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POTATO CULTURE.

Read before the Ellsworth County Institute, May, 1886, by James McMaster.

Although it is only about one hundred years since the first cultivation of the potato, yet it stands third among our food products, and its total valuation annually amounts to millions of dollars to the farmers of the United States.

In these days when prices for farm products rule low, the thoughtful farmer is eagerly looking for new branches of farming in which to engage whereby larger returns may be accrued from labor expended. To such I think potato culture holds out good inducements.

In order to more fully get at the relative profits of potato culture, as compared with the culture of other crops, we will take for example our principal crop—wheat, and compare the profits derived from it with those of potatoes. For basis of comparison we will take the crop statistics for Ellsworth county for the year ending 1885. In the fall of 1884 there was sown to wheat 51,344 acres, and of these 30,806 acres were harvested; and in addition to this there was harvested 1,366 acres of spring wheat, making the total harvest for Ellsworth county amount to 32,172 acres, yielding in all 226,370 bushels of wheat, valued at \$135,822. The average yield was seven bushels per acre, with an average price of 60 cents per bushel, leaving an average gross profit of \$4.20 per acre, barring the expense of preparing and seeding 20,538 acres which was not harvested, being either winter-killed or destroyed by other causes.

The number of acres devoted to the growing of potatoes for the same year was 849, which yielded 76,410 bushels, valued at \$40,564, making an average showing of 90 bushels per acre, valued at 40 cents per bushel, making an average gross profit of \$36 per acre. Thus we see the average profits of potatoes exceed those of wheat \$31.80 per acre; and 90 bushels per acre is placing the yield of potatoes at a very low figure. With good ordinary culture we can reasonably expect a yield of 150 to 200 bushels per acre, but placing the yield at 150 bushels, and taking the same prices, we then have a gross profit of \$60 per acre, which far surpasses the profits of anything else we raise on the farm.

And yet, in the face of these facts and figures, we are annually compelled to go abroad for potatoes to supply the home trade. Furthermore, I find in the United States agricultural report for 1884, the average farm price of potatoes for the United States is placed at 40 cents per bushel. I give the average price per bushel of a few of the principal States, as quoted from the above mentioned report: The lowest is 25 cents in Michigan; the average in New York is 39 cents, 42 in Ohio, 28 in Iowa, 29 in Nebraska and 48 in Kansas. Thus we see Kansas as a State ranks in prices for potatoes above all others.

HOW TO GROW.

After selecting a suitable piece of land, (which should be either a light sandy loam or a black loamy soil), the first thing to consider is the preparation of the soil. This should begin early in the fall. Use a three-horse team in plowing; then plow thorough and deep, I would say not less than ten to twelve inches. Let soil lay to the action of frost and weather, and in spring it will be in a fine, clean, mellow condition. The application of twenty or thirty loads of well-

rotted manure drawn and scattered on the land during the late fall or winter will make a marked impression on the yield. As soon as the frost leaves the soil and the weather has somewhat settled, the ground should again be plowed and made mellow by using harrow and roller.

In planting I use a corn-marker, marking out rows thirty-six inches apart, then follow on row with plow running a furrow four inches deep, dropping seed on bottom of furrow fifteen to eighteen inches apart. Seed should be dropped cut side up; this places the bud in direct contact with the soil, causing it to strike an earlier and stronger root, hence sending up a more vigorous shoot. In covering, use plow to turn furrow back. This leaves a deep, mellow, open bed above and below the seed, through which the stem can shoot up to the light and air, and into which the roots can penetrate and find nutriment. The roots extend downward to an incredible depth, when possible, as has been demonstrated by an experiment by Dr. Sturtevant. He selected a plant which grew on a ridge, the seed having been planted six inches deep. A trench was dug at the side to expose the soil, and the roots were washed with a stream of water, laying the fibers bare. One root was found reaching thirty-four inches below the top of the ridge, or twenty-eight inches below the tubers. The soil would not permit the tracing of the finest roots. Here is an emphatic word spoken for deep culture; such penetration into deep subsoil ought to carry a plant through the severest drouth.

SEED.

There has been a great deal of discussion and experiment on the mode of preparing the seed, some advocating the whole potato, and others defending the one-eye system. But the bulk of the evidence seems to favor the large seed or whole potatoes. The only strong point urged against the use of the whole potato for seed is the large amount required to seed an acre, which is considerable when seed is bought at a high price. In the use of whole potatoes, it takes about thirty bushels per acre, whereas in the use of cut seed eight to 10 bushels is sufficient. Prof. Izenby, of the Ohio Experimental Station, found that whole potatoes when used for seed ripened nine days earlier than cut potatoes. Prof. Sanborn's experiments show that the best results were obtained from large potatoes planted whole, next best from small potatoes planted whole, next from cut potatoes, in proportion to the number of eyes in the set. The record—the summary of nine years' experiments, shows the following yields: From large potatoes, planted whole, 227 bushels per acre; from small potatoes, planted whole, 177 bushels; from three-eye pieces, 160 bushels; from two-eye pieces, 104 bushels; from one-eye pieces, 81 bushels.

This season, in cutting potatoes, I cut very large potatoes in three or four pieces, and planted all potatoes the size of a large hen egg and smaller whole.

CULTIVATION.

The cultivation of the potato should begin with the appearance of the tops above ground, by first giving them a good harrowing. This will kill the weeds, just starting into life. I will here say, the best time to kill weeds is before they can be seen above ground. As soon as rows can be traced, use a two-horse cultivator with fender; then cultivate shallow and frequent, and so con-

tinue until the blossoms show, but not later. "Vaughan's Potato Manual" summarizes the after-cultivation as follows: "Give thorough after-culture. Harrow before the tops appear, and after they do. Stirring the soil destroys the weeds, gives light and heat, causes it to dry out readily in a wet season, and acts as a mulch, which by capillary attraction supplies the plant with moisture in time of drouth. At time of harvest, select the best tubers from the best hills for seed. As the crop is gathered, put it under shade at once, lest the tubers become green, which would render them bitter and unwholesome. At the same time place them where the air can circulate and dry them before storing. Store in pits or dry cellar, free from frost, capable of being made perfectly dark, and of being ventilated quickly and thoroughly. Store in bins or barrels raised a foot or a foot and a half from the floor. A light sprinkling of air-slaked lime upon potatoes when stored is said to be a preventive against rot."

Statistics.

Kansas Farmer:

As the Township Trustee came around last week listing the property and asking the many statistical questions in order to show the prosperity of our country, it occurred to my mind that an essential part is still omitted which should in the future be supplied in order to give us reliable information about the prosperity of the country. The following or similar questions should be added to the statistical list: 1. What is the amount of your debt that you owe to parties outside of the State, secured by mortgage on your property? 2. What is the amount owed to parties within the State and secured by mortgage? 3. What is the amount of other debts? By this means it could be ascertained what portion of our homes is owned by those in possession and whether the real wealth increases and how much.

H. F. M.

The Hedge Question.

Kansas Farmer:

So much has been said about the hedge fence that I feel tempted to say something, too. First, I wish to briefly notice some of the objections to high hedges. One says that they shut out the cooling breezes, thereby making the road hot and sultry. Another says they hold the snow in the road and that high hedges are signs of slovenliness, that the owner must be ashamed of what is behind the scene. As to all those objections, I would say, in the first place, if they do make it sultry in summer they also check the storms of winter, which are twice as severe. If the hedge is cut down to three or four feet, a big, drifting snow will fill up to the top the full width of the road; but where the hedge is tall the snow piles up high next the fence, leaving the road open to travel. And then, it is a fact that while the crop next to the hedge may not be quite so good, yet the fields that are surrounded with tall hedges or timber produce better crops than the open ones. And then, a law that would compel a man to cut down his own hedge would be unjust, because it is his own private property. The law has no right to dictate as to what we shall do with our own property. If the hedge belonged to the road, it would be the road overseer's place to have it cut down as work on the road.

SALATHIEL FRASER.

Salina, Kas.

Those Castor Beans Again.

Kansas Farmer:

According to promise, I will now give my way of harvesting the bean: First, the bean yard. With a sharp spade or shovel pare off the grass and weeds, taking just enough dirt to leave the floor quite smooth. For ten acres of good beans you may calculate to need a yard about 100 feet square, or more. It is best to make a close fence around it, three feet high. If no fence is used, do not lay the bean pods nearer than ten feet from the edge of yard, or many of the beans will pop outside. The yard should have a south slope, so as to get the full heat of the sun on the beans, as it is the heat of the sun that makes them thrash out of the pod. The best way to judge when they are ripe is, when you see one or more burrs on a pod cracked partly open then the whole pod may be taken off. The heart or center pod ripens first, then those on the branches. The ripe pods should be cut off at least twice a week. Great care must be taken that the beans on the yard do not get wet or they will turn black, and you will be "docked" a large per cent. when you sell them. If you see a shower coming on, get all hands at work shoving beans, hulls, pods and all, into piles, and cover with boards, or better, put them in large boxes until the yard is dry. In dry weather the pods may be turned over at mid-day to advantage. Take off heavy boots when doing so. I say shove into piles, then you won't mash the beans. The pods should be spread thin and evenly on the floor. If you get crowded for room on the yard, the pods may lie in piles a day or two without injury, until you get room to spread on the yard. Before selling, they must be run through a fanning mill and all the hulls taken out. If you get some black or sprouted beans by wet weather, do not mix them with the bright ones, or the whole will be subject to "dock." Stock should be kept out of the field and yard, as the beans and hulls are poisonous for man or beast. Horses will seldom eat them, but cattle will quite frequently, and are apt to die if they do. The castor bean is a good fertilizer, and will reclaim worn-out land to a wonderful extent.

Now, Mr. FARMER, I have a query to ask. I see by your paper that the time of the annual school meeting was changed by our Legislature from August to June. Will you or some one tell us what benefit the change will bring to the farmers of Kansas? As I believe the change applies only to the rural districts. Are not the farmers busier in June than in August, especially in the wheat-growing parts of the State? Will there not likely be a smaller attendance at the annual meeting than heretofore? Was the change brought about by the farmers, or is it a school-teacher's "dodge?" Some one please answer.

A SOWER.

[Suppose you ask your member of the Legislature. He ought to be able to answer your question quite as well as persons farther away. We know nothing of the reasons for the change.—EDITOR.]

Snails, shut in a box with air, close themselves in their shell, and live in a dormant state for months, or years, and revive in water at 72 degrees.

A material called "featherbone," prepared from the quills of geese and turkeys, is said to be largely taking the place of whalebone for many purposes.

The Stock Interest.

DATES CLAIMED FOR STOCK SALES.

MAY 17.—Wm. P. Higinbotham, Manhattan, Kas., Short-horn cattle.
MAY 18.—G. S. Burleigh, Herefords, Kansas City, Mo.
MAY 19.—Leavenworth County Short-horn Breeders' Association, Leavenworth, Kas.
MAY 25.—W. S. White, Short-horns, Sabetha, Kas.
MAY 28.—White & Holcombe, Short-horns, Minneapolis, Kas.
JUNE 1.—Walter Latimer, Closing-out Short-horn Sale, Garnett, Kas.
JUNE 8.—E. P. Gamble, Short-horns, Kansas City, Mo.
JUNE 30.—A. H. Lackey & Son, Short-horns, Peabody, Kas.

DRAFT HORSES OF GREAT BRITAIN.

Draft horses form an interesting family just now. Kansas farmers are interested in everything that is said and written about them. Below we copy a few extracts from a recent article in the London *Live Stock Journal*, descriptive of the different breeds in Great Britain:

THE SHIRE HORSES OF DERBYSHIRE.

From time immemorial the counties of Derby, Leicester and Stafford have been renowned for their breed of fine cart horses, and judging from the results of competition at the various shows, they do not at present seem likely to lose their pre-eminence. The Derbyshire horse was usually black, very often with white markings; grays also were not uncommon, and some of the heaviest animals, I remember, were of that color. From various sources we learn that the farmers of the counties I have named used to take great pride in their teams of "heavy black cart horses," as a visitor from the north, far back in the last century, mentions in his diary, and this "pride of stock" still exists in a great degree. In looking through the first volume of the Shire horse stud book one can hardly fail to be struck by the great number of celebrated horses of old, which were bred and used in these districts. They have good feet and sloping pasterns, strong loins, and powerful, well-shaped hocks. That eminent breeder and most critical judge of cart horses, the late Lawrence Drew, of Merryton, was well aware of the excellence of the Derbyshire blood, and purchased by far the larger portion of his mares in that county. I remember his saying, many years ago, before the establishment of any stud books, that "the Derbyshire farmers had a mine of wealth in their mares if they only knew it." That his judgment was correct, the result of many a hard-fought battle in the show yard has proved to demonstration, and the farmers of the district have long since learned how to profit by the valuable breed of animals which the skill and enterprise of their forefathers has placed in their hands. It seems to me that the strong soil of South Derbyshire and the limestone hills of the more northern part of the county produce herbage peculiarly well calculated to grow good horses. It may be that in some other parts of England, especially in the Fens, the horses are heavier, but for active "razor-legged" animals, with fine silky hair, firm, sound joints, and good feet and pasterns, commend me to Derbyshire.

CLYDESDALE HORSES.

There appears to be some doubt about the different combinations of blood which have brought the Clydesdale horse of the present day to the state in which we now find it, though probably it originated in a rather small though hardy breed of horses, not unlike the breed still found in some parts of the Highlands, with flat bones—clothed on the inner edge only with a fringe of silky hair—sloping shoulders and pasterns, and with a free, swinging, fast-walking step.

It is on record that this breed, much cherished and highly thought of, was crossed with Flemish stallions, and that the progeny of this cross continued to

be bred in the haughs and pastures all along the valley of the Clyde.

They have for the last 100 years been bought and taken south by dealers from England, who understood the value of their hardy bringing up, and their activity and courage at work, and the demand which was thus created seems at one time to have induced a desire among the breeders to increase the size and weight of their horses, perhaps slightly at the expense of the sloping shoulders and pasterns, and consequently also of their activity.

This danger, however, now seems to have been averted, and though horses of large size are of course appreciated more highly than the smaller ones, yet, the flat bones, long pasterns, good feet, and smart action, are a *sine qua non* of this breed.

For some years past there has been a good demand for Clydesdales in foreign markets, and numbers have been imported into both North and South America, Australia, New Zealand, and nearly all the countries of Europe, and from the general satisfaction which they are giving, it is hoped that this trade may continue.

Undoubtedly the climate and soil of the part of Scotland where they are mostly bred, has much to do with their hardiness, but it is now a recognized fact that no weather ought to be too severe for the young stock, and that Clydesdales are a breed of horses which ought not to get too much rich feeding while young, if they are to grow out into the kind of animal which it has become the fashion to seek after.

SUFFOLK HORSES.

The Suffolk horse has every claim to be classed among the oldest of our English breeds of cart horses. In the report on the farm prize competition in Norfolk and Suffolk, 1886, by Mr. W. J. Moscrop, Loftus, Yorkshire, to the Royal Agricultural Society of England, the following statement appears in reference to Suffolk horses at Newbourn Hall: "I may remark that if purity of blood is indicated by uniformity of color, the Suffolk undoubtedly stands as the only unmixed breed of horses in the British Isles. In no other can the color be predicted with certainty before birth, the inference being that there can have been no crossing or mixing of blood for a period dating back to the mist of ages, and to produce any color but a chestnut from a Suffolk sire and dam is not within the power of moderns, and would probably tax skill equal to that possessed by the patriarchs of old." The breeders of Suffolk horses have been true to the native stock which their forefathers left them, but upon which they have gradually stamped improvements, and while retaining the characteristic points of usefulness which 150 years ago had made them famous as a breed of English horses, have produced the animals now seen in the Suffolk classes at our annual shows.

A writer from Canada, who has imported all kinds of horses, reports that the Suffolk horse is fast gaining ground there, experience having proved that the long hair of other breeds is objectionable, as with the melting snow and the mud in the spring and fall, the legs of these horses get encumbered with the frozen snow and mire, which is almost impossible to remove, and the constitution will not bear the long hours without feeding, whereas the Suffolk will go nine or ten hours, and will then readily devour any food that is placed before him.

Their activity, combined with an iron constitution, their high courage, combined with docility, and their "never say die" at a dead pull, install them high in the favor of those colonists who

require horses to move a little quicker in front of the whippetrees than the ponderous Shire. Their legs hard and clean, like so much wire and whipcord; back and loins fit to carry a house; feet which will compare with any breed of horses anywhere; intelligent head, well put on; color varying from the bright golden to the dark mahogany chestnut, sometimes touched with that beautiful metallic tinge which makes the coat flash like burnished brass, make up a *tout ensemble* which any horseman can but admire.

The height of a Suffolk stallion would be from 16 to 16.3 hands; girth, 7 feet 8 inches to 8 feet 4 inches; weight, 1,900 to 2,240 pounds; size below the knee, 10½ inches.

The Suffolk horse is also well adapted for mating with the thoroughbred mare for the purpose of breeding that most difficult of all animals to get—viz., the weight-carrying hunter; and several of our most famous sires, Heir Apparent, Royalty, Viceroy, Dandy, etc., have been sold to Ireland with that object, and have met with success. The clean hard legs and size of the Suffolk, in conjunction with the blood and staying powers of the thoroughbred, combine to the production of those necessary adjuncts to the hunter—size and speed—and from the impetus that the breeding of hunters is now receiving from the Royal and other societies, I expect to see the Suffolk horse and mare brought still further into play in this matter.

The Suffolk Punch is pre-eminently an agricultural horse, will drag a ton behind him with ease, and perform all the work that is required of him on the farm. Larger horses we do not require, as he is well up to his work, and all over is a hindrance, as so much extra weight has to be moved every step taken. Suffolk men, high and low, love their horses, as the Yorkshireman loves his thoroughbred and the Arab his steed, and grudges neither time, attention, nor labor to bring his equine friends to perfection. I venture to assert, without fear of contradiction, that he is what the talented editor of the Suffolk stud book portrays him—smart between the shafts in harness, quick at the ends of the plow; a fast walker on the harrows after the drill; and a staunch slave at the collar, be it flour, timber or chalk behind him—unsurpassed by any breed of horses in England or Scotland either. For quality, smart, sprightly, quick action; ability to do long continuous days of hard work on comparative meagre fare; for longevity, and for most of the items that make a good horse, he would not come off second best in the keenest competition. Those who know him best appreciate him most; and I believe Suffolk horses have a great future before them.

Inequalities in the Wool Tariff.

Mr. E. A. Green, President of the Wool Merchants' Association of Philadelphia, recently delivered the following address to the Ohio Wool Growers' Association. We copy from the *Ohio State Journal*:

At the present time there is little issue between the two political parties, the tariff being the only great one, and neither party seems to have the courage to come out squarely for or against it, the party in power being satisfied not to force an issue, and the party out of power being afraid to put the wool "protection" boldly on their banners for fear of the doubtful States; therefore, if we wait for Congress to act on this question, I feel the wool industry is doomed, but we must join hands. Democrats and Republicans, and demand of our representatives a revision of the tariff on wool and woollens that will wipe out present inequalities that

are fast destroying us. Some ask for the restoration of the tariff of 1867. This would give relief; others ask for 13 cents per pound duty on unwashed wool and that changes should be made in the duties on goods to correspond. I am afraid we can not get either, and if we did the result would not be as beneficial as we anticipated; but if we have an amendment passed to the present tariff correcting its irregularities I know that within three months Ohio fine wools would bring 40 cents at your door. At present wool is divided into three classes—clothing, combing and carpet. Clothing wool under 30 cents value pays 10 cents per pound on unwashed, 20 cents on washed and 30 cents on scoured; over 32 cents pays 12, 24 and 36 cents respectively; combing pays only the same duty on washed as unwashed; therefore, excepting Australian, all combing wools are brought in washed at half the duty of washed clothing. This leads to fraud by the classification of washed clothing as combing, but the greatest wrong to wool-growers is in carpet wools, the duties being 2½ cents per pound on wool under 12 cents, 5 cents on wool over 12 cents, either washed or unwashed. The average duties on wools imported in 1886 were, on clothing between 40 and 50 per cent., on combing between 30 and 40 per cent., on carpet about 20 per cent. The result has been an importation of over 100,000,000 pounds carpet wool in 1886, 60 per cent. of which has been used for clothing purposes, and as a large percentage was scoured more clothing was made from these wools than from the clips of Ohio, Pennsylvania and Michigan combined. Many watch carefully the importations of wool and regard with jealous eyes the Merino wool, feeling that it competes with ours, but carelessly scan the figures 100,000,000 pounds of carpet wool that can not affect us; we raise Merino. The Australian Merino wool now imported costs from 80 to 90 cents per pound scoured, while Ohio Merino will not in any Eastern market bring over 66 cents per pound scoured. The imported Merino brings more, as it is used for purposes that our wools are not suitable for. Only a few years ago I sold Cape Merino wools 10 cents per pound less than ours to cheapen them. That was competition, but to-day there is none. You ask why this change of values? There are hundreds of sets of cards to-day running on carpet wools that formerly used our Merinos. Only a few days since one of my customers asked me for East India carpet wool. I said, "Why have you given up Ohio fleeces?" He replied, "East India scoured costs me less than half the price of Ohio. I prefer Ohio, but it costs too much." I have a sample here of this wool and also a sample of cassimere made from carpet wool that did not cost the manufacturer over 20 cents per pound scoured. Every pound of this wool is driving out a pound of Ohio scoured. Even with the insufficient duties the importers are not satisfied, but purchase wools in the unwashed state, scour them with alkalis and hot water, cleansing them of 60 per cent. impurities. The government has decided that these wools are only washed and admits them at 2½ cents per pound, or equal to 1 cent per pound in the original state. I have with me a letter offering carpet wool under 6 cents, so as to enter them at 2½ cents duty. The writer says: "Should these wools advance beyond the 12 cents limit we will put in enough low-priced wool to keep them below." One importer had the effrontery to ask Secretary Fairchild to permit them simply to declare that the wool cost over or under 12 cents, probably never over. Even Fairchild, with

his free trade ideas, decided that was going too far.

Gentlemen, the wool-growers have the power to correct this by demanding an amendment to the present tariff that washed wools of all classes shall pay double the duty of unwashed, scoured wools treble, and that wools washed in any other way than on the sheep's back or pelt shall be classed as scoured, and wool containing less than 12 per cent. of impurities shall be classed the same way. It will meet with opposition from those who have grown rich while you have grown poorer, but most of the manufacturers will endorse you in your demands, and your 1,000,000 of votes can not be ignored by Congress. This movement is spreading. Texas growers are moving, and there are none more active than those of Missouri—States that we could hardly look to for such a movement. I have taken so much of your time I will pass the wrongs of ring waste, nolls, tops, etc., but these points should be covered in the amendment, and I will only speak of one point more. Scoured clothing wool pays 30 to 36 cents per pound, while the average duty on scoured wool on goods imported in 1886 was less than 18 cents per pound, and about 100,000,000 pounds were imported. This is about equivalent to 6 cents per pound on washed Ohio fleeces. The Philadelphia Wool Merchants' Association has taken a very active part in this question, and so far have been unaided by the merchants of any other city. They are desirous to aid you to further your interests, and at the same time have no desire to antagonize those of the manufacturers. Our interests are identical, but we must not overlook the fact that the present inequalities have made some few rich and not fear the results of our actions, as far as they are concerned.

In the Dairy.

Sour Cream or Sweet--Which?

Whether sour cream is better for butter-making than sweet cream has not yet been satisfactorily determined in the minds of a great many dairymen. A correspondent of the *National Live Stock Journal* some time ago asked for the editor's opinion on the subject. He said he had always supposed butter made from sour cream would keep longer than that from sweet cream, but one of his neighbors claims this is not the case. The *Journal*, in answer said: "Among butter-makers and dealers in this country, the general opinion has been that butter churned from sweet cream is not so good and will not keep so well as that made from sour cream. In accordance with this belief, the great bulk of butter in this country is made from cream well soured, to insure good keeping quality, but with what success is well known. It is notorious that our butter will hardly keep sound long enough to reach a market, unless it is close by, and that it must be used at once if it is to be enjoyed. There is not much more safety in keeping our sour butter than there is in keeping green fruit, which perishes in the hands of all who hold it. That there must be something radically wrong is evident enough, but somehow neither maker or dealer, though assuming a monopoly of butter wisdom, seem to have the least idea, or suspicion even, of what is amiss.

"In the face of this general opinion and practice, there are here and there creameries and families in which butter is habitually made from sweet cream, which not only sells at the very top of the market, but keeps longer than when soured before churning. In Denmark,

the prevailing practice is the reverse of that in the United States. The best butter there is churned sweet, and is noted all over Europe and the world for its great excellence and durability. There is no country which exports butter that can compare, in its fine quality and stability, with that from Denmark. Science and the best practice would seem to be on the side of churning sweet. The late Dr. Voelcker, chemist to the Royal Agricultural Society of England, took strong ground against churning cream sour. He laid as much stress upon having cream sweet when it is churned as upon having it clean. Common sense would seem to coincide with Voelcker. That milk, when it has turned sour, is started on the road to decomposition, is not questioned by anybody, even the advocates of sour cream. What advantage it can be to the stability of butter fats to hold them for a time, either long or short, mingled with a mass of decomposing animal matter, in whatever stage of decomposition it may be, common sense is unable to understand.

"Either the sweet-cream or the sour-cream theory must be at fault. Both cannot be right. There is, however, an old adage which says that 'the truth lies between extremes.' Possibly there may be a compromise between these opposing views, and that it will be found in the end that cream before churning requires some age, or ripening, but should not quite reach acidity."

Dairy Notes.

Creamery butter is worked by being passed under the roller and pressed with a sponge covered with fine muslin. The butter passes under the roller about fifteen times, being turned and pressed each time.

A writer in *Hoard's Dairyman* says that having quantities of buttermilk and no hogs to feed it to, she mixed it with sweet skimmed milk, and the calves drank it readily and grew fat and hearty under the diet.

The *National Live Stock Journal* advises dairymen who complain of the difficulty of finding first-class cows for their dairies, to raise their own cows. The plan suggested is for the dairymen to raise the calves from his best cows.

The milk from sick or diseased cows should always be thrown away. Nothing spreads contagion sooner than impure or filthy milk; yet, as a rule, all the milk is poured into cans together, without regard to the condition of the cows.

In France the law requires that every person convicted of selling adulterated products shall himself advertise that fact by means of a placard hung up in his place of business, or attached to his wagon, for a certain number of months or weeks.

Temperature has more to do with preserving butter than anything else. If exposed to variable temperature no amount of salt will help it. If kept from contamination of odors, and in a cool place, it will retain flavor and keep much better than when preserved in brine. Brine, however, assists in many respects, but should not be depended upon entirely.

It is not always the cow that gives the most milk when fresh that proves the most profitable. Her "hold on" qualities may not be so good as those of a cow less promising at first. Better test them and find out what each one is worth at the end of a given time before disposing of the smaller milker. The old story of the swift hare and the slow-going tortoise may be illustrated by the two animals.

A sample copy of the *Normal Advocate* sent free to any one. Address *Normal Advocate*, Holton, Kas.

BREEDERS' DIRECTORY.

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

HORSES.

PROSPECT FARM.—H. W. McAfee, Topeka, Kas., breeder of Thoroughbred Clydesdale Horses and Short-horn Cattle. A number of choice bulls, also horses for sale now. Write or call.

M. D. COVELL, Wellington, Kas., fifteen years an importer and breeder of Stud Book Registered Percherons. Acclimated animals of all ages, both sexes, for sale.

CATTLE.

T. M. MARCY & SON, Wakarusa, Kas., have for sale Registered yearling Short-horn Bulls and Heifers. Breeding herd of 100 head. Carload lots a specialty. Come and see.

JERSEY CATTLE.—A. J. C. C. Jersey Cattle, of noted J. butter families. Family cows and young stock of either sex for sale. Send for catalogue. C. W. Talmadge, Council Grove, Kas.

W. M. BROWN, Lawrence, Kas., breeder of A. J. C. C. Jersey and Holstein-Friesian Cattle. Stock for sale. Bulls, \$50 to \$100; Heifers and Cows, \$50 to \$150. Send for catalogue.

H. H. DAVIDSON, Wellington, Kas., breeder of Polled Angus and Galloway Cattle. The largest herd in the State. Choice stock for sale at all times. Correspondence and orders solicited.

F. R. FOSTER & SONS, Topeka, Kas., breeders of Herefords. Bulls for sale.

OAKWOOD HERD OF SHORT-HORN CATTLE.—All recorded. Choice-bred animals for sale. Prices low. Terms easy. Imported Earl of Gloster 74522 heads herd. C. S. Eichholtz, Box 1208, Wichita, Kas.

F. McHARDY, breeder and importer of GALLOWAY Cattle, Emporia, Kas. Young stock for sale at reasonable prices. Liberal credit given if desired. Mention *KANSAS FARMER*.

WARREN, SEXTON & OFFORD, Maple Hill, Kas., importers of thoroughbred Red Polled Cattle. Bulls and heifers for sale. Railroad station, St. Marys.

D. H. FORBES, 198 Kansas avenue, Topeka, Kas., breeder of Short-horn Cattle. Six head of Bulls, from 7 months to 3 years old, for sale now on easy terms.

DR. W. H. H. CUNDIFF, Pleasant Hill, Mo., proprietor of

ALTAHAM HERD

and breeder of fashionable Short-horns. Straight Rose of Sharon bull at head of herd. Fine show bulls and other stock for sale.

GUERNSEYS.—Elm Park Place, Lawrence Kas. L. Bullene, dealer in registered Guernsey Cattle. Young stock for sale. Telephone connection to farm.

J. S. GOODRICH, Goodrich, Kas., breeder of Thoroughbred and Grade Galloway Cattle. Thoroughbred and half-blood Bulls for sale. Sixty High-grade Cows with calf. Correspondence invited.

CATTLE AND SWINE.

H. S. FILLMORE, Lawrence, Kas., proprietor of Green Lawn Fruit and Stock Place, breeder of Jersey Cattle and Poland-China Swine. Stock for sale.

M. H. ALBERTY, Cherokee, Kas., breeder of Registered Holstein-Friesian Cattle and Poland-China Swine. Also Pekin Ducks, Wyandotte and Plymouth Rock fowls. Stock and eggs for sale.

C. H. HOLMES & CO., Grinnell, Iowa, breeders of C. Jersey Cattle and Duroc Jersey Swine. Prices to suit the times. Send for catalogue.

PLATTE VIEW HERD.—Of Thoroughbred Short-horn Cattle, Chester White and Berkshire Hogs. Address E. M. Finney & Co., Box 790, Fremont, Neb.

ROME PARK STOCK FARM.—T. A. Hubbard, Wellington, Kas., breeder of high-grade Short-horn Cattle. By car lot or single. Also breeder of Poland-China and Large English Berkshire Swine. Inspection invited. Write.

SWINE.

ELM GROVE HERD OF REGISTERED POLAND-CHINA SWINE.—Z. D. Smith, proprietor, Greenleaf, Washington Co., Kas. Pigs and Sows bred, for sale. Satisfaction guaranteed. Eggs \$1.25 for 13; \$2.25 for 26.

WALNUT GROVE HERD OF POLAND-CHINAS.—V. B. Howey, proprietor, box 103, Topeka, Kas. My hogs are strictly thoroughbred, of the finest strains in America. All breeders recorded in Ohio Poland-China Record. Chief Commander No. 6775 at head of herd. Pigs for sale, from 2 to 10 months, from \$10 to \$25.

W. H. BIDDLE, Augusta, Kas., breeder of Pure-bred Poland-China Swine, from most noted strains. Also pure-bred Bronze Turkeys. Have a choice lot of early birds at \$4 to \$5 per pair. Pigs at reasonable rates.

W. W. WALTIRE, Carbondale, Kas., breeder for Hogs. Stock for sale.

J. M. McKEE, Wellington, Kas., breeder of Poland-China Hogs—A. F. C. R. Five kinds of Poultry. Choice pigs and fine fowls for sale. Prices low. Write.

ROBERT COOK, Iola, Kas., thirty years a breeder of Poland-China Swine of the very best and most profitable strains. Breeders registered in O. P. C. R.

W. M. PLUMMER, Osage City, Kansas, breeder of Recorded Poland-China Swine. Also Light Brahma Chickens. Stock for sale at reasonable rates.

BAHNTGE BROS., Winfield, Kas., breeders of Large English Berkshire Swine of prize-winning strains. None but the best. Prices as low as the lowest. Correspondence solicited.

F. M. LAIL, Marshall, Mo., breeder of the finest strains of

POLAND-CHINA HOGS AND PLYMOUTH ROCK CHICKENS.

Eggs in season, \$1 for 13. Catalogue free.

SWINE.

F. W. ARNOLD & CO., Osborne, Kas., breeders of pure-bred Poland-China Swine. Breeders all recorded in Ohio Record. Young stock for sale. Also Wyandotte and Langan Fowls and Pekin Ducks. Eggs, \$1 per 13.

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

SHEEP.

MERINO SHEEP.

Berkshire Hogs, Short-horn Cattle, and thirty varieties of high class Poultry. All breeding stock recorded. Eggs for sale in season. Write for wants and get prices. **HARRY McCULLOUGH**, Fayette, Mo.

IMPROVED REGISTERED MERINO SHEEP. Poland-China Hogs, Light Brahmas, Plymouth Rocks and Bronze Turkeys—all of prize-winning strains, bred and for sale by R. T. McCulley & Bro., Lee's Summit Jackson county, Mo.

SHROPSHIRE-DOWNS.—Ed. Jones, Wakefield, Clay Co., Kas., breeder and importer of Shropshire Down. A number of rams and ewes for sale, at lowest prices, according to quality.

H. V. PUGSLEY, Plattburg, Mo., breeder of Merino Sheep. Ewes averaged nearly 17 lbs.; stock rams, 34 lbs. to 38 lbs. Extra rams and ewes for sale. Also Holstein Cattle.

POULTRY.

TOPEKA WYANDOTTE YARDS.—A. Gandy, 308 Kansas avenue, Topeka, breeder of Golden, White and Laced Wyandottes. No Golden or White Wyandotte eggs this season. Laced Wyandotte pen No. 1, cockerel Topeka scores 92 points by I. K. Felch; the pullets Kansas Beauties score from 90 to 92; eggs, \$4 for 13, or \$7 for 26. Pen No. 2, \$2.50 for 13 or 26 for \$4. Rose-comb Brown Leghorn eggs, \$2 for 13, or \$3.50 for 26. All the Leghorn chicks for sale cheap.

IT WILL PAY YOU.—To send for our beautiful Illustrated Circular, full of valuable information. Sent free to all. Address C. A. Emery, Lock box 233, Carthage, Mo.

MRS. A. B. DILLE, Edgerton, Kas., breeder of Wyandottes, P. Rocks, Langhams, Pekin Ducks and Mammoth Bronze Turkeys. Wyandotte and Langham eggs, \$1.50 per 13; P. Rock and Pekin Duck eggs, \$1 per 13.

E. E. FLORA, Wellington, Kas. — Eggs, \$1 per 13. \$2 per \$30, for pure-bred Partridge Cochins, Plymouth Rocks, Light Brahmas, and Pekin Ducks.

COLLEGE HILL POULTRY YARDS.—Pure-bred Brown Leghorn and Houdan Fowls for sale. Also eggs for sale. Send for prices. W. J. Griffin, College Hill, Manhattan, Kas.

THE RELIABLE POULTRY YARDS.—A. D. Jencks, 311 Polk street, North Topeka, Kas., proprietor and breeder of choice Plymouth Rocks. Eggs booked now and shipped promptly at \$2 per 13. Satisfaction guaranteed. (Mention *KANSAS FARMER*.)

MRS. MINNIE YOUNG, Warrensburg, Mo., breeder of pure-bred Bronze Turkeys, White and Brown Leghorns, Light Brahmas, Pekin and Rouen Ducks. Eggs in season. Write for wants. No circular.

7 TOULOUSE GEESE EGGS.—\$1.50. Wyandotte, Plymouth Rock and Black Cochins eggs, \$1.50 per 13, \$2.50 per 30. I. H. Shannon, Girard, Kas.

Send stamp and name for Circular.

LIGHT BRAHMAS AND BUFF COCHINS.—Breeder of **FRANK L. WOLFE**, Topeka, Kas., Box 33.

TOPEKA POULTRY YARDS.—Wm. A. Eaton, Topeka, Kas., breeder of Plymouth Rocks, Light Brahmas, Partridge and Black Cochins. Can furnish W. & B. Leghorns and W. F. B. Spanish. Eggs \$2.25 per 13.

SUNFLOWER POULTRY YARDS.—T. S. Hawley, Topeka, Kansas, breeder of PURE-BRED POULTRY. Leading varieties.

MARMATON VALLEY POULTRY YARDS.—Mrs. Allie E. Milburn, (Lock box 1401), Fort Scott, Kas., breeder and shipper of thoroughbred L. Brahmas, P. Rocks, Wyandottes, B. Leghorns, B. Javas, B. Cochins, Mam. B. Turkeys, and P. Ducks. Fowls for sale at all times. Send for circular. Correspondence solicited and cheerfully acknowledged.

REPUBLICAN POULTRY YARDS.—Plymouth Rocks.—W. E. Doud, Eureka, Kas., breeder of Plymouth Rocks. Eggs, \$1.50 per 13. Birds for sale at from \$1 to \$5 each.

EUREKA POULTRY YARDS.—L. E. Pixley, Eureka, Kas., breeder of Wyandottes, B. R. Games, P. Rocks, B. and W. Leghorns, Buff Cochins and Pekin Ducks. Eggs and birds in season. Write for what you want.

N. R. NYE, Leavenworth, Kas., breeder of the leading varieties of Land and Water Fowls. DAKA BRAHMAS a specialty. Send for Circular.

SHAWNEE POULTRY YARDS.—Jno. G. Hewitt, Prop'r, Topeka, Kas., breeder of choice varieties of Poultry. Wyandottes and P. Cochins a specialty. Eggs and chicks for sale.

MISCELLANEOUS.

S. A. SAWYER, Fine Stock Auctioneer, Manhattan, Riley Co., Kas. Have Coats' English, Short-horn, Hereford, N. A. Galloway, American Aberdeen-Angus, Holstein-Friesian and A. J. C. H. R. Herd Books. Complete catalogues.

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.

Correspondence.

Why Silk Culture is Made Possible in the United States.

Kansas Farmer:

Since the publication of the United States Agricultural Report of 1883 and that of Consul Peixotto in the *Scientific American* of March 18, 1882, quoted by your correspondent, quite an advance has been made in the art of reeling, which now makes silk reeling as well as silk growing remunerative in the United States. Articles setting forth the advantages of the Tereell reel have been published in this paper. These reels have been invented since the publication of the articles referred to above, and are now in use by the government filature at Washington, D. C. Not many have access to the *American Silk Journal*, published in New York in the interest of silk manufacturing in this country, except those particularly interested in the industry. In the March number of 1886 is an article by a correspondent in Lyons, France, which elucidates the point. The article is too long to give entire, though intensely interesting, so will quote only a portion of it (if our editor will give it space). The writer pays a high compliment to our American inventors. "The growth of cotton in America, as a great industry, is directly traceable to a single mechanical combination of Whitney's. The development of the West and the ability of the United States to compete in foreign grain markets with wheat coming from other country was very largely determined by the invention of the cutting bar of the reaping machine; and very recently expensive and tedious lawsuits have shown how very nearly the telephone came to being successful years ago, and how one idea has changed the art of telephoning from the dream of a few scientific enthusiasts into an element of our daily life, the importance of which, although already immense, will probably become much greater in the future.

"Such examples might be multiplied to almost any extent, but those given are sufficient to emphasize and demonstrate the proposition with which I started, namely, that from time to time an inventor conceives an idea which is sooner or later destined to revolutionize the world, and even in some cases to change the details of civilization and daily life of entire people. I think that such is to be found at the root of the invention of Mr. Terrell for reeling silk from the cocoon. This industry, which is among those fairly entitled to be considered as among the great staples, is constantly increasing in importance. Among all the various arts it is the one which has been least affected by the changes of the past half century. Silk reeling is in general carried on to-day in France and Italy in the same manner as it was thousands of years ago, and up to a very recent time the possibility of performing it by automatic machinery was not admitted.

"Previous to Mr. Terrell's invention a mechanical automatic silk reel was considered by everybody familiar with the industry as chimerical as a practical flying machine is thought to be by the general public to-day. When Mr. Terrell first came to Lyons in the summer of 1880, and was introduced by Mr. Peixotto, then the American Consul here, to the great silk industrialists of France, though he had a general idea that the increased accuracy and sensibility which might be obtained in the control of machinery through the use of electricity might make it possible to produce an apparatus of sufficient exactitude to enable him to reel silk automatically, his present great invention, for which patents have now been issued throughout the world, was still in comparative obscurity. It was not till he had been in Europe many months and had rendered himself familiar with the art as practiced in its greatest perfection in France and Italy that he conceived the idea which I believe to be the fundamental and basic thought which will be found in the future to govern the production of silk, as the cotton gin, the spinning genny and Jacquard loom may be said to govern the department of industry to which they are applied.

"The idea is the constant measurement of the running thread of silk, by means of its strength and resistance to a fixed elongation while passing through the machine, owing to the great strength of the thread of silk,

either ginney or not, whether round, or flat, or irregular in shape, and while running at the rate of from 150 to 200 meters per minute may, by very ordinary mechanical appliances, be caused to give indications of its size so exact that a variation of its weight which would not make a difference of more than fifteen pounds in a thread long enough to stretch around the world at the equator can be shown on the machine and corrected automatically. On a thread a mile long this difference is only 3-5,000 of one pound, and on a thread 100 feet long is so small as to require a very delicate balance to detect it. When he first began to run this machinery, Mr. Terrell made the controlling apparatus to run on a considerable length of silk, but he found the sensibility of the apparatus was such as to permit of the shortening of the parts under test, as it were, in the machine, and at present he only uses about a foot of the thread, which, as it runs through the apparatus, is quite sufficient to give all the indications necessary for the maintenance of its size. He still uses an electric circuit to actuate the trigger motion which sets in movement the feeding apparatus of the machine, but the movements are really carried out and the whole machine is run by the ordinary steam or water power of a reeling establishment.

"Ever since Colonial times it has been admitted that the want of automatic machinery for reeling silk from the cocoon was the only serious obstacle to the successful introduction of silk growing and reeling in America. That this want is now supplied there is no possible doubt, and we may look forward with confidence to a day in the near future when the United States shall have triumphed over another and apparently insurmountable difficulties, and shall have added one more to her varied list of industrial successes through the labor and skill of her inventors."

MARY M. DAVIDSON, Silk Culturist.
Junction City, Kas.

Insurance Among Farmers.

Kansas Farmer:

In the *FARMER* of the 14th inst. Mr. Fishbaugh has some disparaging remarks about farmers. If he is a farmer, we will have to regard him as the black sheep of the fold. If he is only dealing with farmers, he can not be much better, for as like seeks like, that class of farmers portray his own qualities. Nor can we endorse his advice in conducting farmers' meetings. It is not the red-hot wrangling, but calm, deliberate discussion that imparts information. In the same issue "*FARMER*" may feel greatly elated because he got \$500 without paying a cent. We all know that the business of insurance has improved of late years, yet from the nature of the case they must take more money out of the country than they bring in in order to pay expenses of high-salaried officers. Yet they undoubtedly do some good in equalizing the individual losses, though increasing the aggregate loss. But to come to my subject—"Insurance Among Farmers." Is it practicable? I answer yes; and here I speak from experience, and shall say only what I know to be so. On the 19th of January, 1886, if I remember date rightly, I helped to organize an insurance company among the farmers in Jackson county, Indiana, acting as Secretary. The officers were a President, Secretary, Treasurer, and two Assessors. The rules established were about these: Each member could value his buildings, etc., as low as he pleased, but not above the value as estimated by the two Assessors. A description and value of each one's insured property was carried into a book; also a copy given to each member of his own. In case of fire the two Assessors were at once summoned to determine the amount of loss, which they reported to the other officers, who made the necessary assessment; and the Secretary informed each member of the amount assessed against him. This had to be paid in a certain time, or membership would be forfeited. Each member that failed to attend the annual meeting for election of officers had to pay a quarter. This furnished money enough for incidental expenses. We started with about \$100,000 worth insured. Before I started for Kansas (1873) we had one fire; and the assessment we made was promptly paid to the last cent. It was a rule that whoever moved away lost membership. I have learned that the company is all right yet; had one fire since, and

is much stronger now. Another organized in an adjoining county was also successful. One essential point is, such companies must be kept within a certain limit, so the members all know each other. No fire, no expense, because there are no salaried officers, except a few dollars to the Assessors and Secretary.
H. F. M.
Carson, Brown Co.

The Dependent Pension Bill.

Kansas Farmer:

The *FARMER* of the 16th of February, in an editorial on the vetoing of the dependent pension bill, approving the veto message, and goes to some length in justifying the President for exercising the veto power and the reason assigned for doing so. "Reasonable people," the editor concludes, "will accord patriotic motives to the President in this matter."

Unfortunately or otherwise, I am of the opposite class of people referred to above, and I do not think there are very many of the old soldiers of the G. A. R. that indorse the President's veto, or that will ever by their votes make it possible for him to do so again. Among the reasons given for the veto was a slur and an insult to every man who took his life in his hand, leaving his home, family and loved ones, while he went forth in defense of his country, enduring the hardships, privations, dangers, and, if necessary, death, to perpetuate this government whereby it was made possible for this great paragon of knowledge to be President, this wonderful political economist who knows more than both houses of Congress combined. He tells the country and all the old soldiers that the bill would open the floodgates of fraud; that is, the dependent soldiers and their relatives who would be benefited by this act of charity would resort to dishonest means to secure their claims under this bill which the President calls an act of charity. Now I do not claim absolute perfection for our ex-soldiers and their relatives, but I do claim that as a whole they are as honest and as good citizens as any other class of citizens of the same number.

As to the slur cast upon the men who offered their all for their country, that this bill was intended by Congress to be understood or construed as an act of charity, no one with a thimbleful of patriotism will believe. The government never has, never will, and never can bestow charity on the men who saved this country from dismemberment. All this nation is, or ever will be, is due to the heroes and their unselfish devotion to their country of which this great mogul of the nineteenth century is now the Chief Executive; and he by the authority of the constitution vetoes this charity bill, and our good editor lauds him for the act.

Then, in the *FARMER* of March 10, a correspondent gushes over with profuse thanks to the editor for the stand taken on the veto, and says he "thinks it is high time a halt was called on pensions." Well, this kind of talk is in accord with a resolution passed by a convention that once upon a time was assembled at Chicago during the dark days when these same men whose names now compose the pension roll were receiving the injuries that made them pensioners. This correspondent's talk has the same ring to it that the above resolution referred to had. It read something like this: "Resolved, That after four years failure of war to restore peace, we demand a cessation of hostilities."
G. W. BAILEY.

Wellington, Kas.

[Friend Bailey may not know it, but it is a fact, nevertheless, that the editor of the *KANSAS FARMER* was three years a soldier, but was never in the most remote degree in sympathy with the Chicago convention to which reference is made nor with its spirit or its resolutions, or its members.—EDITOR.]

From Ellsworth County.

Kansas Farmer:

The first rain of the season commenced the night of the 17th, and rained all night and all day Sunday. It was a God-send to this part of Kansas, as the grass was about dried up. This was the first rain since last October, very little snow last winter, water was getting very scarce on the uplands, and stock was suffering in some localities for both feed and water. But this rain will bring the grass. Wheat is looking well considering the drouth, all except late plowing, which came up very uneven and was frost-killed in spots.
J. T. MCKITRICK.
Wilson, Ellsworth Co.

Sorghum, Johnson Grass, Etc.

Kansas Farmer:

Seeing in the *FARMER* several inquiries about sorghum, Johnson grass, etc., I will write a little of my experience and observation. I sowed some Johnson grass three years ago this spring. I have not examined it this spring, but last spring and the spring before the roots seemed to be all dead, and each spring I plowed it up, but each time there was seed enough plowed in to re-seed the ground; so I still had it, but each year only such a crop as could be obtained from fresh seeding, which is not heavy enough to pay; so he who sows it may expect to have it and not have it at the same time. That is, he has it to occupy the ground, but not to yield any considerable profits.

As for sorghum, I have raised it three years and each year with some satisfaction, though I can not say, with some, that it is equal to oil cake or that it is the best of fodder; but I will say this, that it will produce more fodder per acre, and with greater certainty, than any other plant that I have any knowledge of. Sow a bushel to a bushel and a peck per acre, cut with mower when nearly mature, but not quite, let dry a week, then rake and cock and let stand till wanted for use. Feed in racks, and it will be no trouble to get the cattle to eat enough of it; but remember it is for fodder only, not fodder and corn too. Those who have a good reaper and time to do so can give it better handling than I have described, by cutting with a reaper and setting it up in shocks like corn, either immediately after the reaper or a day or two later, and it will cure out perfectly and make hay that horses greatly prefer to prairie hay, or, I think, any other hay; but it takes more work this way than the way first described; still, for horses, and I am not sure but cattle, too, it will pay for the extra work. He who plants with a corn-planter will perceive next fall that he has made a mistake.

I have also tried meadow oat grass and alfalfa. The alfalfa is a failure, both for me and for others who have tried it here. I sowed two bushels on land that seemed to be in good heart, but it would not yield anything for me, so in two years I plowed it up. I notice in the case of a neighbor who has it in his hog pasture that his hogs will not eat it when they can get anything else to eat.

Of the oat grass I have a small patch sowed three years ago, but too late to get a good stand; but what there is seems to do well, and is the earliest grass in the spring that I know of, being good pasture by April 1; but the trouble is to save the seed, as it has the unpleasant habit of ripening the seed unevenly, and then the seed falls off about as fast as it ripens.

Has any reader of the *FARMER* any knowledge of the Kafir corn? I should like to learn something of it, also more concerning milo maize.
JOHN ARMSTRONG.

Ackley, Ottawa Co., Kas.

Bad Results of Castration.

Kansas Farmer:

I have been a resident of Kansas nearly twenty years, have handled stock in a small way during my residence here, have always castrated my young stock during the spring months, and at some times I have noticed they swell more from the effects of castrating than at other times. On the 11th of this month I castrated a number of shoats weighing from 75 to 150 pounds each, and all have swelled worse than I ever saw before. This morning I find one dead, and I presume more will die. They all were in fine shape before I operated on them. Has the changes of the moon or the signs of the zodiac anything to do with matters of this nature? I wish to hear from other farmers through the columns of the *KANSAS FARMER* on this matter.
W. H. ANDERSON.

Concordia, Cloud Co.

Stewart's Healing Cream, for chapped hands, face, or gentlemen to use after shaving. The cheapest and best article for the purpose in the world. Please try it. Only 15 cents a bottle at drug stores.

A horse at Edinburgh, Scotland, catches and kills the rats that venture into his feeding trough to share his oats.

Itch, Prairie Mange, and Scratches of every kind cured in thirty minutes by *Woolford's Sanitary Lotion*. Use no other. This never fails. Sold by Swift & Holliday, druggists, Topeka, Kas.

Gossip About Stock.

The recent Colorado quarantine proclaimed April 19 does not affect Kansas, as generally supposed, but refers to States east of Kansas.

G. L. Chrisman, of Independence, Mo., makes a grand offering of some high-bred Short-horn cattle at Independence, Mo., on Wednesday, May 25. See advertisement and send for catalogue.

The recent rains, which have thoroughly soaked every acre of Kansas, has had an enlivening effect on the stock interest, and the indications are that 1887 will be a prosperous year for stock raisers generally.

G. S. Burleigh, who is so well and favorably known to Hereford breeders in Kansas and the West generally, advertises a public sale of Herefords to be held at Kansas City, May 18, 1887. Send for sale catalogue and mention KANSAS FARMER.

The attention of stockmen is directed to the advertisement of Charles Nelson's closing-out auction sale of Short-horn cattle, to be held at Fort Scott, Thursday, May 26, which appears in this issue. Mr. Nelson is determined to close out these cattle without regard to price, and a favorable opportunity will be afforded farmers to supply themselves with thoroughbred cattle at beef prices.

Phil Thrifton writes from Springfield, Ill.: "A Philadelphia man here this week in the interest of a 'sure cure for hog cholera' falls to find any subjects on which to experiment. And so may it always be. Our farmers will be glad to get along without any further experimental knowledge in this way, and we can also do as well without the patent medicine man, the tree peddler, the lightning rod vender, the traveling implement man, insurance agent, and all other pseudo philanthropists who tramp the country, leaving behind them too often sad remembrances of misplaced confidence and receipts for money or orders for goods that afterwards turn up as notes of hand to be paid by the victimized farmers. But the men who subscribe for good news and agricultural papers are not often caught in this way."

E. S. Shockey writes: "The Early Dawn Herd boasts of the best crop of the finest specimens of Hereford calves it has ever had—all the get of the celebrated bulls, Beau Monde and Beau Real. Trade this spring exceeds our most sanguine expectations and is proof that good Herefords are in great demand. Kansas farmers are buying more Hereford bulls this year than at any time heretofore, and the indication is that the fertile prairies of our great and rising State will soon be dotted with the red with white face steers. We have just taken the weights of our steers and find them averaging 11 months in age and beating 1,000 lbs. It has always been our prediction that when once the farmers would quit raising grade bulls and go to raising steers then would be the time that Hereford cattle would be in strong demand. I can raise Hereford steers and make more money than the man who raises grade bulls and sells them at \$50 per head at 14 months old."

Patents to Kansas People.

The following is a list of patents granted Kansas people for the week ending April 16, 1887; prepared from the official records of the Patent office by Mr. J. C. Higdon, solicitor of patents, Hall building, Kansas City, Mo.:

Sash fastener—Elnathan W. Allen, of Belle Plaine.
Kitchen cabinet—James S. Beckwith, of Belleville.
Postoffice signal call box—Edward O. Bryden, of Caldwell.
Floor clamp—Milton D. Good, of Hope.
Machine for forming the heel calks of horse shoes—George Uhlir, of Rosedale.

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.

The Governor of New York vetoed the high license bill, on the ground that it applied to only two cities, Brooklyn and New York, and not to the whole State.

PHILADELPHIA. ST. LOUIS. CHICAGO.

ROOFING!



Ehret's Black Diamond

PREPARED ROOFING

Has been in use nearly FIVE YEARS. In that time nearly one hundred million square feet has been used.

THE FARMER

Can put this Roofing on himself, thus saving at least a dollar and a half per square over shingles, two dollars and a half over iron, and three and a half dollars over tin. Then he gets an air-tight roof, one absolutely waterproof, practically fire-proof.

The Chicago Lumber Co. have bought our Roofing at different places, and here is what they say:

MARION, KAS., December 6, 1886.

Have used your Prepared Roofing four years and considering the durability, think it the best and cheapest Roofing that can be used.

CHICAGO LUMBER CO.

N. B. Freeland, of Larned, Kas., is a prominent attorney at that place. He says:

Please send me by freight one six-gallon keg of your Roofing Asphaltum. My roof has been in use three years without re-coating, and needs to be re-painted. It has been very satisfactory.

N. B. FREELAND.



ROOF YOUR OWN BUILDINGS. PRICES ARE LOW. GOODS THE FINEST. Weight of 2-ply Grade, only 80 pounds; weight of 3-ply Grade, only 90 pounds.

We make a fine ASPHALT PAINT for Tin and Iron roofs, and our ASPHALTUM CEMENT is fine for leaky Shingle and Board roofs.

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Come and see them or write for what you want.
J. M. HENSON CO.,
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THE SOUTHWEST CORNER COUNTY and BEST County in Kansas. Fertile soil, fine climate, pure and never-failing water. Health unsurpassed. CHEAP HOMES, Government and Deeded Lands. For particulars, write to Pierce, Taylor & Little, Richfield, (county seat), Morton county, Kas. They are old and reliable Land Agents of the Southwest. Your business will receive prompt attention. Information free. Correspondence solicited.

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Rate \$1.50 Per Day.

Convenient to Stock Shippers. A good Family Hotel.

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at one-half regular store prices. Ribbon manufacturers usually sell only to the wholesale dealers; they in turn supply the retail trade at a profit of from 10 to 20 per cent; the store keeper, retelling it by the yard, must make a profit of at least 25 per cent. to pay rent, clerk hire, &c. This explains why good ribbons are so expensive. We propose to save you all these middlemen's profits, and with that end in view, have prepared a package of extra quality ribbons, different widths, in all the most fashionable shades, adapted for Bonnet Strings, Neck Wear, Trimming for Hats and Dresses, &c., &c., at the extremely low price of 35c. or 4c. package to one address.

for \$1.05. Get three of your lady friends to order a package at 35 cents each, and thus get your own free. No pieces less than one yard in length. Satisfaction guaranteed.

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We have purchased at recent wholesale auction sales several large lots of Remnants of Silk Ribbons at prices which will enable us to offer splendid bargains. These remnants are all from two to three yards and upwards in length, and many of them are the finest quality of Ribbons in the market, of different widths, in a variety of fashionable shades, in fact, nearly all colors are represented; also different kinds of Ribbons adapted for bonnet strings, neckwear, trimming for hats and dresses, bows, scarfs, etc., etc. No lady can purchase such fine ribbons as these at any store in the land for four times the money. If you will agree to show the goods to friends, and aid us to make sales, we will send a sample box of these elegant ribbons for 35c. cents in stamps. Two boxes 60 cts. Four boxes \$1.00. Ten boxes \$2.00. Address PARIS AGENCY, 7 West Broadway, New York.



Dana's White Metallic Ear Marking Label, stamped to order with name, or name and address and numbers. It is reliable, cheap and convenient. Sells at eight and gives perfect satisfaction. Illustrated Price-List and samples free. Agents wanted.

C. H. DANA, West Lebanon, N. H.

IMPROVED
HIRES' ROOT BEER

25 CENTS PACKAGE
Makes Five Gallons of a delicious, sparkling temperance beverage. Strengthens and purifies the blood, its purity and deliciousness commend it to all. Sold by druggists and storekeepers everywhere.

The Home Circle.

How Little We Know of Each Other.

How little we know of each other,
We pass through the journey of life,
With its struggles, its fears and temptations,
Its heart-breaking cares and its strife,
We see things alone on the surface,
For few of us glory in sin;
And an unruffled face is no index
Of fires that rage wildly within.

How little we know of each other,
The man who walks quietly by
With wealth and with honor and title,
And holds his head proudly on high,
Oft carries dread secrets within him
That render existence a curse;
Dread secrets that sear his soul over,
Of crime, or misfortune, or worse.

How little we know of each other.
The woman of fashion who sneers
At her sister whom fate has abandoned
To poverty, misery, tears,
May prove ere the sun rises to-morrow
More deeply immersed in disgrace,
And the sadness sneered at in another,
Be pictured upon her own face.

How little we know of each other.
Of our own hearts how little we know,
We are all feeble under temptation,
Be our station in life high or low.
Ah! then, let sweet charity rule us,
And help one another to win
The crown that awaits those who strive for
Avoidance of shame and of sin.

Man, foolish man!
Scarce know'st thou how thyself began;
Scarce had'st thou thought enough to prove
thou art;
Yet, steeled with studied boldness, thou dar'st
try
To send thy doubting Reason's dazzled eye
Through the mysterious gulf of vast immen-
sity. —Prior.

With eyes upraised, as one inspired,
Pale Melancholy sat retired,
And from her wild sequester'd seat
In notes by distance made more sweet,
Pour'd through the mellow horn her pensive
soul. —Collins.

Thoughts From Mrs. Hunter.

So many thoughts occur to us during this every-day Kansas life, which, owing to many duties, must necessarily be "laid on the shelf," until, were we to attempt to put them all into one letter, they would resemble that burlesque on patchwork, the crazy quilt, and since that same burlesque received such general admiration, I feel safe in the venture.

To-day, April 9, 1887, a furious dust storm obscures the sky and even the sun, live stock and fowls are driven to the sheltered nooks, we voted carpets a nuisance, and stripped the floors, when with the aid of moist bran or meal we can sweep the dust out. How dreary it looks, even the tall cottonwoods along the river refuse to don a spring costume, but stretch their bare limbs, white and black, through the murky driving blast.

People have been planting steadily during the past week gardens and field crops, but fast as the tender plants appear they are devoured by the voracious insects. So much for the beginning of the season, yet we may have rain before this reaches you. Even the ants anticipate rain, by throwing up loose earth about the entrance to their lowly habitations. So we may be pardoned if we follow the instincts of dumb nature in expecting rain. Nor is humanity one whit behind her efforts to foretell that which she most desires, and never so certain. One is but human judgment, the other the expression of divine wisdom, which is manifest in all nature. And that reminds of the recent city election, the Republicans nominating a full ticket, all the other elements uniting on a people's ticket. The Republican press proclaimed success before election. A little "too previous," it turns out, as the people's ticket was elected by a large majority. No doubt their anticipations were based on the presumed obligation of the suffrage and temperance people to the late Republican Legislature, instead of on the principles which have developed these elements. It is this same mistaken view of party obligations as being superior to principles that caused many to oppose woman suffrage as a measure designed to degrade the feminine voters. Granting that political parties are necessary to the perpetuation of civil government, and supposing these parties to embody the vital principles necessary to the prosperity of the governed, the utility of these parties, if separated from the ennobling principles of truth and justice, must gravitate; hence the term machine, which means without soul or vital principle. A machine is only valuable when used for a legitimate purpose. As one force in nature may suspend an inferior force, so may these principles of truth and

justice suspend the party machine, reconstruct and place it on a broader, more elevated platform, and the government, which is "of the people, by the people, and for the people," be incalculably benefited thereby.

Nor do we feel it incumbent to beg this question of women's suffrage. It is a moral, political necessity. While on the one hand there has been a gradual gravitation toward demoralization by the political element in our civil government, on the other hand in civil society there has been a gradual accumulation of moral capital, vested in various moral classes, its position popularly described by the limits of "moral suasion," it has never been aggressive, and consequently that prerogative was denied it by its opposite. This moral capital is threatened; it now proposes to regulate the machine, in order to insure its safety and prosperity. Being a superior force, in the nature of things it will accomplish this end by any and every means that can be legitimately used. And the obligation of classes or individuals to take action in this matter is in proportion to the amount of (so-called) moral capital they may have invested in this civil and social corporation. Let the fearful and short-sighted ones hide till the storm is past. Moral courage and ability are what the "exigency of the times" demand.

Rain last night. MRS. M. J. HUNTER.
April 10.

From "Bramblebush."

The *Ladies' Home Journal* gives the following pattern for crocheted edge, which is very pretty for children's aprons:

Make a chain of 12 stitches; turn.

First row.—1 t. c. in 8th stitch of chain, 3 t. c. in 10th stitch of chain; ch. 2, 1 t. c. in last stitch of chain; turn.

Second row.—Chain 5, 3 t. c. under ch. 2 of last row, 1 t. c. in top of 4th t. c. in last row; ch. 2, 8 t. c. in loop made at commencement of first row; turn.

Third row.—Ch. 4, 1 single crochet in top of 2d t. c.; ch. 4, 1 single crochet in top of 4th t. c.; ch. 4, 1 single crochet in top of 6th t. c.; ch. 4, 1 single crochet in top of 8th t. c.; ch. 5, 1 t. c. in top of 1 t. c., 3 t. c. under ch. 5; ch. 2, 1 t. c. in 3d stitch of ch. 5 at end of row; turn.

Repeat from second row.

T. C. means treble crochet.

The Syracuse (N. Y.) *Herald* tells how to make a bag for carrying work. It is made of a silk handkerchief, with or without a fancy border, to suit your taste. Sprays of flowers are embroidered with chenille and silk in the four corners inside of the hem or border. Pieces of narrow ribbon are sewed on the points of the corners inside the handkerchief in the form of loops convenient for passing a length of wide ribbon through to draw together the bag. The broad ribbon is tied in a bow and is used as a handle in carrying the bag.

Now is a good time to lay in a supply of aprons for the summer. For cook aprons I like them made of gingham, and made so that they cover your dress well, while for afternoon wear white aprons are made of light-colored calico. For my little girl I make them of gingham, long sleeves and high neck for winter, but in summer I make them of calico, lawn and a few pretty white ones. They are made low neck and short sleeves. Little Mother Hubbard aprons are also pretty.

I think that the editor must be very fond of poetry, for he always makes such good selections for the "Home Circle." How many mothers read in the *FARMER* of April 7, "Be Patient With the Children." How true it is—"They are such little feet." How often do we in imagination look ahead and wonder what the years will bring to them, and how earnestly we hope that the little feet will not stray from the right path. And "The Children's Hour," in the *FARMER* of April 14, has always from childhood been a favorite of mine. And did you notice the little gem by George Eliot—"You love the roses? So do I." BRAMBLEBUSH.

The price of Shallenberger's Antidote for Malaria, one dollar a bottle, is sometimes in the way of larger sales, but if it will remove every trace of malaria after a few doses, and leave you well, is it not far cheaper than a continuous use of quinine and tonics at any price, which only strengthen the system against the poison, allowing it to remain and renew its attacks indefinitely?

Home Decoration.

The decoration of the home is a subject that has occupied the attention of women for some ages. Our grandmothers were seldom seen on an evening without their embroidery frames before them, upon which was a sampler into which they plied their needles while laughing and talking, and deftly forming the while on the samplers miniature landscapes, which usually consisted of a house, some trees and two peacocks. I never could rightly understand why those peacocks should be there, as the dwellings were, generally, very commonplace, and two good, sober, Bolton Gray hens would have been more in keeping. When the samplers were finished they were framed and hung up on the walls of the different rooms, both as ornaments and specimens of the needlework done by the ladies of the house. Another kind of work, very popular as well as useful among all women in those days, was the piecing together of quaint patterns of quilts to be used as a covering on the bed, which usually was a prominent feature of the best room. Braided mats, either sewed together oval, round or square, and hooked rugs made into different patterns, were also used extensively for home adornment. These mats and rugs are used a great deal even to-day outside of the cities, and for real comfortable floor coverings there is nothing that can take their places. Then there was the dresser on which the crockery, or delft, as it was then called, stood with back to the wall and clean, shining faces, upon which were blue pictures of that land and people which to the people at that time was almost unknown. Upon this cupboard was also the silver or pewter—according to the means of the family—teapot, highly polished. The andirons, bright and glistening, were another feature of the house decoration, and so artistic are these considered that to-day the andiron is one of the principal ornaments in the home of an artist. These were some of the home decorations of the olden time.

The embellishment of the home is of very great importance, as can be seen every day by visiting the homes of the people, and the number would be very small, indeed, that have not some would-be artist in their midst who contributes his or her mite to the beautifying of the home. These home artists are excellent people to have in a family, for the house is seldom without some knickknacks to embellish it, but it does not require that the person should have much artistic taste to gild a horseshoe and tie it with bright-colored ribbons, or to cover a tiny rolling-pin with plush, screwing in small brass hooks on which to hang your keys, yet both these ornaments look pretty. To gild the former buy at an art store or druggists', as most of the latter keep it, some Diamond gold paint and use as directed. This paint is excellent for gilding many of the decorative articles now in vogue.

Have you any small pictures that you wish to frame? If so, cut from stiff pasteboard any pattern of frame you desire to fit the picture, and cover with glue; upon this shake some grains of rice very thickly; when dry, gild the whole or paint with paint made by dissolving red sealing wax in alcohol.

Painting on pottery is one of the most popular kinds of decorating just now, and little brown jugs, urns, vases, etc., bronzed, gilded or plain, can be bought at the art stores. To make the work stand out and give it a raised effect, use red sealing wax dissolved in wine to the consistency of paint, and apply with a small brush. The effect is very pretty, and one will be well pleased who tries it.

Painting on velvet, that has been popular for some time, still retains its hold upon the amateur artist, and many beautiful things, such as banners, sofa cushions, lambrequins, etc., bear testimony to its decorative effect in the home. This may be done very nicely by any one having a taste for such work, after a little practice in using the colors, by stretching the piece of velvet to be painted tightly over a sketching board or frame, and tracing the outline of the pattern in chalk, and covering all with a thin coating of glue or diluted gum arabic. Let it stand until thoroughly dry, then paint in the ordinary way with oil colors, using turpentine sparingly.

Wood painting is also very popular as a decoration, and to the amateur artist is very

fascinating work. Square panels have supplanted the much-used plaques, and are easier to paint, owing to their flat surfaces.

Decorate the home, then, as much as you will. A woman of an artistic temperament will not over-furnish her house, giving it the appearance of a Turkish bazaar, and for a person lacking this taste, what if she does transgress the laws of art? better that she should do so than that her home be bare of embellishments.—*American Cultivator*.

The Short Hair Craze.

The short hair craze died some time ago, but the disease has broken out again, and the headachey dames, married coquettes and girls who go the pace have taken up the fad again. The regular "close cut" is ordered, and then follows a coiffure a la Cupid. This consists in having what is called a steam curl, the process being the same as that employed by barbers in turning the mustache ends of club men. An improved curler heated by steam is used in the operation, consuming an hour or so. The curls are short, close, but thick little ringlets exactly like those that the sculptors have identified the blind boy with. Only 50 cents is charged for the dressing, which is remarkably cheap, considering the tenacity of the curls. Think of curls for three weeks retailing at 50 cents, curls, too, that women can sleep in, and look pretty in, which is best of all features. No dressing is needed to keep the head slightly.

When the fair damsel arranges her toilet after getting in and out of numberless skirts, it is only necessary to run a rack comb diagonally through the lanky tresses to have them as roguish and graceful as though twisted by nature's own curling iron. Indeed, the curls are improved by much tossing and blowing about, and if the girl is half pretty, and any place under 25, she is sure to have in her jaunty wig a captivating air.—*Inter Ocean*.

Salt.

A morning hand bath in cold salt water is delightfully invigorating.

Warm salt water inhaled through the nostrils will cure cold and catarrh.

A pinch of salt taken frequently will stop a cough or throat irritation.

A glass of salt water, warm or cold, taken on rising in the morning will cure constipation.

Bathing the eyes when tired or weak in warm salt water will soothe and strengthen them.

Salt, plentifully sprinkled on the icy doorstep, will have a better and cleaner effect than ashes.—*Prudence Prim, in Good Housekeeping*.

Prematurely Aged.

Many a woman is robbed of those charms which the gentler sex value so highly, and made old before her time by functional irregularities. To such the bloom of youth may be restored by the use of a remedy which has stood the test of time and which is to-day acknowledged to be without an equal as a cure for all female weaknesses—Dr. Pierce's "Favorite Prescription." By all druggists.

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BAKING POWDER
Absolutely Pure.

This powder never varies. A marvel of purity, strength and wholesomeness. More economical than the ordinary kinds, and cannot be sold in competition with the multitude of low-test, short-weight alum or phosphate powders. Sold only in cans. ROYAL BAKING POWDER CO., 106 Wall Street, New York.

The Young Folks.

How to Be Happy.

Are you almost disgusted
With life, little man?
I will tell you a wonderful trick
That will bring you contentment
If anything can,
Do something for somebody, quick;
Do something for somebody, quick!

Are you awfully tired
With play, little girl?
Weary, discouraged, and sick?
I'll tell you the loveliest
Game in the world,
Do something for somebody, quick;
Do something for somebody, quick!

Though it rains like the rain
Of the flood, little man,
And the clouds are forbidding and thick,
You can make the sun shine
In your soul, little man,
Do something for somebody, quick;
Do something for somebody, quick!

Though the skies are like brass
Overhead, little girl,
And the walk like a well-heated brick;
And are earthly affairs
In a terrible whirl?
Do something for somebody, quick;
Do something for somebody, quick!

—The Earth.

I but open my eyes—and perfection, no more
and no less,
In the kind I imagined, full fronts me, and
God is seen God
In the stars, in the stone, in the flesh, in the
soul and the clod.
And thus looking within and around me, I ever
renew
(With that stoop of the soul which in bending
upraises it too)
The submission of man's nothing-perfect to
God's all-complete,
As by each new obeisance in spirit, I climb to
his feet.
—Browning.

Flowers, ye are bright of hue,
Delicate, sweet;
Flowers, and the sight of you
Lightens men's feet;
Yea, but her worth to me,
Flowerets, even,
Sweeteneth the earth to me,
Sweeteneth Heaven. —Austin Dobson.

Uncle Sam's Cavalry.

"People have an idea that the recruiting offices of the United States army take most anybody who comes along," said a newly-enlisted man in the cavalry service to a reporter. "But that is a great mistake. I took pains to find out something about this when I entered my application, and learned that only about one man in thirty of those who apply to enter the cavalry service are able to successfully pass examination. Last month out of forty-four who applied only eight were accepted. Instead of jumping at a man, as people suppose, they put him through the most rigid and thorough examinations, and after it all they ask him over and over if he is sure he knows his own mind and is fully satisfied to give his services to the army for five years. You have got to be sound mentally and physically, and your eyesight and hearing are put to very severe tests.

"The way they tried my eyesight was this: A man holding a pack of cards stood at a distance of twenty feet from me and the doctor put one hand over one of my eyes. The man with the cards held up one after another in quick succession, and I had to call off the number of spots on each card. If you fail in telling one card correctly you are rejected. In testing my hearing they turned me so that my back was toward the man at the other end of the room and the doctor placed his hand over one of my ears. Then the man called off, in low, monotonous tones an improvised and incorrect multiplication table, such as 5 times 8 is 36, etc., and you must repeat what he says without the slightest hesitation. Men often get caught at this, hearing only part and supplying the rest as if it were correct multiplication.

"I learned, too, that some men during the five years save as much as \$1,000, becoming teachers and doing extra duty, for which there is extra pay. Others lend money on interest to their comrades and make a good deal that way. Besides this, there is a sort of savings bank established by the government which pays interest on the savings of the soldiers. One can also save on the allowance for clothing and the home fare allowed after your term of enlistment is over. Three-quarters of the Western ranchmen, I am told, are ex-soldiers who have invested their savings in land out there. A great many who enlist in the cavalry are well-educated college-bred men." —New York Mail and Express.

A cross-eyed cat, one of the few known to be in existence, is owned by Mrs. George Hebard, of Hartford, Conn.

Great Fun.

It is wonderful how uncomfortable people can be, and still be happy. Wonderful, too, is a boy's idea of "a good time." Take this California scene:

Just before we reached our destination we passed a tent where an adventurous party of pleasure-seekers was camping out. A small boy, with his head and the greater part of his face tied up in a blue veil, was piling brush on a large bonfire, close to the door of the tent.

"To keep off the black flies?" called I, as I rode by.

"Yes, and skeeters, too," said he, lifting up roguish eyes, reddened by the smoke.

"Oh, dear," said I. "Do you like camping out?"

"Yes, indeed!" shouted he. "It's splendid! We killed six rattlesnakes yesterday!"

A Locomotive Resurrected.

Two years ago a serious washout occurred on the Santa Fe in New Mexico. Engine 196 of the Atchison, Topeka & Santa Fe was pulling a passenger train at the time, but owing to the track being in an impassable condition she was placed on a construction train in charge of engineer Charley Wing and fireman Ed Worle, and was sent to the scene of the washout. While crossing the Rio Grande river near Albuquerque the bridge gave way and the engine went into the river. All efforts to find her failed, as she had sunk in the sand, and when at last she was found no means could be found of raising her. The attempt to raise her was at last given up, and she was once more lost track of. Some months ago a Mexican contractor took the contract to find and raise her. Her position was located by the use of a powerful magnet, and after the lapse of a couple of months of hard labor engine 196 was again placed upon the rails. She was brought to the Santa Fe shops in this city and will be thoroughly overhauled, and will again go screaming and snorting across the country.

Horses Shod With Gold.

In the year 1855 a storekeeper named Donald Cameron, carrying on business in what was known as the Woolshed, Victoria, was elected first member of Parliament for the Ovens district, and he had the honor—unique in the history of the colony—of being driven in triumph from the Woolshed into Beechworth in a gig in tandem team, the leading horse of which was shod with gold. Just before the election an eccentric individual, known as Tinker Brown, who had made a lot of money on the diggings, suddenly purchased a circus, with tents, horses and wagons complete, and coming into Beechworth with his company, he offered to drive the newly-elected member and supply golden horseshoes for the occasion. The Woolshed bosses, who were greatly elated over the result of the election, warmly took up Brown's idea, and they resolved, in addition, to present their member with a diamond scarf pin. The horseshoes were made by a working jeweler named Toffield, and weighed nine ounces each. The team was driven from Woolshed to Beechworth and back as far as La Serena Hill. On removing the shoes of the leader, a piebald circus horse, they were found to have lost a total of one and three-quarter ounces. Before Tinker Brown died he willed them to a married daughter keeping a public house at Wagga Wagga. They were in existence until about four years ago, when the owner had them melted and turned into sovereigns. —Colonial Mail.

The Great Pension Building.

The interior of the great hall of the pension building will soon be finished. The immense stretch of wall has nearly all been plastered, and some idea can be formed of what the completed hall will look like. Whatever difference of opinion there may be as to the merits of the outside of the building, it will no doubt be generally admitted that this hall is a grand room. In point of size it is larger, with one exception, than any audience room in this country, and in point of capacity stands about fourth in the list of the large interiors of the world. The great Mormon tabernacle in Salt Lake city is said to have the largest capacity of any building in this country. It will seat about 15,000 people.

Gen. Meigs, the architect of the pension building, says that the hall in the pension

building and the galleries surrounding it have a seating capacity of 11,307 men. The hall itself is 316 feet long and 116 feet wide, while it has two tiers of galleries extending all around it which are twelve feet in width. A third gallery, which encircles the hall, has a width of five feet. Gen. Meigs says he has estimated that 30,000 people can find standing room in this great space. St. Peter's church, Rome, which is the largest structure in the world, will, in the same way, hold 54,000 people, while the Milan cathedral will accommodate 37,000; St. Paul's, Rome, 33,000, and St. Paul's, London, 25,000. Gen. Meigs says he has no doubt that the principal portion of the inauguration exercises will in the future be held in this hall, as well as public funerals and other exercises which attract large gatherings of the people. —Washington Star.

Consumption Cured.

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Sulphur and tar fumes are said to be a good means of getting rid of curculios.

Foxglove (*digitalis*) is a good remedy for thumps in pigs. One drop at a time is enough for a young pig once in three hours.

Color in animals amounts to little except in the observer's eye, though it is not unreasonable to suppose that temperament in animals as well as in persons may be expressed in color of skin and hair.

Bore a hole into a plum tree, fit a plug of hard wood into the hole neatly, and you will have a good thing to pound with a mallet when you want to knock off curculios; and if you have a large sheet spread below on the ground you can catch them as they fall.

There is a good deal of fuss made about the traveling salesman not being allowed special rates on railroads under the new law. Why should he have better rates than other people. When a farmer wants to go to a distant city, or to ride on a railroad anywhere, he has to pay regular fare. Let traveling men do likewise.

A rule in the South for preserving hams in warm weather is to place the hams in flour sacks that have been boiled in unslacked lime—a gallon of lime being sufficient for twenty-five sacks. Let the sacks dry, then turn them inside out, drop the hams into boiling water a few seconds, dry them in the sun and sack them at once.

Lord Cecil says that Clydesdale horses have, in a large majority of cases, a white stripe down their faces, and by some it is considered that harder and more Clydesdale character of bone is attained when there is much white about the legs; still as these are distinctly objected to in the foreign markets, horses are more appreciated when they have four good black legs and good feet below them.

A good tree wash is made of sulphur 4 pounds, 1 peck of lime slaked with hot water, old soap suds and tobacco boiled; while hot add one gallon gas tar and half gallon crude carbolic acid. For summer work leave out the gas tar and add one gallon of soft soap. For summer wash apply in May. It is said to be a good protection against borers, if used the summer, and against rabbits and mice if used in late fall. A Missouri farmer who uses this wash says a man can wash from 200 to 300 trees in a day with a 40-cent flat paint brush.

THE GREAT QUESTION.

Shall the carrying trade of the country be systemized upon the basis of reason and justice? That is the great question. It has not been so in the past. The enactment of a law on the subject has served to develop a great deal of friction. South, east, north, west, all are represented in complaints and petitions to the commission setting forth grievances and praying exemption from the provisions of the law. On the other hand, remonstrances are going up urging that the law be left to take its course. San Francisco sugar merchants want to be permitted to ship their goods into Eastern markets at prices that will compete with Eastern refiners, and the latter object on the ground of fair dealing. Some towns fear an increase in freight rates, others say they are content, that the law fairly applied will deal justly by them. One town says its trade will be ruined, another says it will at last get justice and will grow. Take a few sample cases in Pennsylvania: West Chester—"When the law went into effect merchants here were nearly to a man against it, but now they are nearly all in favor of the law." Reading—"Unless better rates are given for the far West, Chicago and St. Louis manufacturers will secure trade which hitherto has brought thousands of dollars to Reading and other Eastern cities." Coatesville—"Coatesville, which largely depends on its iron industries, is badly crippled." Chester—"Manufacturers and heavy shippers here do not like it." Harrisburg—"There is entire satisfaction with the rescinding of all special rates and abolition of rebates, and letting all manufacturers stand on the same footing as regards rates." Columbia—"We have felt no serious effects, and think it will work to our advantage." Kittanning—"Merchants appear to think that the law is to their advantage." Hollidaysburg—"The effect is demoralizing." Marietta—"Freights on coke have advanced 45 cents and on coal 50 cents per ton." Lancaster—"Manufacturers and shippers prefer to suspend judgment until the law's provisions are more fully understood." Pittsburgh—"The Pittsburgh & Lake Erie railroad is put to great disadvantage because it cannot compete with the Pennsylvania railroad. Our business men as a rule are willing to give the new law a fair test, and are bearing without grumbling the little annoyances it imposes."

Those are samples of opinion in interior towns. Traveling companies, theatrical organizations, and the like, are complaining of advanced rates. Some of them have canceled engagements. Here are a few items by way of illustration: "Dixey has canceled his California engagement for the summer. Under the old rates he could have gone there for about \$6,000; now it will cost him \$15,000, and consequently he will not go. He is trying to get an opening to play in New York all summer. Denman Thompson has canceled all his Western dates on account of the increased expenses of traveling. Pinnie Pixley will close her season at once, it is rumored, for the same reason. The Louis James tour will come to a close in Chicago because it is thought that it would be unprofitable to proceed further under the present arrangement."

The larger field is equally troubled. The Redwood Manufacturing Association, of San Francisco, say: "Our two incorporations employ 8,000 to 10,000 men and about \$30,000,000, our Eastern business has been entirely destroyed by the operation of the law," and the commission is asked—"Meanwhile will you allow the roads over which we have been operating to give old rates, and so revive our business, provided the rate is

open and available for all." Fruit interests of that city ask for similar relief. Some Boston interests complain. Judge Soule, attorney of the Boston & Albany Railroad company, said the route taken by shipments to Boston was not the same as that to New York, but was between sixty and 115 miles longer. Of course the rates to New York were fixed by the shortest line. There had grown up a large export trade in Boston, made possible by an arrangement with the roads which brought traffic at the same rates charged by the New York roads to that city. This trade rendered it possible to maintain a line of steamers to England, which line could not be maintained without this traffic. The local rate from the West to Boston was also 5 cents greater on grain and certain like classes of produce, than that on the same merchandise intended for export. If the local rates were charged upon the export traffic it would kill it. One man said the export packing trade of Boston amounting to \$15,000,000 annually, could not go on under the present arrangements. An agent of a line of trans-Atlantic steamers said the whole business of Boston was involved in this matter, both local and export. This question was of such importance that he had cabled his people in Liverpool, the day before leaving Boston, to delay the sailing of a steamship which was about to sail, until it should be settled, and he knew that other lines had done the same.

St. Louis millers complain against what is alleged to be unfair competition of their fellow craftsmen at Minneapolis. New York stove makers are pleased with the operation of the law. The *Age of Steel* says—"While it cannot be said that St. Louis has greater cause than competing cities to complain of the new rail rates imposed by the interstate commerce law, still it is indisputably true that some of her industries are very seriously disturbed, if not permanently injured, by the changes in freights. For instance, it is easy enough to see that the manufacture of axles, links and pins for Northwestern railroads cannot be a profitable business in St. Louis, handicapped, as it is, by the new tariffs for carriage. Thus, we have rates of nearly 21.68 cents from East St. Louis to Chicago, in car lots, against 8 cents for axles formerly, and 9.6 cents for links and pins. To St. Paul and Minneapolis the advance has been from irregular rates of 10 to 18 cents for this class of freight to the present tariff figure of 29½ cents."

The daily papers bring news of conflicting interests developed in towns, among individual persons and among corporations. Our quotations above are sufficient to show the general condition. It must not be inferred from these evidences of excitement, that the law is wrong or that there is any real danger in the situation. These developments are so many evidences of a condition of things which fully justifies the enactment of the law, and there ought not to be any doubt about the final triumph of the principles—reason and justice—upon which the law is founded. There is enough irritation, however, to keep a good many timid and hesitating people at fever heat all the time lest some great calamity befall the business interests of the people. Let everybody be patient—stand still and see the salvation of the Lord. We are really engaged in one of the most stupendous contests of modern times. Fifty-four years ago the first locomotive engine was put on the track in this country. Since that time our carrying business has grown to almost inconceivable proportions, the lines of traffic crossing and recrossing the country like the blood veins of an animal body. Great cities have been

built, important trade centers have been developed, and railroads have become so much a part of present civilization that they are indispensable. People in newly-settled portions of the country are not willing to wait for railroads to be built in the ordinary course of business, but they go into debt to help bring roads before their time. And railroad companies are precisely like other companies made of mortal men, they want to make money by their work; that is what they organize for. Rapid settlement of the West stimulated railroad building; on the other hand, railroad building stimulated the rapid settlement of the West. In other words, settlement and railroad building have gone together in developing the country. In this great work many rival interests have appeared and some vicious practices have grown into custom. These are being brought to light by the operation of the law. It is found that railroad companies were carrying freight long distances at rates far below actual cost of transportation, and in some instances actually destroying legitimate and over profitable industries located at intermediate points along the way. Flour made at Minneapolis, Minn., has been carried into New York city at rates lower than those charged the millers of Rochester, N. Y. Fruit is carried from California to Chicago and farther east at rates lower than farmers of Kansas can obtain. In thousands of instances freight is carried through and past towns at rates below those charged the people there on like property to the same points. Along with these things, a few places in the country have grown to great size and trade flows to them and through them like blood to and through the heart. Manufacturing interests have grown wonderfully, but they are not scattered about over the land like the railroads are, and it is largely because the roads have been carrying freight over long distances for almost nothing. Business of smaller places has not grown like that of the larger places and because of the great differences in freight charges for like service. The law is exposing all this, and that is the reason of all the irritation. Let the people be patient. Congress has not taken the management of railroads out of the hands of railroad companies; it has simply enacted that the carrying trade of the country must be done under a general system based upon two principles, reasonable compensation to the carriers and justice to all the people.

There are many things to be considered in the discussion of this subject, and there are many things we would like to say at this time, but people do not like unreasonably long editorials, and in respect to that dislike, we will add little more now. We do not want the people to become discouraged with the law because there is so much talk against it. The principle of the law is right; it was demanded especially by farmers and small traders, and we want to see the business of the country adjusted to its requirements. When the Boston men were talking about the prospective ruin to that city, a gentleman—a Boston business man, too—asked "if the roads could haul freight from Chicago to Boston for export for 25 cents, why could they not do it for consumption?" That is the idea exactly. If lumber and fruit could be hauled from California last year and other years at very low rates, why can it not be done now? Who has been paying the Californian's freight for him? Kansas people always paid high and remunerative rates. If Minneapolis flour could be hauled to the Eastern cities for a song, why can it not be done now? Kansas millers always paid well

for the flour they shipped. If through freight did not pay expenses, there is nothing lost in abandoning it. It costs less to haul an empty train than it does to haul a train that is loaded. Why should people along a railway line be compelled to pay for shipments started far beyond them when nobody is benefited except wealthy men at the end of the line who are able to take care of themselves? It is not fair, it is wholly unjust, and it must be remedied. Let business be treated fairly; let communities, towns and cities enjoy equal facilities for transportation under like circumstances, and let every shipper pay his proper proportion of freight charges. Abolish favoritism; do away with unjust discriminations, and the business of the people will soon adjust itself to the new and better condition of things.

Kansas Not in Quarantine.

The Governor of Colorado recently issued a quarantine proclamation, and a rumor was set afloat that it included Kansas, but the rumor was not true. Kansas is not included. Here are the material words of the proclamation: "In accordance with the resolutions of the Colorado State Veterinary Sanitary Board, I, Alva Adams, Governor of the State of Colorado, by virtue of the authority in me vested by law, do hereby forbid the importation into this State of any sheep, except rams shipped by rail from points east of the Mississippi river, unless accompanied by certificate of health given by the Colorado State Veterinary Board; also by this proclamation I forbid the shipment and importation into this State of all cattle from the States of Illinois, Missouri, Arkansas, Kentucky, Pennsylvania, West Virginia, Virginia, Maryland, Delaware, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, Vermont, District of Columbia, and the Dominion of Canada, except under such rules, restrictions and regulations as may be ordered by the Colorado State Veterinary Sanitary Board. All other proclamations relating to cattle and sheep are hereby withdrawn and annulled."

Condition of Stock in the United States.

The last report from the Department of Agriculture at Washington gave the condition of stock as generally good.

Horses.—The reports as to the healthfulness of farm horses during the past twelve months are almost uniformly favorable, the localities in which any serious disease has been at all prevalent being very few and of limited extent. In no case is the number of horses dying from all causes reported higher than 1 per cent. Diseases which have prevailed more or less in different localities are noted below.

Cattle.—The returns show the cattle of the New England States to be in generally good condition, some reports making them in better health and flesh than usual. The crop of hay was sufficiently large, so that there has been very little stinting of stock, and animals are in fairly good flesh without having consumed an unusual amount of grain. The latter part of the winter was severe in the Atlantic States as far south as the Carolinas, and stock of all kinds suffered more or less, reducing condition somewhat in many sections. The average by States, however, varies but little from that of last year. On account of lack of shelter and care during the winter much stock enters the spring in poor flesh and bad condition in too many of the Southern States. The idea that in this portion of the country cattle can be run on the range during the year round without need of shelter or provision of food is a

fallacious one, and the result of its practice is that the percentage of loss is often greater in these States than in any other section of the country, while by the natural order of things it should be the least. The farmers there whose live stock investments pay them are those who attend to the necessities of the cattle during the inclement season. The States north and westward from the Ohio to the Missouri rivers show an average condition as regards flesh and freedom from disease. Shelter and food are provided as required, and losses are reduced to a minimum. Condition is high in California and Oregon, both being slightly above the average. Cattle on the ranges suffered severely from the inclemency of the winter, and the results of the season will more strongly than ever impress upon herd owners the necessity, even from a financial point of view, of providing sufficient shelter against the dreaded blizzards, and of supplying themselves with forage for more winter feeding.

Sheep.—The reports as to the condition of sheep on the first of April are in general very satisfactory. In the New England States the condition is fully up to the average, and in New York, New Jersey, and Pennsylvania it is somewhat above. It is average or slightly above in all the seaboard or Southern States from Maryland to Florida, with the exception of North Carolina, where it falls somewhat below. In Alabama it is nearly if not quite an average and is above average in the other Gulf States and in all the remaining States east of the Mississippi, except Wisconsin. In Wisconsin and Minnesota it is about average; in Iowa, Missouri, and Arkansas, it is above, as also in Kansas, Colorado, and Dakota. In Nebraska it is above average, and in the other States and Territories of the West it is in general nearly or quite up to that level, except in Montana and Idaho. During the past year sheep have, on the whole, been comparatively free from any serious disease. The diseases of widest prevalence are scab, foot-rot, and head disease, especially the two former; but it is only in a few localities that they have prevailed to a serious extent.

Swine.—The condition of swine in different parts of the country varies greatly. In New England and the northern tier of States from New York to Minnesota, with the single exception of Illinois, condition as regards healthfulness is equal to or above an average. South of this territory the opposite prevails, present status being poor and numbers depleted. In this section disease, a severe winter, and poor care have reduced condition very low. In many counties, owing to ravages of disease during the past few years, farmers pay but little attention to this class of stock, and the total number of swine in the country on the 1st of January of the present year was a million and a half smaller than at the same date in 1886. Present returns indicate a scarcity in many quarters of young pigs, and as prices are advancing it is probable that more attention will be paid to hogs during the coming year. Increased care and more liberal feeding will do much to lessen the present ravages of disease.

A correspondent of *Rural World* suggests that if farmers would have a small boiler made of sheet iron and set over a stone arch, in which to boil a little linseed oil or gas tar, then as soon as the tire gets loose set the rim of the wheel in a tank and slowly revolve it in the oil and tar, allowing the pores of the wood to fill up with the substance there would be but little need of taking the wagon from home to get the tires set, the wheels would retain their shape, and the durability of the wood be increased.

Inquiries Answered.

RAILROADS.—Please inform me through your paper if the Chicago & Alton railroad company is building a road through Greenwood and Cowley counties.

—If it is, the work is not being done under that name. It is difficult to ascertain the bottom facts about new railroads until after they are built.

LICE ON CATTLE.—My cattle have been very lousy the past two winters. Will they remain on cattle over summer? Please mention in your paper a good remedy to get rid of the lice.

—Carbolic acid one part, warm water one parts; bathe the skin. Another good remedy is: Lard and equal parts of kerosene oil and sulphur, made into a salve and well rubbed into the skin. Lice will remain on cattle all summer, though their presence is not as noticeable when the stock is on good green feed. Tobacco decoction will destroy lice.

PARIS GREEN—SPRAYING.—You gave an account of using Paris green to kill the codling moth. You might do several a favor by publishing the amount that was used, and the machine to use it with, for these moths are a great pest in this part of the State.

—London purple is even better than Paris green, because it is easier mixed and is quite as effective. A pound of the poison to fifty gallons of water is sufficient. A large teaspoonful is enough for an ordinary bucket or pailful of water. It is better to wet the poison first, make into a paste, before putting it into the vessel for use. It mixes better that way. It must be stirred thoroughly and frequently while being used. The mixture is to be sprayed on the trees by the best means at hand, a force-pump, a syringe, a brush, a wisp—anything that will get the poison scattered over the tree and among the branches, so that part of it falls upon the young fruit. The proper time for application is when the young fruit is well set and large enough to be seen distinctly—large as hazelnuts or cherries. A bucketful of the mixture is enough for one medium-sized tree if well applied. If applied by hand, it is better to get up in the tree by means of a ladder, so that there will be little waste. Aim to get the fruit washed on the upper side where the blossom end is, ready to receive the liquid. It is better to repeat the spraying in about a week.

Winter Wheat—Seeding and Fall Growth.

The latest report of the Agricultural Department says the April returns show that the condition of the soil at the time of seeding wheat was somewhat unfavorable in the States of the Atlantic and Gulf coasts, owing to drought during the summer and late autumn, most severe in portions of Pennsylvania, in Maryland, Virginia, and in parts of Texas. The continued dry weather made plowing difficult, seeding late, and in localities where it was unbroken when winter set in, germination was slow and the fall growth small. New York was the only exception to this rule, the seed bed in that State being mainly in favorable condition and the autumn growth sufficient to send the plant into the winter strong and vigorous.

In Tennessee and Kentucky the soil in the main was favorable, but few counties reporting late sowing owing to drought. Germination was good, the plant covering the ground well, and the fall growth was vigorous and promising. Ohio, Michigan, Indiana, and Illinois report an unusually favorable seeding time, the fields being well pulverized and the seed lying in the ground but a short time. The autumn weather was favorable, and the plant went into its winter quarters green and in good condition. In a few localities seeding was delayed by drought, and in others by an excess of moisture; in these the condition of the plant was less promising when winter began.

The weather was generally favorable, both for seeding and autumn growth in Missouri; a few counties in the western portion of the State reporting delay on account of dry weather. The returns from Kansas are more unfavorable, a large part of the area being affected by

a prolonged drought at the time of planting, rendering it hard and unfit for cultivation. Stubble and corn lands withstood the unfavorable conditions best, but over the greater part of the acreage seeding was late, growth small, and conditions not good when winter came.

On the Pacific slope the early seeding time was dry, but rains came later and the whole breadth was planted in fair condition, though somewhat after the usual date.

St. Louis Wool Market.

Receipts of wool from Texas and other Southern sections are increasing and market prices higher on bright medium grades. Some few lots from Kansas received and show great improvement in the herds over last season. The heavy shortage in medium wools is now so keenly felt that light fine, heavy fine and buck fleeces are coming in demand and prices advanced in all leading markets. Coarse carpet wools are stronger in value than last year and sell quickly and demand for them is very heavy.

Our sales of Kansas wools since last report were at the following prices:

KANSAS.	
Choice $\frac{3}{4}$ and $\frac{1}{2}$ -blood.....	25a27
Medium.....	23a25
Low medium.....	20a22
Light fine.....	21a22
Heavy fine.....	19a21
Carpet.....	14a17
Common.....	16a19
Pulled.....	16a19
Bucks and heavy Merino.....	15a17
Burry wools 2 to 5 cents per lb. less.	

HAGEY & WILHELM.

Book Notices.

TURKEY-RAISING.—A No. 1 little book. Fanny Field is the author, and that is enough to recommend it. Published by R. B. Mitchell, 69 Dearborn street, Chicago. Mr. Mitchell is editor of the *Poultry Raiser*, and a picture of his face is the frontispiece of the Turkey book. That is our only objection to the book. Why did he not put Fanny's picture there, instead of his?

HEAD WATERS OF THE MISSISSIPPI.—"Captain Glazier and His Lake" is the title of a 58-page pamphlet, in which Captain George H. Glazier undertakes to show that Lake Itasca is not the source of the Mississippi river, as has been generally believed, but that another lake is, and that other lake is the one the Captain writes about in his book. Published by Ivison, Blakeman & Co., Chicago.

Yellowstone Park is the subject of one of the prominent articles in the May *Harper's*. Mrs. Alice Wellington Rollins writes a lively conversational sketch of the summer trip of a party to the Yellowstone. Their amusing experiences and racy dialogue are interspersed with accurate descriptions of the wonders which they witness, forming a very brilliant treatment of a magnificent theme. An abundance of admirable engravings from special drawings by four artists illustrate the narrative and the scenery with splendid effect.

THROUGH TRANSPORTATION.—A little, well-printed and well-bound book on a new subject is just out, entitled "Frauds of the Through Bill of Lading System Exposed." Mr. Henry C. Frink, who has had many years of experience and observation, is the author. His object and idea are expressed in the preface, in which he says: "During the last ten years the steamship lines running between this port (New York) and British and continental ports have been defrauded of hundreds of thousands of dollars by some of the inland transportation lines terminating here that have been engaged in the export freight business. * * * The shippers, and especially those who send their goods to commission merchants abroad, have also been wronged, for the inland transportation lines solicit their patronage under the implied agreement that they will get the lowest ocean rates, and if any reduction is obtained the shipper is clearly entitled to it." The methods by which shippers are thus "defrauded" are given by statements of actual facts under fictitious names. Address Henry C. Frink, New York.

Horticulture.

KANSAS HORTICULTURAL MANUAL

From Advance Sheets of the State Horticultural Society's Report for 1886.

CHERRY CULTURE.

CHAPTER I.

Site.—For this, as well as for all classes of soft fruits, should be as near the dwelling as practicable, for convenience in gathering the fruit, and general care of the orchard.

Elevation.—High lands are preferable, as the fruit buds are less liable to be injured by spring frosts, and the tree maintains a normal condition better through varying weather in winter, and better facilities are afforded for circulation of the currents of air during extreme rainfalls and sudden changes in temperature.

Slope.—An eastern or northern slope is preferable, as trees do not suffer so much from drouths or heat of sun on such locations. The slope should be sufficiently inclined to readily pass off any sudden, heavy fall of water, as a retention of a surplus amount in the land will weaken the vigor of trees, and where continued endangers their lives.

Soil.—A deep loam and sandy soil are to be preferred; but other soils can be made suitable by deep tilling and manuring, and for naturally arid land a heavy mulching.

Drainage.—When planted on flat lands, some artificially-constructed drains must be provided; but on slopes water is seldom retained in amount that would be deleterious to trees. The value of ample drainage is forcibly impressed on the grower when heavy and continuous rains flow the land just at the ripening period, which is invariably followed with cracked and often bursting of the fruit, thereby rendering almost the entire crop unmarkatable, and a serious loss. No such occurrence would follow on well-drained grounds.

Wind-breaks.—In open prairie lands wind-breaks are an advantage, when confined to the south side only. These should be constructed with two rows eight feet apart, and the trees set at same distances, alternating in the row.

CHAPTER II.

Preparation of the Land.—Deep plowing and pulverizing of the surface, and stirring of the subsoil, are as much needed with the cherry as any of the orchard fruits. The depth can be obtained by a repeated following in the same furrow, until the desired condition is reached. Sterile lands must be well enriched with barnyard manure or wood ashes, or any well-rotted vegetable matter, before planted.

Selecting of Trees.—These should never be over two years old; strong, vigorous growers, and well-rooted. A second-class tree is never cheap, and their use is a very questionable economy; better plant fewer trees of the first class, than use them on account of the difference in the cost. As to the character of stock on which the kind has been worked: Of these there are three kinds, viz., Mahaleb, Mazzard and common Morello. To these the objections have been made that the Mahaleb is short-lived, Mazzard not at all times hardy, and the Morello sprouting profusely from the root. The tendency of the remarks and discussions at the meetings of the Society have been towards the Morello as a preferable stock, claiming early and profuse fruiting and hardiness, over the other classes. To the use of this stock the main objection comes from nurserymen; and in addition to the above-stated objection, that it is a difficult stock to work. While there is no question as to the hardiness

and abundant fruitage of those trees worked on this stock, one of the most valuable orchards in the State was table-grafted on the Mazzard stock. The continuous annual yield, and longevity and vigor of the trees, have been remarkable. But much of these conditions undoubtedly can be clearly traced, and is due, to exceptionally kind treatment given annually to the orchard, and more credit is due to this treatment than to the class of stock used.

Laying off the Ground.—The usual mode of laying off is, to measure across the ends, and set stakes for each row; then measure or sight across the inside, set a peg where each tree is to stand, and proceed to dig the holes. These holes, experience in Kansas has demonstrated, need not be any larger around than is necessary to receive the roots spread out in their natural shape, and deep enough to get the tree down about as deep as it was in the nursery. In light, sandy soil it can be put some deeper, but in clay or heavy soil it should not be. Several of our members have for the past ten years been planting their orchards in the following manner, and we consider it as having more advantages than any yet recommended: First, procure a half dozen or more stakes, four or five feet high; set these stakes in line where you want the south row of trees; then, with a steady team, plow and mark out a straight furrow in range with the stakes; have a man follow after and measure the distance for the next row to the north, and set the stakes, then mark out as for the first row; and so on till the north side of the plat is reached. Now set the stakes north and south one foot east of where the east row of trees is wanted. Begin at the south end, and mark out a furrow in line with the stakes, throwing the furrow to the east; then turn back, letting the near horse walk in the furrow; run another furrow parallel with the first one, and about twenty inches west of it; make one more round, and throw out the center, thereby making a dead furrow where the first row of trees is to stand. Repeat this operation until the west side of the plat is reached. If a good, stout team is used, we will have a dead furrow running north and south where the rows of trees are to stand, twenty to twenty-four inches wide and eight to ten inches deep, which is about the right depth to plant trees. This completes the laying off, and the preparation of the ground for the reception of the trees. Nothing further need be done, except to go along with a shovel and throw out any loose dirt that may have fallen back where the east and west rows cross, or where the trees are to stand.

Distance Apart.—The cherry tree is a close grower, forming either an upright or low, round head, according to varieties. In either case it requires little room. But for convenience in cultivation and other work in the orchard, the rows should be twenty feet apart, and trees fifteen feet in the row.

Planting.—First, time for planting: Many trees fail because planted too late in the spring, and many more fail because planted in the fall. The safest time is in the spring, and it should be done as soon as the winter's frost has left the ground, and without fail before the buds become swollen. Let one man take a tree, set it in the dead furrow where the east and west furrows cross, and spread out the roots to their natural shape; another man to throw on a few shovelfuls of well-pulverized surface soil, seeing that this is well packed around the roots; then let the man holding the tree tramp the soil well around it while the other man fills up, till the earth is about level with the sur-

face of the ground. The tree when planted should lean somewhat to the southwest. It is best to plant the trees of each variety together.

Cultivation.—The first summer after planting is a critical time for the trees, and they should receive great care. The ground should be kept clean and well cultivated the entire season. The first thing to do in cultivating an orchard should be to provide short double and single-trees. The double-tree should not be over twenty-five to thirty inches long, and the single-trees not over sixteen or eighteen inches. Make them as short as the team can be made to work with, and when cultivating always use them. With a little care, there is no need of barking the trees. If the trees are planted in dead furrows, as above described, soon after they are planted close up the dead furrow with a plow. This completes the first cultivating. In eight or ten days, or when the weeds begin to start, plow the ground again, throwing the furrow to the trees, and running the plow not more than two or three inches deep, going about four rounds to each row of trees. Repeat this three or four times during the season, or as often as the weeds start, running the plow a little deeper each time. This gradually deepens the earth around the trees as the season advances, and by fall we have a deep, mellow bed about eight feet wide, and twelve to sixteen inches deep. All weeds that are not covered by the plow should be cut with a hoe. On the ground between the rows of trees we would plant crops that require cultivation, such as corn, potatoes, beans, etc. Corn we regard as the best crop, as it receives cultivation at the time when the trees need it, and affords to some extent protection to the trees from the wind. The second year, commence cultivation by throwing the furrow from the trees, and the next time to them, and so on, keeping the ground clean and well stirred till about the middle of July, when cultivation should cease for the season. Stirring the ground later than this stimulates fall growth, the wood of which does not have time to ripen up well, and is liable to winter-kill. The third, fourth and fifth years, cultivate the same as the second year, and by this time, if the trees have been well cared for, they will have become well established in fruiting. After this, if cultivation is not continued, the land should have each year a liberal dressing of stable manure and litter. Cherry trees must be kept in a vigorous, growing condition each year, and if such varieties as adapt themselves to our climate are used there will be but few failures until their natural time of life is run.

Pruning.—It is generally conceded by all progressive orchardists, that pruning is a necessity, the only difference being as to the extent. The main points to be gained in this work are—first, a low and uniformly-shaped head; second, to facilitate the penetration of light and air to the inner portion of the head; third, to encourage and direct the annual growth so as to form a shade sufficient to break the force of the sun's intense heat upon the branches and trunk of the tree; fourth, to remove all chafing, straggling and succulent growth. It should be done mainly while the tree is young, and in the spring before the buds break in leaves. Succulent growth should be removed as soon as it appears.

CHAPTER III.

Necessary Tools.—Ladders.—Of these the only convenient form is the common adjusting ladder, which is easily manufactured by using for the sides two-inch pieces of common lumber, six inches wide and from six to ten feet long, as occasion may require. Into these are grooved steps of same width at easy

stepping distances, fastened with nails or screws, each supported by cleats on the under side. The top should be constructed with a platform step eight inches wide, on which to rest the picking boxes and for the picker to stand upon whenever necessary. This style is found at almost any store dealing in hardware or agricultural implements, and is generally used while the trees are young and low-headed. As the trees become large and tall, the staging platform is the best. This is constructed on the plan adopted by plasterers for the finishing of inside work in buildings, viz.: two wooden horses are made of the required height for convenience of the pickers, and placed at safe distances apart along the sides or under the branches of the trees, and on their tops is constructed a platform where one or more pickers may stand and do the work. These have the advantage of accommodating several persons at a time, are movable, and easily shifted from place to place.

Picking Crates.—These are made of light but strong material, and of necessary size to receive four common berry boxes side by side. This crate is suspended to the picker, adjusted to a convenient position in relation to the work and in front of him, thus relieving both of his hands to be used in picking.

Boxes and Crates.—The common style which is used for berries is well adapted to use in gathering a cherry crop.

In an orchard of any extent a small shanty or packing room should be provided. It will also be found convenient for storing the fruit against exposure, as well as shelter for the pickers from a sudden rainfall. In this may be constructed a facing and packing table.

CHAPTER IV.

Time to Gather.—If for shipping, the best time will be when wholly covered with a light red color—approaching scarlet; if for a near market, then a dark red color.

Picking.—Having everything ready, the picking force should be divided into two classes. The first proceeds to gather all the fruit within easy picking distance while standing on the ground, and should keep in advance of the second class, which works from ladders or staging, and cleans up the tree. Cherries must be picked by the stem, and not by taking hold of the fruit, and care must be taken not to even start the stem from the fruit, for if that occurs the juices will flow out, and all such fruit will quickly spoil. None but sound and ripe specimens should be placed in the boxes, and the top layer in every box should be an honest index of the whole. With the "picking crate" swung to the picker, he has every facility for doing his work well, and quickly detecting any damaged or inferior fruit before it is picked. As soon as the boxes in the picking crate are filled they are taken out and placed in a shipping crate, and others put in their place, and the crate when full carried to the facing table.

Facing and Packing.—The first consists in turning the stems of all fruit in the top layer down, which will give the appearance of a solid surface to the box. All boxes should be filled a little above their edges, to avoid the semblance of stinted measure, and provide for the inevitable settling sure to follow the racket of transportation. As fast as faced, pack them in the shipping crate, the best being the 24-box crate, close up securely, brand with name of variety, and name of grower and consignee, and send to destination at once. The fruit is never so attractive as at the time when taken from the tree, and the sooner it is placed in the market the more readily it will sell. The practice of facing, above described, is receiving

severe criticism in some prominent circles, as offering too great temptation to dishonest conduct.

Storage, for the Purpose of Holding.—The product can be safely held in a cold storage for several days, but must be quickly used when taken out; and especially is this an advantage to the grower in seasons when the yield is abundant, and the market overstocked.

List of Varieties Recommended for Planting in Kansas.—EARLY: Early Richmond, May Duke. LATE: Montmorency, English Morello, common Morello, Ostheim, Belle Magnifique, Gov Wood, Jate Duke.

The Poultry Yard.

Hatching Healthy Chicks.

Kansas Farmer:

To succeed in hatching a nice lot of healthy chicks, free from the many diseases which are so common among both the old and young chickens during the spring and summer, requires more care and attention than most breeders have any idea of at first, and the beginner will have to learn by experience that there are a great many conditions which bear on this subject of the successful hatching of strong healthy chicks.

In the first place the breeding stock must be selected carefully, as they determine the quality of the offspring produced, and the beginner should be very careful to use nothing but the choicest specimens that can be obtained for his breeding pen. The selection of a large-sized healthy cock is quite important, as he has more influence on the quality of the chicks raised than any single hen that is bred to him, as the chicks are all from the same cock while the hens only have a small brood of their own.

The bad effects of in-and-in breeding quickly make themselves apparent, and the standard of utility in the flock will quickly degenerate if this injudicious practice is carried on to any considerable extent. The male breeders should be changed every year and a new lot of the same breed but of a different strain put in their place.

When the breeding stock is too closely related to each other the eggs from the hens are really not fit to use for breeding purposes, for if they hatch at all, the chicks are quite sure to be weakly and perhaps deformed in some way and will never make first-class breeders. It is very often the case that the eggs from such breeding stock never hatch at all, and altogether the result is very unsatisfactory, and for this reason should be guarded against as much as possible.

Healthy chicks can only be hatched when the parent stock is perfectly healthy, with no signs of disease, and have first-class exercise provided for them in some way by the breeder. This exercise is especially important for the laying hens during the winter and early spring when they are confined to their coops most of the time and cannot get out and scratch for themselves as they can later in the season.

GEO. F. MARSTON.

THE PRIZE ON ESSAYS.

We are in receipt of the following card from Messrs. Hughes & Tatman in relation to the prize for best essay on "Care of Young Chicks":

NORTH TOPEKA, KAS., April 21, 1887.

EDITOR KANSAS FARMER:—We think Mrs. Plummer is entitled to the prize. Truly, HUGHES & TATMAN.

Hay is somewhat objectionable for nests, as the seeds sometimes bait the mice, and again, the hens are likely to scratch for hayseed, and thus break the eggs. Straw, well broken and made

soft, is a much better material. Do not cut the straw in a machine, as that fills the nest with sharp points which prick the hen and annoy the young chicks.

While the hens may not protect an orchard from insects, it has been demonstrated that when poultry are confined around the trees they will prove very serviceable in preventing the attack of insects.



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References:—P. B. Weare Commission Co. and Hide & Leather National Bank, Chicago.
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JAMES J. H. GREGORY, Marblehead, Mass.

The Busy Bee.

Bee Notes.

Bee-keepers agree in saying a laying worker bee can not be distinguished from other worker bees, unless detected in the act of depositing eggs.

Hives should be set in rotation in hexagonal form, six to eight feet apart each way. A grape vine trained to a trellis on the south side of each makes the shade required, besides giving a crop of good fruit.

A California bee-keeper who last year had 40,000 pounds of honey to market, reports that he sold it all at the extraordinary low price of 3½ to 3⅞ cents per pound. Bee-keeping seems badly demoralized in California.

Bees coming home loaded in cool days are apt to drop on the ground in great numbers and become chilled so as to be unable to take wing again, and are lost. Hence the advantage of having the entrance just at the place of dropping.

In answer to the question, "Does alsike clover make dark-colored honey?" several correspondents of the *Bee Journal* says it does not; others say it makes a honey slightly darker than that from white clover, but not as dark as buckwheat honey.

Do not begin bee-keeping unless with the determination to give it that thought and care which will make it a success. Nothing can be more unprofitable and demoralizing than a neglected apiary. Begin, then, with a single hive, and experienced bee-keepers are agreed that this is the proper month in which to begin.

Just how far bees will fly from the apiary and make a success of gathering honey is yet a little in the dark. Some writers claim the Italian bees will go five or six miles or even further. But we think two or three miles takes in the largest of the crop. The Italians have greater average endurance on the wing than the black bees.

The way to begin bee-keeping is to begin small. If one procures a single colony, in a modern, movable comb hive, and by the aid of one of the standard works cares for that colony and its increase during the season, he will have a knowledge of bee-keeping that will enable him to manage many hives, and which will enable him, if he should so elect, to keep bees for profit.

The great drawback in dividing is that we do not get the bees evenly divided as to age. The old bees will leave the new colony just formed, and go back to the old stand, and in order to get enough bees in the new colony we must take frames from the old stand, with adhering bees, and shake them into the new colony, and those bees that remain are all young bees. Hence we get all the old bees at the old stand, and all the young bees at the new stand, and our new colony will not commence work for several days, on account of the old bees or working force being all at the old stand. This is not the case in swarming, as all classes and all ages comes out with the swarm. This is why we prefer first swarms, and have written so much on the care of them. Second swarms do not come with so much regularity as first swarms, and we think dividing is preferable to second swarms.

Esmeralda county, Nev., has a new geyser hot enough to cook potatoes.

English Spavin Liniment removes all hard, soft, or calloused lumps and blemishes from horses, blood spavin, curbs, splints, swellings, stifles, sprains, sore and swollen throat, coughs etc. Save \$50 by use of one bottle. Every bottle warranted by Swift & Holliday, druggists, Topeka, Kas.

THE MARKETS.

By Telegraph, April 25, 1887.

LIVE STOCK MARKETS.

New York.

BEEVES—Receipts 80 carloads. Market active and firm. Poor to best steers 4 30a5 75, bulls 4 50a4 75.

SHEEP—Receipts 10,900. Market dull. Unshorn sheep 5 00a5 75, clipped 4 00a4 75.

HOGS—Receipts 11,200. Market steady.

St. Louis.

CATTLE—Receipts 500, shipments 300. Market strong. Choice heavy native steers 4 80a 5 10, fair to good shipping steers 4 00a4 75, fair to choice butchers steers 3 60a4 40, fair to good feeders 3 20a4 00, fair to good stockers 2 20a3 15, common grass to choice corn-fed Texans 2 00a 4 25.

HOGS—Receipts 3,600, shipments 2,800. Market active and steady. Choice heavy and butchers selections 5 50a5 65, fair to good packing 5 30a5 50, medium to prime Yorkers 5 15a 5 30, common to good pigs 4 50a5 00.

SHEEP—Receipts 1,650. Market firm. Fair to fancy woolled 3 50a4 70, medium to choice clipped 2 80a3 75.

Chicago.

The Drovers' Journal reports:

CATTLE—Receipts 9,000, shipments 3,600. Market heavy, steady, light and strong. Shipping steers, 950 to 1,500 lbs., 4 00a5 25; stockers and feeders 3 00a4 20; cows, bulls and mixed 2 25a4 00, bulk at 2 80a3 15; through Texans 3 25 a4 40.

HOGS—Receipts 16,000, shipments 4,000. Market strong. Rough and mixed 5 05a5 40, packing and shipping 5 40a5 65, light weights 4 75a 5 40.

SHEEP—Receipts 3,000, shipments 1,000. Market strong, 10a15c higher. Natives 3 50a4 90, Western 4 00a4 70, shorn sheep 3 00a3 80, lambs 4 40a5 50.

Kansas City.

CATTLE—Receipts since Saturday 1,169. Market active and firm for shipping steers at Saturday's prices. Choice cows were 5a10c higher. Butchers' steers were steady and feeding steers quiet. Sales ranged 3 40 for stockers to 4 75 for shipping steers.

HOGS—Receipts since Saturday 5,109. Market was firm with values 5c higher. Extreme range of sales 4 65a5 50, bulk at 5 25a5 40.

SHEEP—Receipts since Saturday 73. Market steady. Sales: 159 clipped natives av. 72 lbs. at 2 92½, 108 do. av. 85 lbs. at 3 40, 25 do. av. 64 lbs. at 2 35, 100 stock 1 25 each, 63 stock 75c each.

PRODUCE MARKETS.

New York.

WHEAT—Higher. No. 2 red, 94¼c elevator, 95¼c delivered.

CORN—Higher; 49¼a49¾c elevator, 49¾a51c delivered.

St. Louis.

WHEAT—Cash was strong. No. 2 red, cash, 80a80¼c; May, 80¼a80¾c.

CORN—Firm and ¼a¼c higher. Cash, 35¼c; May, 35¼c.

OATS—Very dull. Cash, 27¼a28c.

RYE—No sales; 51c bid.

Chicago.

The wheat market was active and strong today. Cash quotations were as follows:

WHEAT—No. 2 spring, 83¼a84¼c; No. 3 spring, 75a77¼c; No. 2 red, 83¼c.

CORN—No. 2, 38¾c.

OATS—No. 2, 27¼c.

RYE—No. 2, 57c.

BARLEY—No. 2, 54c.

Kansas City.

WHEAT—Receipts at regular elevators since last report 2,350 bus., withdrawals 1,100 bus., leaving stock in store as reported to the Board of Trade to-day 194,507 bus. The market to-day on 'change was quiet, with no sales on the call of any of the different grades, either for cash or future delivery. No. 2 red winter, cash and April, no bids, 70c asked; May, 70c bid, 71c asked.

CORN—Receipts at regular elevators since last report 1,169 bus., and withdrawals 1,755 bus., leaving stock in store as reported to the Board of Trade to-day 170,440 bus. There was about a steady market on 'change to-day. No. 2 cash sold at 32¼a32¾c against 32¾c Saturday.

OATS—No. 2 cash, 29¼c bid, no offerings. RYE—No bids nor offerings.

HAY—Receipts 7 cars. Market firm. Fancy small baled, 9 00; large baled, 8 00; wire-bound 50c less.

OIL—Per 100 lbs. sacked, 1 25; 2100 per ton, free on board cars; car lots, 20 00 per ton.

SEEDS—We quote: Flaxseed, 90c per bushel on a basis of pure; choice sowing, 1 25 per bushel, sacks extra. Castor beans, 1 25 for prime; for seed, 2 00.

BUTTER—Receipts light and market fairly active. We quote: Creamery, fancy, 28c; good, 25c; fine dairy in single package lots, 23c; store-packed do., 15a16c for choice, 6a8c for common.

CHEESE—We quote: Full cream 13¼a14c,

part skim flats 7a8c, Young America 15c, Kansas, choice, 11c.

EGGS—Receipts large and market active at 10¼c per dozen for fresh.

POTATOES—Irish, natives 35a40c per bushel, Nebraska and Iowa 50c, choice Michigan 75c. Sweet potatoes, yellow 1 25, red 1 75.

PROVISIONS—Following quotations are for round lots. Job lots usually ¼c higher. Sugar-cured meats (canned or plain): Hams 11¼c, breakfast bacon 10c, dried beef 12c. Dry salt meats: clear rib sides 7 75, long clear sides 7 65, shoulders 5 55, short clear sides 8 00. Smoked meats: clear rib sides 8 25, long clear sides 8 15, shoulders 6 70, short clear sides 8 50. Barrel meats: mess pork 17 50. Choice tierce lard 6 75.

Farm Loans.

Loans on farms in eastern Kansas, at moderate rate of interest, and no commission. Where title is perfect and security satisfactory no person has ever had to wait a day for money. Special low rates on large loans. Purchase money mortgages bought.

T. E. BOWMAN & Co.,
Bank of Topeka Building, (upper floor),
Topeka, Kas.



W. H. REED & SON,

Wholesale and Retail Dealers in

FURNITURE

156 KANSAS AVE.,
(Between Fifth and Sixth.)

TOPEKA, :: KANSAS.

One of the Largest and Best-Selected Stocks in the State, and Prices Guaranteed to be as Low as the Lowest.

We make a specialty of all orders for shipment. Goods packed and shipped without extra charge at lowest freight rates.

WOOL HAGEY & WILHELM, Commission Merchants,

220 N. Commercial St., ST. LOUIS, MO.

REFERENCES:—Boatmen's Bank, St. Louis; Dunn's Mercantile Reporter, St. Louis; KANSAS FARMER Co., Topeka, Kas.; First National Bank, Beloit, Kas.

Kansas City Stock Yards,

KANSAS CITY, MISSOURI,

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

Higher Prices are Realized

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

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

Kansas City Stock Yards Company Horse and Mule Market.

FRANK E. SHORT.

CAPT. W. S. TOUGH.

F. E. SHORT & CO.

Managers.

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

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

Special attention given to receiving and forwarding. The facilities for handling this kind of stock are unsurpassed at any stable in this country. Consignments are solicited, with the guarantee that prompt settlements will be made when stock is sold.

C. F. MORSE,
General Manager

E. E. RICHARDSON,
Secretary and Treasurer.

H. P. CHILD,
Superintendent.

CHICAGO.

KANSAS CITY.

ST. LOUIS.

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

—FOR THE SALE OF—

CATTLE, HOGS AND SHEEP.

Rooms 23 and 24, Exchange Building, Kansas City Stock Yards.

Unequaled facilities for handling consignments of Stock in either of the above cities Correspondence invited. Market reports furnished free. Refers to Publishers KANSAS FARMER.

Cheap Homes!

MEADE COUNTY, KANSAS. Organized; county seat permanently located at Meade Center; free from debt; well watered; deep, rich soil; no waste land; fine building stone. Three Railroads coming at the rate of two miles a day. Land cheap, but rapidly advancing. MEADE IS THE BANNER COUNTY OF THE SOUTHWEST, having won a special prize this year for county exhibit at the Southwestern Exposition, fifteen counties competing, and another at Dodge City Exposition over all competitors. Now is the time to invest. For further information address J. A. LYNN, Land and Loan Agent, Meade Center, Kansas. All representations guaranteed.

GARDEN CITY!

The QUEEN CITY of the Arkansas Valley.

Surrounded by the FINEST LANDS in Kansas. Lands cheap, but developing rapidly. Now is the time to invest! Deeded Lands, \$4 to \$7 per acre. Write for full information to

B. F. STOCKS & CO.,

The leading Real Estate Firm in GARDEN CITY, KANSAS.

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.

And such notice shall be published in the FARMER in three successive issues of the paper. It is made the duty of the proprietors of the KANSAS FARMER to send the paper, free of cost, to every County Clerk in the State, to be kept on file in his office for the inspection of all persons interested in strays. A penalty of from \$5.00 to \$50.00 is affixed to any failure of a Justice of the Peace, a County Clerk, or the proprietors of the FARMER for a violation of this law.

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. He shall also give a bond to the State of double the value of such stray.

The Justice of the Peace shall within twenty days from the time such stray was taken up (ten days after posting), make out and return to the County Clerk, a certified copy of the description and value of such stray.

If such stray shall be valued at more than ten dollars, it shall be advertised in the KANSAS FARMER in three successive numbers.

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

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

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

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

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

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

FOR WEEK ENDING APRIL 14, 1887.

Comanche county—Thos. P. Overman, clk.

STEER—Taken up by Hannah Wilcox, in Avilla tp., (P. O. Avilla), March 31, 1887, one red yearling steer, branded F V, valued at \$5.

HEIFER—By same, one roan yearling heifer, left ear cropped, branded F; valued at \$5.

COW—By same, one white cow, 8 years old, branded H on left hip; valued at \$7.

COW—By same, one red and white cow, 3 years old, branded F on left side; valued at \$10.

STEER—By same, one brindle steer, 1 year old, branded F, left ear cropped; valued at \$5.

COW—By same, one brindle cow, 4 years old, triangle brand on hip; valued at \$12.

COW—By same, one black and white cow, 6 years old, both ears cropped; valued at \$14.

COW—By same, one brindle cow, 4 years old, branded F, both ears cropped; valued at \$12.

COW—By same, one red and white cow, 10 years old, branded H on right hip; valued at \$10.

COW—By same, one roan cow, 4 years old, triangle brand on left hip; valued at \$12.

COW—By same, one red cow, 4 years old, branded F, tin tag in ear; valued at \$13.

STEER—By same, one blue steer, 4 years old, branded A on left hip; valued at \$15.

COW—By same, one brindle cow, 8 years old, branded F, tin tag in left ear; valued at \$7.

COW—By same, one red cow, 4 years old, branded Q or something similar on left side; valued at \$10.

STEER—By same, one red steer, 1 year old, left ear cropped; valued at \$10.

COW—By same, one red and white cow, 4 years old, triangle brand on both hips; valued at \$11.

COW—By same, one red and white cow, 3 years old, both ears cropped; valued at \$15.

COW—By same, one cow, 5 years old, tin tag in ear; valued at \$10.

COW—By same, one black cow, 3 years old, branded F, tin tag in ear; valued at \$10.

COW—By same, one red and white cow, 3 years old, branded F; valued at \$10.

COW—By same, one brindle cow, 4 years old, Q or similar brand; valued at \$10.

Lyon county—Roland Lakin, clerk.

COW—Taken up by K. S. Sedgwick, in Emporia tp., March 16, 1887, one red and white spotted cow, dim brand on right hip; valued at \$20.

Labette county—W. W. Cook, clerk.

2 STEERS—Taken up by H. R. Davis, in Hackberry tp., March 9, 1887, two red and white spotted yearling steers, under half-crop off both ears; valued at \$12.

HEIFER—By same, one red yearling heifer, under half-crop off both ears; valued at \$4.

Harper county—E. S. Rice, clerk.

COLT—Taken up by Joseph N. Baker, in Banner tp., April 7, 1887, one brown female colt, no marks or brands; valued at \$17.50.

COLT—By same, one bay male colt, no marks or brands; valued at \$17.50.

Franklin county—T. F. Ankeny, clerk.

STEER—Taken up by A. D. Beel, in Harrison tp., one red steer, about 4 years old, white in forehead and in flank, no marks or brands; valued at \$15.

FOR WEEK ENDING APRIL 21, 1887.

Cherokee county—L. R. McNutt, clerk.

PONY—Taken up by Taylor Hadlock, in Sheridan

tp., March 17, 1887, one bay horse pony, about 13 hands high, star in forehead, white spot on left side of neck; valued at \$20.

Bourbon county—E. J. Chapin, clerk.

MARE—Taken up by John Murphy, in Freedom tp., one sorrel mare, some white on mane and tail, small white spot in forehead; valued at \$40.

FOR WEEK ENDING APRIL 28, 1887.

Crawford county—Geo. E. Cole, clerk.

MARE—Taken up by James Brown, in Washington tp., March 22, 1887, one bay mare, branded B.B. on left hip and on left thigh, V on left shoulder, under bit in right ear; valued at \$30.

2 MARES—Taken up by Hugh H. Fry, in Sherman tp., (P. O. Farlington), April 8, 1887, two bay mares, about 3 years old, white spot in foreheads, one has three white feet, one branded T. V. on left shoulder; valued at \$40.

MARE—By same, one brown mare, about 2 years old, three white feet, branded B on left hip; valued at \$20.

Pratt county—Demey Lewis, clerk.

STEER—Taken up by Edward Kay, in Springvale tp., (P. O. Springvale), March 30, 1887, one red steer with white spots, 3 years old, bob-tail, tips of both ears cut off, branded with a three-pronged brand similar in shape to the toes on a bird's foot; valued at \$15.

Cowley county—S. J. Smock, clerk.

STEER—Taken up by J. M. Jackson, in Windson tp., April 7, 1887, one steer; valued at \$15.

Barber county—Robt. J. Talioferro, clerk.

HORSE—Taken up by James S. Hartzell, of Mingong, April 11, 1887, one bay horse, 14 hands high, branded AF on left shoulder; valued at \$45.

Hamilton county—Thos. H. Ford, clerk.

MARE—Taken up by Henry Nicola, (P. O. Ulysses), April 1, 1887, one 4-year-old iron-gray mare, weight about 800 pounds, streak down face, no marks or brands; valued at \$50.

HORSE—Taken up by D. P. Morrison, (P. O. Johnson City), one dark bay horse, 8 years old, trace marks on sides, branded cross J on left hip; valued at \$50.

Rooks county—J. T. Smith, clerk.

PONY—Taken up by Geo. Nichols, in Plainville tp., one dun mare pony, star in forehead, 5 years old, no marks or brands; valued at \$30.

McPherson county—E. L. Loomis, clerk.

MARE—Taken up by William Strope, in Lone Tree tp., April 4, 1887, one gray mare pony, 5 years old, weight 665 pounds, dim brand on left thigh, broke to work and ride, has been shod all round; valued at \$40.

Closing-Out Sale

—OF— SHORT-HORN CATTLE!

On my farm two miles southwest of
FORT SCOTT, KAS.,

Thursday, May 26, 1887.

I will, on the day above mentioned, sell

to highest bidder my entire herd

of Short-horn Cattle, con-

sisting of

Forty-six Cows and Heifers and Eleven Bulls,

Representing Josephines, Lady Elizabeths,

Ianthes, Belle of Republic, and other families.

The Prince of Clarence No. 44,629, bred at

Side View, Ky., and for which I paid \$500 when

a yearling, will be included in the sale. I have

bred these cattle for many years with great

care, and without regard to cost in securing

the best bulls.

Sale positive, regardless of weather, as it

will be held under shelter.

Conveyances will be in readiness to convey

strangers to and from my farm. Catalogues

will be sent on application to undersigned.

Terms of Sale:—A credit of six months

without interest. Five per cent. discount for

cash.

Sale commences promptly at 1 o'clock.

CHAS. NELSON.

COL. L. P. MUIR, Auctioneer.

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.

The Grove Park Herd.

PURE-BRED

HEREFORDS.

Stock of all ages for sale

—OF THE—

Best Strains of Blood.

Fair Prices.

Liberal Terms.

Address **C. E. CURRAN & CO., Topeka, Kas.**

HAZARD STOCK FARM

—OF—

NEWTON, - - KANSAS,

Breeder of A. J. C. C. H. R.

Jersey Cattle.

The herd is headed by the Stoke Pogis Vic-

tor Hugo Duke bull, St. Valentine's Day 15278,

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, Manager.**

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



GROUP OF CALVES BY SIR EVELYN 9650

Descendants of Royal English winners and Sweep-
stake 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 9704—the smoothest, blockiest family
of the breed: **Sir Evelyn 9650**, one of the best
sons of Lord Wilton 4057; **Grove 4th 13732**, 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 con-
sistent with first-class breeding and individual merit.
Special prices given to parties starting herds. Vis-
itors always welcome. Catalogues on application.
J. S. HAWES, Colony, Anderson Co., Kas.

G. A. FOWLER, ST. MARYS, KAS.

E. S. SHOCKEY, MANAGER, LAWRENCE, KAS.

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

—CONSISTING OF—

200 HEAD OF THOROUGHbred HEREFORD CATTLE,

Including the IMPORTED FOWLER HERD and the FAMOUS SHOCKEY & GIBB HERD,
1,200 head High-grade Hereford and Short-horn Cattle.

We want 1,000 calves annually, sired by bulls purchased of us. Inspect our herd and
learn particulars. Address

E. S. SHOCKEY, Manager, Lawrence, Kansas.

PUBLIC SALE OF SHORT-HORNS

At Riverview Park,

KANSAS CITY, MO.,

Wednesday, June 8, 1887, at 1 p. m.,

Consisting of a Bates Knightby Bull, 4 head
of Bates Louise family, 30 head of Rose of
Sharon topped VanMeter Young Marys and
Phyllises. A few of B. F. Redford's Des-
demonas.

For Catalogues address

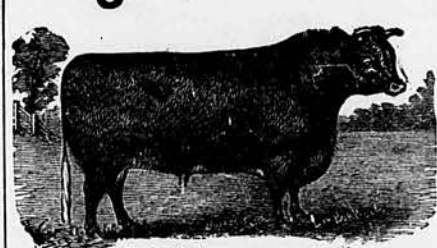
S. A. SAWYER,
Auctioneer.

E. P. GAMBLE, Millersburg, Kentucky.

PUBLIC SALE

—OF—

High-Bred Short-horns!



I will sell at Public Auction, at the Resi-
dence of MR. WM. CHRISMAN,

INDEPENDENCE, MO.,

—ON—

Wednesday, May 25th, 1887,

At 1 o'clock p. m., sharp,

FORTY FEMALES, representatives of
the following families: KIRKLEVINGTON,
CONSTANCE, ROSE OF SHARON, YOUNG MARY, BRACELET and VICTORIA. NINE
BULLS, viz: KIRKLEVINGTON, CONSTANCE, ROSE OF SHARON and BRACELET.

For Catalogues apply to

COL. L. P. MUIR,
Auctioneer.

G. L. CHRISMAN, Independence, Mo.

Public Sale of SHORT-HORN CATTLE!

For the very best of reasons, I will sell at
Public Auction, at my place, five and a half
miles west of

GARNETT, KANSAS,

—ON—

Wednesday, June 1, 1887,

the entire FISH CREEK HERD OF SHORT-
HORN CATTLE, consisting of 35 Females
and 15 Bulls, of the following families: Rose
of Sharon, Young Phyllis, Young Mary, Lady
Elizabeth, Blooms, Mandanes, Amelias, and

other good families, including the entire show herd of 1886. Females old enough will have
calves by their sides or be bred to the champion Rose of Sharon bull, Sharon Duke of Bath 2d
64450 (by the \$6,100 2d Duke of Kent 51119). Parties wishing bulls to head herds or to breed to
common stock, will find this a good opportunity.

FISH CREEK RANCH—Is five and a half miles west of Garnett (Southern Kansas and
Missouri Pacific R. R.), and three and a half miles north of Mont Ida (Missouri Pacific), and two miles south
of Glenloch (K. & N. D.). Conveyance free from all above railroad stations on day of sale.

TERMS:—Cash. Parties desiring time will be accommodated on approved notes bearing 10 per cent
interest. Sale to commence at 1 o'clock. Lunch at noon. Catalogues on application.

Col. S. A. SAWYER, Auctioneer.]

WALTER LATIMER, Garnett, Kas.

Lonergan's Specific

Cures Nervous Debility, Male and Female Weakness, and
Decay. Price, \$1 per package; 3 packages \$2.

Address **A. C. Lonergan, M. D., Louisiana, Mo.**

WANTED

Ladies and Gentlemen to take
nice light work at their homes.

Work sent by mail. No canvassing. Strictly
employment furnished. Address with stamp **W. F. C. CO., 294 Vine St., Cincinnati, Ohio.**

The Veterinarian.

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

PROBABLY WORMS.—What is the cause of my shoats coughing? They get plenty of good water, clean, warm sheds, with good bedding. I feed only corn. What is good to stop the cough? Some run down poor, and some die. [During alternate weeks, so long as necessary, mix among sloppy food, morning and evening, at the rate of one teaspoonful of flowers of sulphur for each animal. Give plenty of sour milk or buttermilk, and place charcoal or soft coal within access.]

SWOLLEN LEG.—I have a seven-year-old mare, that has her left hind leg swollen from the thigh down, but mostly at the hock. Has had it three weeks, and I have tried different kinds of strong liniment, and also warm water bandage, but with no benefit. She shows no pain, and is not lame. [Allow liberty outdoors daily when the weather is fair, and when indoors let her go loose in a shed or roomy box-stall. Feed oats instead of corn, and every evening, during a fortnight only, mix among the food a powder composed of one ounce of flowers of sulphur, half an ounce of black antimony, and two drachms of saltpetre. To the swollen leg apply several times daily, smart friction by the palm of the hand, or by a stiff brush. No other applications necessary.]

FOREIGN BODY ENTERING THE EYE.—Chaff got into the eye of a valuable mare about the middle of January, and for some time it would move about in her eye, say four weeks, then the eye scummed over so that she could not see. At this time I used a wash of sugar of lead and rainwater for three weeks, twice a day. The scum disappeared from the eye except the sight where a spot about as large as the oat chaff still remains. Can anything be done to remove this? If removed would sight be restored? I also have a cow similarly affected, only the time the cow got the chaff in her eye was about the middle of February. In this case I have not used anything. The cow's eye is entirely scummed over and appears to be blind of that eye. [Where a foreign body gets into the eye of an animal the first thing to do is remove it. This is frequently a matter of some difficulty and often necessitates casting and securing the animal, afterwards forcibly opening the eyelids and making a thorough search of the eye. You have not stated whether the oat chaff has been removed in either of these cases. If it has not, remove it. Being satisfied on this point bathe the eyes in both cases once daily with warm water and afterwards put in a few drops of a solution of nitrate of silver, three grains in one ounce of water. Continue this application for a week, then discontinue it for three or four days and repeat again. The sugar of lead is a dangerous medicine to use on the eye.]

INDIGESTION.—What is the matter with my horse, a half Norman stallion, pretty well along in years. He was in fair flesh; about 1st of May he was taken sick after having been fed corn, about fourteen ears of common size, and a feed of shorts in warm mash fed at night. Next day showed some bloat at noon, and in the afternoon he scoured while at work, and was very sick all night, and for two days he remained bloated. I let him rest for about ten days and fed him carefully a little bran, oats and corn, physicked him a little with castor oil, but in a few days he was taken the same way, but did not get so bad, as I was watching him closely,

treated same as before, first with the drench and then gave him a dose of some medicine the veterinarian left, and a very few drops of tincture of aconite in his water, and after that he was sick several times as often as he got anywhere near a full feed; he was sick, though not as violent as the first times. He got very poor and is yet. Was sick only once since September last and then only for an hour or so. He eats good and seems to eat fairly well, but don't get any flesh. I feed him eight ears of corn three times a day, and I can see that he does not digest that very well and so dare not give him any more. He is not shedding any yet, though his hair does not look bad, only long; he has always been a very hearty horse in every way. What shall I do to get him in shape again? [Your horse is simply suffering from indigestion induced by improper feeding, and the attacks which you describe were the result of feeding corn while in the above condition. Discontinue the use of corn and feed on cooked oats and bran equal parts to which a handful of linseed meal should be added. When grass appears turn him out or cut the grass and feed it to him.]

Eleven Importations Within the Last Twelve Months.

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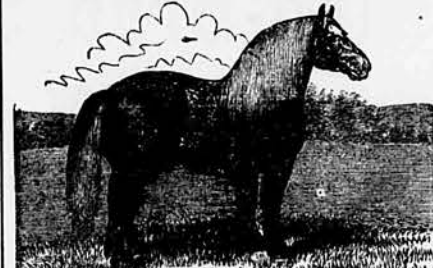
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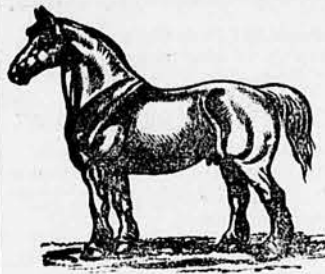
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Stock recorded in Ohio Poland-China and American Berkshire Records. In addition to my own breeding, the animals of this herd are now and have been

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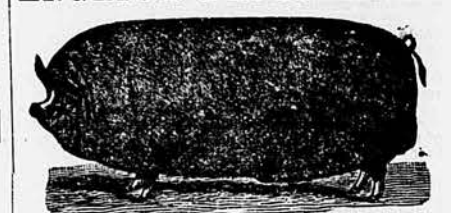
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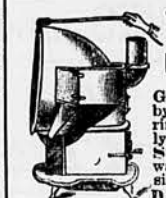
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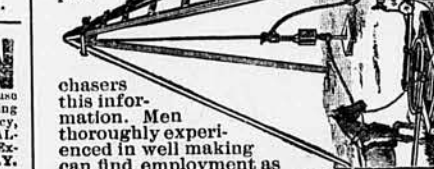
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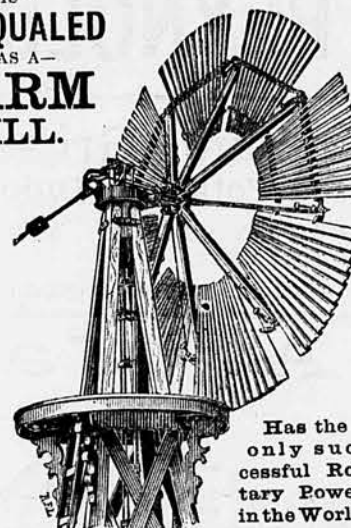
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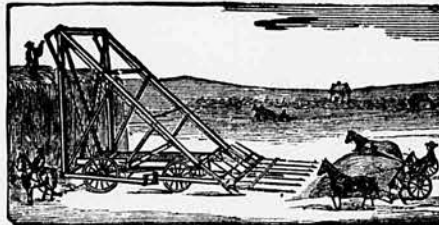
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50 SALESMEN WANTED—To sell Nursery Stock. Good wages. Address, enclosing stamp, for terms, B. F. Brower, Eaton, Ohio.

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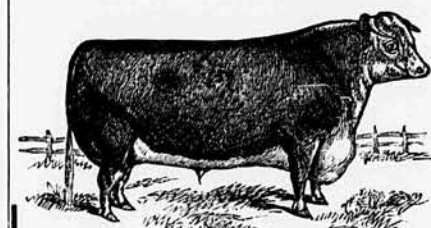
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