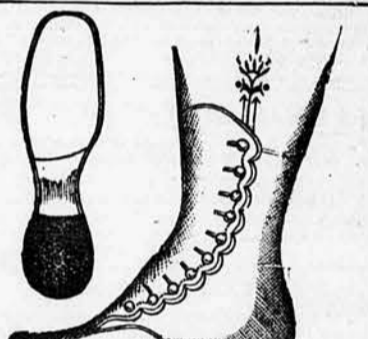
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G. & J. GEARY, Brookfield, Mo.

SPECIAL PUBLIC SALE.

FIFTY HEAD OF PURE-BRED, REGISTERED

Devon, Holstein, Jersey, Galloway and Short-horn Cattle

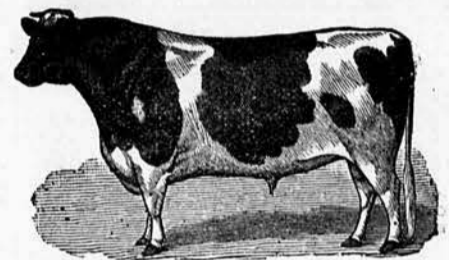
Will be offered without reserve at Riverview Park,

KANSAS CITY, MO.

By WALTER C. WEEDON & Co.,

On Monday, October 31, 1887,

During the Kansas City Fat Stock Show.



This offering will afford stock-raisers a grand opportunity to secure some remarkably good breeding stock. THE HOLSTEINS—Represent a draft from the choice herd of D. P. & H. P. Ellis, Esquires, Cleveland, Ohio, who have selected their herd and bred with great care, and the animals to be sold are a nice, even, vigorous lot, and worthy the attention of dairymen of the West. THE DEVONS—Are the choicest lot ever offered here and comprise the select herd of R. K. Payne, Esq., Parkman, Ohio, who, on account of death in his family, has instructed us to disperse his entire herd. This will afford a rare opportunity for lovers of the beautiful hardy Devons to secure some gems, as nearly every animal has a prize-winning record. All are choicely bred, healthy and vigorous, and the cows are a remarkable lot of breeders. THE JERSEYS, GALLOWAYS AND SHORT-HORNS—Are choice and will be sold to close out consignments. Sale to commence at 1 o'clock p. m. Terms made known at time of sale. Liberal time on good bankable paper. For catalogues and further information, apply to WALTER C. WEEDON & CO., 1431 BELL ST., KANSAS CITY, MO. Col. L. P. MUIR, Auctioneer.]

GREAT PUBLIC SALE!

The following will be offered at Public Sale, on the Creamery Farm, (Section 19, Town 25, Range 1 West), four miles west and two miles north of VALLEY CENTER, Sedgwick Co. Kansas,

MONDAY, OCTOBER 24, 1887,

(At 10 o'clock a. m., sharp),

Four Registered and four High-Grade Holstein Bulls; five Registered and Eligible Holstein Cows and Heifer Calves; 126 High-Grade Holstein Cows, Heifers and Calves; 120 Native Milch Cows and Heifers; thirty-three Yearling Steers; twenty-eight Spring Calves; four Mules; one Stallion (half-blood Norman); one Poland-China Boar; Farm Implements, Machinery, Household Furniture; ABOUT 300 TONS OF HAY; 240 acres of Corn, and other personal property.

TERMS OF SALE:—All sums up to \$10, cash; on sums over \$10, a credit of twelve months will be given on notes, without interest, with approved security.

Free lunch at 1 o'clock p. m. every day during sale.

J. SIMON, Agent, Newton, Kas.

W. G. BLACK, Auctioneer.

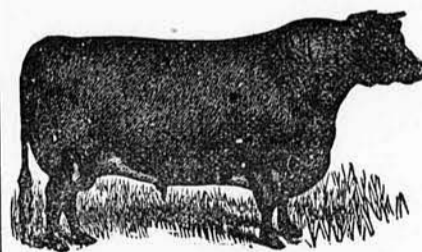
CLOSING-OUT SALE!

—OF THE—
WALNUT GROVE HERD

—OF—
HIGH-BRED

SHORT-HORN CATTLE

With the exception of a few old cows and young calves. The sale to take place at



Riverview Park, Kansas City, Mo.,

WEDNESDAY and THURSDAY, NOV. 2 and 3,

(DURING THE FAT STOCK SHOW).

The offerings will consist of the following Bates families: Airdrie Duchess, Wild Eyes, Barringtons, Kirklevingtons, Fletchers or Bell Bates, Craggs, Darlingtons, Constances, Minnies, Rose of Sharons, Loudon Duchesses, Vellums and Young Marys. Also the splendid Pure Duke Bull, Oxford Duke of Airdrie 71047.

Our land, owing to its close proximity to Kansas City, has become too valuable to farm, and in consequence we are compelled to disperse our splendid herd of Short-horns, which has been formed with great care and much expense.

TERMS—Made known on day of sale. Catalogues ready October 20, and sent on application to

SETH E. WARD & SON, Westport, Mo.

On Wednesday, November 2, J. S. MAJORS, of Kearney, Mo., will sell his entire herd of Short-horns, and W. A. HENDERSON, of the same place, a few of his excellent cattle. H. C. CHILES, of Mayview, Mo., will also offer a small draft from his well-known herd.