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(*Continued on page 20.*)

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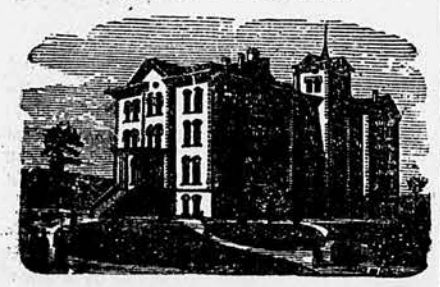

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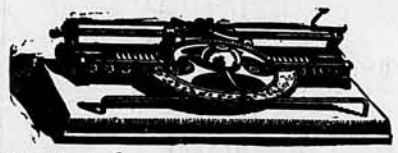

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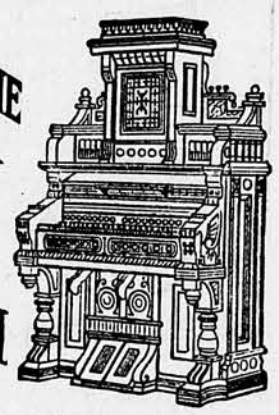

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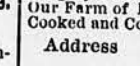

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Set machine so the dust will blow away from the shed, but near and convenient enough that no time will be lost in getting brush from machine to shelves. When the blossom appears, or the head is well out of the boot, or sheath, put breakers to work. Start in at the end and between two rows, walking backwards, breaking bunches alternately from each row, laying tops of one on tops of and just out side of the other. Tabling is generally done about thigh high. Every stalk should be broken square, taking particular pains to lay heads of right-hand row so they will hang just over the edge of left side of table. Left row *vice versa* every head should be in sight. This is important and should not be neglected. The heads should not extend past side of the table farther than the point where the stalk is to be cut, and should never be left inside or on top of table. Cutters that have to search for brush can not be expected to make much speed. Broomcorn is tabled for the convenience of cutting and to accommodate the cut brush, and pains should be taken to see that it does not fall short of the purpose intended. Three good tablers in good corn, one or two rounds ahead, can table for a full set of hands.

The cutting should follow right up. Provide cutters with short shoe knives, and a whet-stone for each man. When it can be done—and do so by all means if possible—hire an expert cutter to superintend the cutting, even if he has to be paid the wages of two men. Broomcorn cutting is a profession, and there are but few men who can go into a field and cut with any speed until they have learned how, and worked at it for several days. The trouble is to cut the brush off and at same time leave the boot and upper blade on the stalk. It takes just as long to pull boot off—if left on brush—as it would to cut another brush, and the time lost with a green hand would amount to from one-third to one-half of a day in a day's work. Cutters will pile the brush on alternate tables laying buts all one way and the brush crosswise of the table. The brush should be cut from five to six inches long; that is five or six inches of the stalk should be left on the brush. This is something that will require a great deal of attention from the man in charge, especially with green men. They will,—in their efforts to cut fast, or keep up with the crowd—get their brush all lengths, and about evenly divided between table and ground—heads and tails—all mixed. It costs more money to take care of brush badly piled than it does to cut it, say nothing about the chance of lossing some every few steps. Broomcorn is never cut right until it is piled straight and even at the buts in small bunches crosswise of the table. The main thing is to get the brush straight when cut, and keep it straight until the wires are tied on the bale. The management of cutting is a very important feature in the broomcorn business. If talking, singing and telling stories—in fact any noise that is made for the purpose of attracting attention, is allowed—the result will be a loss to the business in the way of brush cut too short, or too long, brush piled badly on the table, or piled lengthwise of the table to fall through when shaken, top blade and boot left on for some one else to take off; in fact general indifference as to how the work is done will soon be the rule. We expected, and made the arrangement with our men when they set in, that ten hours each day they would attend strictly to our business, after which they were at liberty. I used no surplus men. I had a place for every man, and my business was to see that he filled the place to the interest of the business.

Nine good cutters will cut for a full machine crew. A man with a good smart boy, one team and two wagons, can draw the broomcorn from the field to the shed. The lower box of a three and one-fourth wagon does first-rate to haul in. Provide a long double-tree and neck-yoke for one wagon. This will allow the team to straddle the vacant table when gathering the broomcorn. Back the load—or drive—to a convenient place, transfer team double-tree and neck-yoke to the other wagon, and go for more brush. It will take one good man to remove the broomcorn from the wagons to the tables—(which was described in "Broomcorn Culture No. 2," KANSAS FARMER, January 12.) This man's business is to keep the tables full of straight broomcorn and not to allow any tramped under foot. If the broomcorn comes to him straight he can put it on the tables in good shape, after which it can be handled as directed in No. 2, (January 12.) The man—and he should be a quick one—that spreads the brush on the shelves should have a long and a short step-ladder; they should be light enough to handle easy. A boy ten or twelve years old can carry the brush from the feeder's box to the spreader. Brush should not be spread more than two and one-half inches on the shelf. Now here, is where you want a trusty man. He must manage this boy altogether. The amount this boy must carry should not be over two and one-half inches deep on the shelf, when spread.

I will say to those inquiring for broomcorn seed—F. Barteldes, of Lawrence, Kansas, advertises an improved evergreen broomcorn and recommends it very highly. Also the California golden broomcorn. The latter I have used and know it to be good. But Barteldes is a reliable house and their recomendation would be good with me.

Their seed is $1.25 per bushel, which is very reasonable. Broomcorn raisers should be on the lookout for good sound broomcorn seed. Whenever you hear of an extra kind—even if you have plenty of your own—send and get enough to show what it is when matured.

A. H. COX.

Potato Culture.

The KANSAS FARMER, recently asked for a discussion of potatoes. Here is a communication on the subject—just the thing to draw out experience of farmers in this important matter.

EDITOR KANSAS FARMER:—I would like to know the most successful way of mulching potatoes on upland clayey soil; what thickness of straw is necessary, whether to put seed under ground or on top of ground; whether to furrow and put seed in furrow or leave ground level. I have not seen any way recomended in the KANSAS FARMER for planting potatoes except the Aspinwall potato planter, and that is a machine. Most farmers can not afford to keep it I will give my way of planting potatoes. I have an attachment which I have made myself to put on the corn-planter. It is simply a spout or box fastened on behind the seed-box of the planter, one on each side; to lead or guide the seed to drop behind the runner of the planter. The box or spout is about four inches square at upper end and just large enough at lower end to allow seed to drop through. I fix a box at each side of planter which holds about a half bushel potato seed; place a man at each box on planter—to pick the seed out of these boxes and drop them. As soon as we begin driving, there is an iron fixed on one wheel which drops to give signal to drop seed, the seed being all cut before beginning to plant. I cut my seed from one to two eyes. Can plant eight acres a day and in much better shape than by furrowing the ground, and save a great lot of hard work. I would like to learn of a cheap and successful potato digger.

F. HOFFMAN.

Otto, Cowley County.

Commercial Fertilizers.

EDITOR KANSAS FARMER:—My object in writing this is not to give information on the subject, because I have had no experience in the matter, but with the hope that some correspondent of experience may be induced to give your readers the benefit of his experience through the columns of the KANSAS FARMER.

1. Will any of the commercial fertilizers enrich the soil so as to be beneficial to succeeding crops, or are they only intended to act as a stimulant, so to speak, to the crop to which they are directly applied?

2. Is common lime, such as used for plastering, enriching to the soil? If so, should it be slacked? How much should be applied per acre?

3. Will clover in any way benefit the soil, when it is cut off the land for hay? or must it be plowed under to enrich the soil?

4. Will any fertilizer used as a top dressing on prairie sod (land that never was plowed) increase the yield of hay enough to pay for using it?

Our prairie land that is now mowed off year after year does not yield as much hay per acre as it did twelve years ago when we had more land to procure hay from and did not mow the same land two years in succession. I would like to try some fertilizer on prairie land if I thought it would pay, as I prefer prairie hay to timothy. The time is fast coming, if indeed 'tis not now at hand, when it behooves the farmers of this part of the State to think of some means of restoring the fertility of the soil. The greater part of our land (in Washington and Clay counties) has raised crops from fifteen to twenty years, and it cannot be reasonably expected that the soil will stand such continual cropping for many years without some return more than corn-stalks and stubble plowed under. What little barnyard manure the average farmer has amounts to almost nothing for the eighty and one hundred or more acres he cultivates.

It seems strange to me that fertilizer manufacturers do not advertise their products in the agricultural papers more than they do. I take *Colman's Rural World* and KANSAS FARMER and have watched each week for some such advertisement so as to write for information and prices.

Should this have the effect of having such advertisements placed in the KANSAS FARMER 'twill not have been written in vain. E. J. MCQUILLEN.

Clifton, Kas.

Grass in Logan--Dehorning Cattle.

EDITOR KANSAS FARMER:—The past season we have been experimenting with tame grass some. The timothy, clover and blue grass, as far as I noticed was almost a failure; but alfalfa in every case that I know of made a fair stand, and it looks like it will be the grass for the section. I have been told that a field once set to alfalfa can't be killed out; plow it up and it will keep coming up thicker. I would like to know if that is the case, as I would prefer to change the land and plow up the old meadows and pastures occasionally and seed new fields.

Last May I dehorned five head of cattle to try it. I was so well pleased with the experiment that I said I would winter no more horns. I used the gouge on the calves while they were under two months old. In November I finished taking the horns off the remainder of the herd; that includes all ages from one week old to twelve years old. It is painful just while the operation is being performed, but no more so than castration. As soon as the horns are off and the animals turned loose they will walk off and go to eating or chewing the cud. They go on growing and fattening, and the flow of milk continues as if nothing had happened. The stable that was only large enough for one old cow, turned loose with horns on, will now hold ten head without horns. Of a cold night they will huddle together like sheep. I think that any one that will try it will say that it is a humane act. One of my cows had her horns chilled two years ago and she has not done well since. A few days after she was dehorned I noticed she commenced to gain both in flesh and milk, and to-day she is as healthy as any cow.

IRA W. MCNUTT.

Winona, Logan county, Kas.

The Cow Pea in Kansas.

EDITOR KANSAS FARMER:—In reply to your correspondent in KANSAS FARMER of January 26, would say that the Southern pea, or as it is known there, cow pea, is grown largely in the State of South Carolina both for human and for cattle food. When a small lad I well remember a large pot of peas being cooked each day for the cows kept by my parents in the village where we lived. Later, in moving to the city of Charleston, we still found them used quite largely for milk cows, selling all the way from 85 cents to $1.25 a bushel. Milk is retailed at 8 to 10 cents a quart; cream, 40 cents. Cannot say whether ever tested to find out if it paid to boil them, which is invariably done, and the yield of milk is said to be quite large from their use. I read in one of the stock papers a short while back where some one, in Illinois I believe, planted a patch, and his milk cows got in among them before he was aware of it. He afterwards found them eating vines and pods with great relish, and the increase in milk was so perceptible that I think he kept them on the peas until they finished them up. The writer has been on the present farm since September 1, 1886, and last year had one pound sent on from his old home to try by way of experiment. Unfortunately they were put in too late, and as it was very dry, made very little growth until the late rains, when they podded very well; and I was hoping that I might save some seed for this year, but the frost nipped them and they amounted to nothing. Have ordered a bushel from there and shall give a thorough trial this year.

BAHNTGE BROS.

Floral, Cowley Co., Kas.

We hope Mr. Bahntge will favor our readers with a report of his experience with peas this year. As he will see by a letter which we print this week from a Mississippi friend, the pea has been tried successfully by at least one Kansas man.... Our correspondent need not worry about the political matter he will find in the KANSAS FARMER. We propose to take part in the discussion of every public question in which farmers are interested, but it will be done from the farmer's and not the political partisan's standpoint. —EDITOR.

The Stock Interest.

THOROUGHBRED STOCK SALES.

Dates claimed only for sales which are advertised, r are to be advertised, in this paper.

MARCH 14.—Sweitser & Odell, Holsteins, at Kansas City, Mo.

WEIGHT AND SPEED.

These are the Most Desirable Qualities for Farmers to Breed For.

There is enough good sense in the following article to justify its reproduction here. It was prepared by Mr. A. Gardner, of Atlantic, Iowa, and was printed in the *Homestead* last September, 23.

It is very evident to any one who has had occasion to learn the views of farmers, or that has been an attentive reader of agricultural and stock papers, that the farmers of the Western country, especially, are not quite satisfied with the profits of horse-breeding. For a number of years back it has been claimed that there was an almost unlimited demand for everything that was the product of an imported horse, whether heavy weight draft, light weight draft, Cleveland Bay, or coach horse. That these all worked in with the cattle and hogs; came to perfection with the same feed and care; were always salable for cash, and would soon transform the plodding granger into a princely millionaire. What is the result? While in no period of the history of the country has horse-breeding received as much attention as in the last ten years, and while all other farm products have continually declined in price, *good* horses, such as have a practical value, have constantly advanced in price, and the market is not supplied. Horse-buyers are taking everything that has weight, or that is clean and active with some speed, and the country is being filled with ordinary work horses, many of them very ordinary. Many a farmer has found that the colts have worked in with the cattle and hogs and eaten up all the profits. A horse that at three years old will not sell for over $100 is raised at a loss. As far as I have ever learned there is no place on the face of the earth where an ordinary work horse will sell for the cost of production. And the man who has no higher ambition than to raise ordinary work horses is simply working for nothing and boarding himself. As it appears to me there are in this country only two qualities in horse-flesh that possess a measurable value, and that farmers can expect to produce at a profit, weight and speed. The low-built, blocky draft horse, weighing 1,300 pounds will sell for a profit over the cost of raising, and that profit will increase with every pound of additional weight. The horse that has the weight and strength to move a two-ton load, while an ordinary work horse could move only one ton, has an extra value over the ordinary work horse that people can measure and appreciate, and are willing to pay for.

The clean-built, active horse, weighing from 1,100 to 1,300 pounds, that can show even no better than a five-minute rate of speed at an easy-going trotting gait, will sell for a profit over the cost of raising, and that profit will increase very fast as the speed increases. Take two horses, weighing say 1,200 each, and as nearly alike as possible in build, style, etc. One picks up his feet and sets them down easily and gracefully, carries them in straight lines without sprawling or paddling, and can go twelve miles an hour. The other picks up his feet clumsily, lets them fall of their own weight, and can go only six miles in an hour. They are either of them worth perhaps $100 for an ordinary work-horse. But the horse that moves off at an easy going gait and shows his ability to go two miles to the other's one, has an extra value over the price of an ordinary work-horse that is worth, perhaps, $100 more, or maybe $1,000, or $10,000 more, according to the speed he possesses. Perhaps this will illustrate the measurable value of speed and weight. To be profitable, however, they must be separate and not combined. The man who wants the horse to move a two-ton load has no use for speed, and the man who wants speed has no use for great weight. In breeding for these specialties there will always be enough off stock to supply the demands for ordinary work-horses in spite of the greatest care and most skillful breeding. Notwithstanding that it may appear evident that the profits of horse-breeding are in the direction of these specialties, yet very few farmers think they are in position to take advantage of these specialties, and what they are looking for is a sort of go-between that they can work in with the cattle and hogs, give the same feed and care, develop from the material t ey or their neighbor happens to have, and make fairly profitable. This is all very well in theory, but in practice has always resulted in ordinary work horses, and always will. There is a very general impression among farmers that the word speed applies only to fast horses, or horses that are intended for races. This is a part of the meaning of the word, but only a part. As applied to the trotter there is what has been called the "poetry of motion" in their easy, graceful movement, that has become as much a national characteristic of the American trotter as the up and down churn-dasher style of action is of the English horse, and this easy-going trotting gait is as characteristic of the trotting-bred horse that can only show a five-minute gait as it is of the horse that can show a 2:30 gait. The ability to show a five-minute, or four-minute, or 2:30 rate of speed at this easy-going trotting gait is practically from the farmer's standpoint what is called speed when applied to the trotting-bred horse.

I have a grade draft mare that can trot a mile in four minutes by the watch. Now, there is not one out of five hundred among what are called good, ordinary roadsters that can near do that, hundreds of trotting-bred horses can't do it, but if I wanted to sell her, her ability to trot a mile in four minutes would not add one dollar to her value, simply because she does it so awkwardly. She does it just as any foreigner does a thing that it isn't bred in them to do. Perhaps with this explanation of the meaning of the word speed as applied to the trotter, farmers who are looking for a go-between may see that it is at least possible to take advantage of this specialty, speed, without being "fast horse" men.

It is my opinion that within a very few years the large size standard-bred trotting stallion will hold the same relation to the horse-breeding interests of the farmer as the Short-horn bull does to the cattle interests. He will be the animal to grade up the produce of the common mare and give them this special quality, speed, the same as the Short-horn bull grades up the produce of the common cow, and gives them the special quality or ability to produce beef profitably. In my own experience, which is not very extensive, but would perhaps represent an ordinary farmer, I am breeding such mares as I have to a large-size standard-bred trotting stallion. Two of them are low, blocky-built grade draft mares. I hesitated about making the cross, but as I could not turn them into trotting-bred mares that suited me, I bred them to the trotting stallion. The oldest colts from this cross are now yearlings. They have clean, broad, smooth limbs, without any tendency to puffy joints. The hair ornaments on the legs are nearly gone, and the foreign gait is completely transformed into an easy-going and rather showy trotting gait. I have a sucking colt from this cross that if it does not solve the problem of the general-purpose horse, comes very near doing so. It has size and substance, good style, and an easy trotting gait that would attract the attention of a Kentuckian. I do not expect they will be fast horses, but judging from present experiences I shall be very much disappointed if they do not have enough size and substance for all ordinary uses, and speed enough to make good salable and profitable horses out of what would otherwise be only ordinary work-horses.

Although contrary to popular belief, I would much prefer good grade draft mares to breed to a trotting-bred stallion, to mares that had any considerable part of the blood of the thoroughbred running horse. The thoroughbred has been bred to run for hundreds of years, and run they will. Their speed is not practically available. As they are very similar in build and form to the trotter they are a very deceptive element in horse-breeding and one that will prove a curse to the farmer in every way. It has been a very favorite theory to convert their speed at the running gait into speed at the trotting gait. But it is a theory that has wrecked nearly every man that has attempted to put it into practice. It is an idea received from foreigners that the only way of improving the horse is by the use of the blood of the thoroughbred, and under their customs and peculiarities it is likely the right way for them, but under American customs and peculiarities it is all wrong. It is right at this point where all that class of imported horses called Cleveland Bays, and coach horses, must prove disappointing in this country. The blood of the thoroughbred running horse constitutes fully one-half of their make-up, and hence they cannot by any possibility give to their produce speed at the trotting gait that is demanded in this country. They have neither speed nor weight, and are therefore nothing but ordinary work-horses in this country, however popular they might have been in their own country. While I believe that strictly trotting-bred mares are the most profitable to breed to trotting-bred stallions where a person is so situated as to be able to develop the speed of their produce, yet for the ordinary farmer who cannot develop more than a limited amount of speed I believe that horse-breeding may be made profitable by selecting good grade draft mares and grading up from them in the direction of either speed or weight. My own preference is for speed, for several reasons. Speed increases in value much faster than weight. Speed enough to be fairly profitable can be produced with greater certainty than weight enough to be equally profitable. Speed is in almost universal demand by all classes of people in all parts of the country, and is the only thing in the horse line that will bear exportatian, while weight is limited to a special use, and is of no value beyond that. In my own experience the trotting-bred horse weighing 1,200 is the model farm horse.

Connected with this subject are some traditions and prejudices and humbugs, that to say the least are not a help to profitable horse-breeding. Nearly all that has been written on the subject has been copied in substance from books written years ago by foreigners, and expresses only foreign ideas. Taking it altogether with imported ideas and imported horses it takes a very smart horse to tell what countryman he is, or what practical purpose he is adapted to. Every nation has its peculiarties in horse matters the same as in other things. The lordly Englishman wants a horse for show. His idea of "action" is of the churn-dasher kind, a great deal up and down and very little go ahead. He has no conception of speed except the bang-tail runner with a hired jockey for the rider. To him the Derby is the most sacred day of the year. The Dutchman, the country Dutchman, can be depended on for a sleek-looking horse, but the town Dutchman,—well, a big fat man and a big fat woman, and a family of big fat children out for a Sunday ride, drawn by a scrub pony—any way to get there—suits the town Dutchman. The Frenchman ain't very particular. He is a quick, active fellow, and had as soon go afoot as ride if he is in a hurry. These are some of the peculiarities of foreigners in horse matters, but are none of them peculiarities that will sell at a profit to the American public. The average American wants a horse that can walk along leisurely, or stand a disinterested listener while the lady driver stops to gossip with her neighbors, or jog along an easy trotting gait when the lady driver slaps him with the lines, and forgets to jog along when the lady driver forgets to slap him with the lines; or be able to show a four-minute gait, or a 2:30 gait, accordiug to the purse of the owner, when the master of the house goes out for a "brush" on the road. The average American can't afford to keep a slow horse for his wife and children and a fast horse for himself. And then his wife and children are sometimes a little fast, too. The American horse must be a horse of many accomplishments, but no foreign airs. The imported hair ornaments for the legs, the very slim arched neck that comes out between the fore legs instead of between the shoulders, the gait that is "very English, you know," kind of half way between going ahead and going backward with a very decided up and down tendency, may be very "fashionable" at the "shows," but are things that the American public are not hankering after very bad. A very taking humbug with some farmers is the coach horse. The farmer who thinks he can breed a coach horse and sell it for a fancy price is badly fooled. It takes skill in breeding and skill in developing to produce a 2:30 trotter. But when he goes under the wire and the watch stops at 2:30 there is a recorded fact that sells him. But to produce a certain carriage of the head, and a certain curve of the neck, and a certain stately high-stepping action, requires not only skill, but skill in the superlative degree; and then to set off these accomplishments and sell them to the high-toned rich fellow who is all for show, requires an expert in superlative skill in the shape of the city dealer who takes all the money and leaves the poor granger the honor of having produced a coach horse. Until I learn a better way, my motto is to combine all the good qualities possible consistent with having speed enough at the trotting gait to make the outfit salable at a profit over the cost of raising. I know there are a slow class of people who don't like speed and don't hesitate to say so with an air of holy horror and pity for those that do. But so long as the Ameriean public will pay hundreds of dollars for the sucking colt that has nothing but an inheritance of speed, and thousands of dollars for the horse whose speed has been developed, while the "woods is full" of horses that look as well but have no speed and go begging for a buyer, it is very safe to conclude that breeders of trotters will not "pine away" because some one don't like trotters. The truth is the trotter represents the greatest improvement ever made in horse-breeding, because it makes the speed of the horse practically available for every-day use, something never before accomplished. The horse that can't trot may be a real good kind of a horse, but the man died that wanted to buy him.

In the Dairy.

Some Cow Reflections.

There is the greatest difference imaginable in the different milking qualities of cows of the same breed and of the same families. Some cows develop into good milkers from their first calves; while others fool along for a year or two and never do any better at last. The development of a cow, so far as the milking qualities are concerned, depends largely upon the person who has charge of her during the time she is being turned from a heifer to a cow. Some milkers will not only not develop all there is in a cow, but they will actually ruin the heifer for all time afterward. Some cows seem to have a much greater ability for holding up the milk than others, and they seem to know it when they have this power, and glory in tantalizing the milker. It would seem that they have the milk safely stowed away in the uppermost recesses of their anatomy, and that they let it down in full payments, in large installments, or in broken doses. The "open sesame" to this class of cows is a bucket of bran, and their motto seems to be "No feed no milk;" and right well do they live up to this motto. If you must keep such a cow you should prepare yourself with plenty of feed for her, or it is a foregone conclusion that you will get no milk. This cow frequently has some redeeming qualities, for it is quite often the case that she will give you a good interest on the food that she so silently, yet so positively and so regularly demands. I have seen men lay aside their religion for the time-being to vent their spleen on a cow that would not give down her milk when they were in a hurry to go to town or a hunting. They have gone so far as to accuse her of being of uncertain parentage, and other things equally as elevating in character, but I don't remember of ever seeing a cow come to terms and give down her milk at once after receiving such a free lecture. I have seen her turn upon him with such a gentle look of wonder that his wrath became ungovernable, and he fell upon her and abused her physically, but "nary a milk" did he get by the operation, and missed the train to town, as well as the other men who went hunting. Then again there are the cows that do not care a farthing how quickly they get rid of their milk, and seem to pour it out as soon as possible. This kind of cow has many friends, and if any cow gets a monument it will be she. If you will trace her history you will find that she has been in the hands of friendly, intelligent people during her youthful days, and has contracted good habits. If you want to sell a cow don't sell this one, for her calves, under like treatment, will be as clever milkers as she is. If you are keeping a herd for dairy purposes you will do well to keep a sharp lookout to the individual notions of the different cows you own. By this method you will be enabled to get together a herd of cows that will be gentle, kind and deep milkers. It may take you a lifetime to do it, but you cannot spend a life in any way that you will be more proud of at its end, or be of more benefit to the rising generation than this. Discard all cows that develop objectionable habits naturally; be sure that you do not instill into them resentful characteristics by ill-treatment during the time they are changing from calves to cows, and you will be spared many a season of torment that you would certainly experience otherwise.—*Dr. C. A. Robinson, in Stockman and Farmer.*

Dairy Notes.

In this country nearly two dollars' worth of milk, cream, butter and cheese together are sold and consumed to every dollars' worth of beef. What is more, there is not much danger that the market for dairy products will ever be less than it is now—it is practically inexhaustible.

One reason that dairy butter does not bring the highest price, is because too many farmers keep it in their vegetable cellars. A cellar is no place for butter, no matter how clean or well ventilated it may be. There will be more or less odor from vegetables that the butter will absorb.

Prof. Stewert says: "Neither cornmeal nor bran is the best milk-producing food. With the best clover hay cornmeal should be added as part of the ration—but with cornfodder, straw or poor hay, good wheat bran should be added instead of cornmeal. Bran will balance poor fodder much better than cornmeal. But in making up the milk ration the feeder should seek variety in food. Cornmeal and bran together are better than either alone. The kinds of food best in a milk ration depend upon how the foods balance each other."

It seems that many of the patrons of the cheese factories in Canada make a gross yearly earning of only $80 per cow, and yet they buy farms off of such profits. This is done in a cold and bitter climate, with only a very short season for dairying, for the great depth of snow-fall in that section prohibits winter dairying, as no man could get to a factory with his milk. The speaker who gave this information was told that if they did it they could not live like live Yankees live while they did it. This must be true, and hard indeed must be the lives of those who save money from such earnings to buy farms. Such, however, is the rule in Europe, and is one more cause to make us rejoice that our lots were cast in these United States, where, if we do not get rich, we all live well.—*American Dairyman.*

The Poultry Yard.

The Poultry Blaze.

EDITOR KANSAS FARMER:—Having been asked a number of questions lately about poultry-raising, I've concluded to write upon the subject. So many poultry-people are continually asking the question—"Why don't the hens lay?" The reason they don't lay is they are not properly cared for. When you enter into the poultry business, even for your own family, don't do it with a sleepy, don't-care feeling. You must be wide-awake and look after the details if you expect to succeed.

No one needs poultry who has not a poultry house, or some good building to shelter the feathered pets from the storms and bad weather. The poultry house should be in good shape before the fowls spend a night there. It should be well constructed, thoroughly whitewashed, and have good ventilation. In addition to the above you should have feed troughs, boxes for oyster shells, ground bone, etc. Make nests neat and put some clean hay or straw in them. Have porcelain eggs, or eggs made of plaster of Paris and water, for nest eggs. In short, make everything attractive and comfortable for your fowls, and they will like their home and not feel so much inclined to leave their eggs in the barn loft or fence corner.

The great trouble with many poultry-dealers is they put too many fowls together. It is not keeping a number of birds in a small house that gives the best returns, nor slipshod attention to poultry that fills the egg basket; but it is an ever-watchful eye for their wants that will make them sing their cheerful songs and greet you with a happy countenance.

Some are still in very dark corners and think that feeding and watering fowls is all that is necessary to get a number of eggs, regardless of the quantity and quality of grain or other food fed and how often they are given fresh water. That poultry-keepers think their hens ought to lay well when they get no attention to speak of, is what surprises me. They dread the cholera. "I'm afraid my fowls, or a part of them, will be swept away by that terrible disease," is not an uncommon expression to hear, yet they will go plodding along in the same old path of inbreeding year after year and keeping birds until they are so old they have forgotten whether they were hatched in 1870 or 1875, and so on till one almost loses breath wondering what will come next.

Allowing your poultry house, drinking troughs, nests and poultry yards to get filthy, is a very good way to encourage cholera or disease among your birds. To persevere with your fowls in a proper way for three weeks and neglect them six weeks, as many do, is a sure way to fail in the poultry business.

As to breeds, there are many good ones, yet I prefer the single-comb Brown Leghorns, and they make an excellent cross on the common fowls or larger breeds, such as Plymouth Rocks, etc. The single-comb Brown Leghorns have the right name when called "The flower of the poultry family." C. S. Robinson, Weir City, Kas., speaks of them as being as near an egg machine as there is in the world. I have two single-comb Brown Leghorn hens that laid eighty-four eggs in forty-nine days; they laid till moulting time and are laying again. I shall give to the public a poultry report the first of next January, and all readers of poultry papers can see for themselves what the single-comb Brown Leghorns are doing. In my next article I'll tell about perches for fowls, and other practical things.

BELLE L. SPROUL.
Frankfort, Marshall Co., Kas.

Eggs, Eggs.

EDITOR KANSAS FARMER:—There seems to be a disposition among some of the poultry-breeders of the State to hamper or injure the business of their fellow craft who may chance to have a fancy for a variety other than what they are breeding themselves. It emanates from parties who do not, and have not, bred the varieties they condemn, or their experience has been with inferior strains of those varieties. There is as much difference in the laying qualities of laying varieties as there is between varieties. So we find it with every variety. Now and then we find one of the busted experimentors, when he sees anything bringing out the good qualities of his blasted hopes, he raises his hackle, drops his wings, and tries to knock all the feathers off at one stroke. The Leghorn comes in for a large share of these knocks from some of the all-purpose fowl fellows. They generally make a dive at his comb. They tell us a large comb would disqualify him, and they deprecate the fact that some fanciers are neglecting their standard. Another would say this comb is in the way and so liable to freeze, and that no one ever knew a chicken to lay with a frozen comb, and that such are only fit for a hot-house. They know about as much about the strains they would "down" as the young lady when she asked her country cousin what kind of chickens she had. She told her they were Leghorns. She said, "My! how stupid of me! I see the horns on their limbs now." They tell you that the liability to freezing is what has led to the breeding of rose-combed Brown Leghorns, when in fact the rose-combs originally were imported from Leghorn, Italy, where we get the largest single-combs from. If we had our way about it we would say that any one that would attempt to winter any variety of chickens in an apology for a hen house that would freeze a Leghorn's comb, ought to be prosecuted for cruelty.

We selected the Brown Leghorn—first, because we liked their color, style and general make-up; second, because they have a great egg record—in fact, lead all others; third, because there was a clear field for their products, while the table fowl has beef, pork, mutton, fish and game to compete with here in the West, while in the East the table fowl has the advantage, where they are sold for 40 to 75 cents per pound when sixteen weeks old.

We have been, and still are, feeding for eggs. We want a strain equal to that famous old hen that was sang so much about in 1861–65:

"Somebody stole my old blue hen;
They had better let her be,
For every day she laid two eggs,
And Sunday she laid three."

And if a strain of great egg-producers develops a phenomenal comb, why we will take the comb if we have to make them quit roosting on the buggy and fence and let them roost in a house to save their combs.

Come now; let's hear what you are doing with your own poultry; how you manage to get the best results; not what a fellow ought to do, but what you have done. There are a great many people engaged more or less in the poultry business in the State that certainly have had failures and successes, and by accepting the kindly offer of the KANSAS FARMER and contribute to its columns, you can materially advance the interests of the business and receive your share of the harvest that surely awaits the Kansas poultrymen in the near future. F. A. A'NEALS.
Oakland Grove Poultry Yards, Topeka.

Correspondence.

THAT CRUEL PENCIL.

Correspondents of the KANSAS FARMER have added much to the worth of the paper this winter. We have had more original matter than ever before, and we regret that it is impossible to print all the letters received. In connection with letters of correspondents, we have essays and addresses delivered before Institutes and various societies and associations. Friends wonder why their letters or addresses do not appear. We might work them off faster if we were willing to drop our department plan. The matter is divided into Agricultural Matters, Stock Interest, Horticulture, Dairy, Poultry, Bees, Home Circle, Young Folks, Correspondence, etc. This arrangement will not be disturbed, and the original matter which comes in is used in whatever department it is best fit for. We have a large number of letters on file now which belong to this (Correspondence) department, and if they were all printed in full the matter would fill about eight pages of the paper. We do not want to hold them over, lest some person be offended; and as they cannot be all given in full, we will select portions from each, and ask our friends to pardon us for the use of that cruel pencil. The parts selected to save will be such as best express the points which the writers wish to present.

Protection Better Than Free Trade.

EDITOR KANSAS FARMER:—Allow me to express my satisfaction with the way in which the KANSAS FARMER is conducted. I like a live, wide-awake paper, one that has the courage of its convictions, one that dares to show its hand upon the live issues of the day, and that keeps well abreast of the times in their discussion.

I am much interested in the tariff articles, *pro* and *con*. I am a protectionist. I believe that our protective system is largely instrumental in our great industrial and national prosperity. Our home market is almost immeasurably more important to us as farmers than the foreign market; and I would see it protected by an impost duty upon foreign goods which shall encourage and build up manufactures in our midst, thereby decreasing the distance between producer and consumer, dispensing with the services of many middle men and go-betweens, and eventually cheapening the articles which may be, (but not always are) temporarily increased in cost by the tariff. Give us diversified industry, employing all the people according to their diversified tastes and desires, and we have a prosperous, happy people.

A foreign market for farm products is limited and precarious. It only demands a few staple articles, and its demand for these is uncertain. This year it may want all our surplus wheat at a fair price; next year it may supply itself from India or elsewhere cheaper than we can afford to sell; and our beef may be in demand this year and not wanted in a twelve-month. On the contrary, the home market is measurably reliable, steady, and adequate, and it is almost unlimited in the variety of its demands. A farmer in the vicinity of a manufacturing town finds an eager market for almost everything his soil will produce, and a very large part of the most profitable products of the farm are, by their bulky or perishable nature, absolutely precluded from a distant market.

Why are farms in the vicinity of Topeka more valuable than those a few miles distant? Simply because they are more accessible to the market afforded by the number of railroad and other laborers—consumers, of the city. And who doubts but the value of those farms will increase as factories are planted and the population of the city increases; and yet we have free traders asking how protection (which builds up these factories) helps the farmer.

I have read a great deal free trade literature, including some of the tracts of the Cobden club—those patriotic englishmen who appear to be possessed of a consuming desire to secure the American markets for their manufactures—and through all these essays and speeches runs the egotistic assumption that they, the authors, are possessed of all the wisdom, patriotism, and philanthropy with which this subject has yet been graced; that they alone are broad-gauged, liberal, and far-sighted, and all who differ therefrom are narrow-minded, ignorant and bigoted. Perhaps there may be minds upon which such majestic assumption of superior wisdom and patriotism may have an imposing effect, but I doubt if they will be found among the intelligent readers of the KANSAS FARMER.

I was amused at Mr. Gill's array of figures upon the tariff on wool, and I wondered what was the use of a man's studying the science of political economy when he could draw upon his imagination and make a tabulated statement of figures with such a sublime disregard of facts. Says a pithy proverb—"You may do anything with bayonets but sit on them." Anything may be done with figures except overbear palpable facts. And the facts that good comfortable clothing and good wholesome food are as cheap here as anywhere, that our laboring people are better housed, fed, and clothed than any laboring people of any free trade country on God's green earth, and that hundreds of foreign laboring men seek our shores to better their condition where one leaves our shores for the same purpose, effectually dispose of all the sophistical array of figures with which free traders are wont to attempt to portray the beneficient effects of their theories upon laboring people.

Henry Clay used to tell a story of the discomfiture of a free trade orator, who arrested the regular flow of his eloquence long enough to ask a by-stander—"Don't you know that these tariff monopolists make you pay six cents a yard more for that shirt on your back than you should pay for it?" "I suppose it is so, as you say so," said the surprised and somewhat scared auditor, "but I hain't got no larnin', and don't quite understand it, as I only gave *five and a half*."

Six cents per yard was at that time the duty upon that class of cotton goods, but competing home factories had reduced the price of the goods even below the duty. Instead of the duty being a tax paid by the consumer, it's direct and logical tendency is to decrease to the consumer the cost of the article consumed. The free trader exultantly asks, "how is it possible for the duty to do the manufacturer any good unless it does increase the cost of the article sought to be protected?" Simply because protection gives the manufacturer the benefit of an eager, adequrte market, in the face of which he can run his factory on full time, and at or near its capacity; certainly he can afford his goods cheaper than when he has to beg for a share of a precarious market already loaded with wares produced with underpaid foreign labor.

A word as to the character of labor in free trade countries. It is little better than serfdom. What american desires to see the condition of the laboring classes of this country smoothed to a level with the condition of the laboring classes of the United Kingdom of Great Britain? Yet nothing would accomplish that end so quickly as unrestricted commercial relations with that country. We do not need the counsel or friendship of England upon commercial matters. Ireland and India have had that, and I am sasisfied with witnessing the result of their experience; I do not care to see it repeated in our country.

Free trade is an ally of slavery. Slavery never interests itself in the welfare of the laboring class, but is always adverse thereto. In the days when slavery existed in this country, every slaveholder (with a few prominent exceptions, notably Henry Clay,) was a rampant free trader, and few of them have yet experienced a change of heart upon the subject of the tariff. Calhoun's incipient rebellion in South Carolina was simply an organized resistance to the collection of tariff duties in the ports of South Carolina. This is a matter of history. Instinctively the slaveholders of the South distrusted their greatest statesman, Henry Clay, although he was a slaveholder as they were, because he was the prominent leader and champion of a protective tariff, which they knew full well meant protection to the wages of labor and the resultant elevation of the laboring class, which they both feared and abhorred. And when, at last, the slaveholders went into rebellion, they declared in the Confederate Constitution that no law should be enacted to encourage or foster any industry whatever.

But I feel I have already made this communication too long. However, Mr. Editor, indulge me in asking a question. Why are we not a free trade nation? nearly all our text-books upon the subject of political economy are written by free traders, and teach the doctrine. Our college doctrinaires are free traders. We have an active specimen in the State University at Lawrence, and several at Manhattan. Why are not all the young men graduating from these institutions free traders?

EDWIN SNYDER.

Oskaloosa, Jefferson Co., Kas.

The Tariff and Trusts.

EDITOR KANSAS FARMER:—The KANSAS FARMER has devoted considerable space to proving that the necessities of life, with a few exceptions, are not enhanced in price by the tariff. While I am not willing to admit that your figures are absolutely accurate and conclusive, they do show that under natural conditions American manufacturers could make goods as cheaply as any manufacturers in the world. Proving that you have proved that the object for which a protective tax was levied has been accomplished. Manufacturers can no longer plead the inequality of wealth and undevelopment of resources, as compared with older countries.

In the KANSAS FARMER of September 22d, you gave us one reason why the tariff should not be removed, the danger that English manufacturers would combine to flood our markets with goods sold at or below cost, break up our manufacturers, and then raise the price. Such a thing is not likely to happen, because English and American manufacturers are so nearly matched as to wealth and ability that that the former could not destroy the latter without, at the same time, destroying themselves. The Americans would also have in their favor the cost of transporting the goods across the ocean. In the last annual report of that great English bug-bear, the Cobden Club, they say, "We do not forget that the adoption of a free-trade policy by great producing nations like America would probably put a severe strain upon our power to compete with all comers in neutral markets."

On the other hand, under our present high tariff, there is a constant temptation to form trusts to keep up prices, causing violent fluctations in the price of materials, thereby destroying foreign trade; as for this trade, prices must be made long in advance. For example, in May 1879, pig iron sold for $17 per ton; in January 1880, at $35; February, $40.; March, $36.; May, $24. The following from a Minneapolis paper gives another and more recent example: "Until last year and for some years prior, we had been getting our steel at four and a half cents a pound. There was nothing to indicate that the mills were not doing a prosperous business at that rate, Their salesmen were active in soliciting orders, their trade was good, and I read occasional accounts of increase in their facilities for supplying the demand. Under the free competition among the steel works the prices varied but little, and the changes were made in fractions of a cent. We adjusted our prices to consumers to the prevailing price of material, and based our estimate of profit on it. Last year the Steel Trust was formed, and the price advanced rapidly, until now the steel we bought last year for two and one-half cents a pound costs us ten and one-half cents a pound, an advance of 125 per cent. This is not due to any increase in the price of iron or wages, but solely to the rapacity of the trust, and the Trust is made possible by the tariff. Against the last advance of 2 cents a pound. I remonstrated to the salesman of the Pittsburg firm of whom we bought. "It is easy enough to avoid that," he said. "Join the Northwestern Plowmaker's Association, and you will get a rebate of 2 cents." He explained to me that the association had been formed to protect the plowmen against the increase in steel, and to make a united advance in the price of plows to cover the increased cost, that the association had met the opposition of one of the most extensive makers in Illinois, who refused to come in and persisted in making his own prices for his wares. The association had then asked the Steel Trust to advance prices 2 cents and give to the members of the association a rebate of that amount, in order to bring the recalcitrant to terms. The effect has been an advance in the price of plows, and shifting of the steal of the Steel Trust from our shoulders on to those of the farmers. I am no longer a protectionist when that policy renders such robbery possible."

WM. C. COLEMAN.

Tariff Suggestions--No. 2.

EDITOR KANSAS FARMER.—From the special report of the Kansas State Board of Agriculture, issued by Secretary Sims, November 12, 1886, I learn that the number of sheep in the State of Kansas increased from 106,224 in 1875 to 426,492 in 1880, and to 875,193 in 1885, and decreased to 652,144 in 1886, no figures being given for intervening years. Those figures indicate pretty plainly that there was money in sheep from '75 to '85, and taken in connection with divers and sundry rumors and reports made since the assessment of '86, of which no exact figures are at hand, also indicate just as plainly that sheep husbandry has become unprofitable of late years. Figures for '84 might change the apparent turning point from '85, but no one would expect the number of sheep to decrease on account of tariff reduction the year the reduction was made. Men, after spending profitable years in collecting and improving their flocks, will hardly be expected to materially diminish their numbers during the first unfavorable year, nor would the reduction of the tariff have its full effect on prices as soon as made.

Mr. McCartney states that the year after the tariff reduction sheepmen got better prices for their wool than during the year previous to the reduction. He evidently means by this, if he means anything, that the reduction of the tariff raised the price of wool in the instance mentioned. Although the gentleman advances the argument, he will hardly attempt to maintain his position by claiming that there has not been a sweeping decline in the price of wool since '83, sufficient to encourage some sheepmen to quit the business, though flocks were increasing in numbers previously.

He asks why are wool-growers not benefited by the present protective tax. They are benefited by the tax which maintains the prices of their product higher than they would be if the tax were removed, though the present is a revenue rather than a protective tariff. To be protective, a tariff should be high enough to discourage importation and to encourage home production, which is not the case with our present wool tariff.

Another correspondent gives some figures that are interesting but fallacious. He allows his farmer $6 profit from protection, which is reasonable, but charges him $22 for a suit of clothes, whereas the $6 will, as a matter of fact, buy the farmer a suit of clothes, leaving said granger just one suit of

clothes better off than he would be under free trade.

Why the dilapidated state of wool markets, etc? Largely because there is too much foreign wool in our markets.

The only sensible argument advanced by J. H. Mc. is substantially that the large sheepmen would ultimately be better off if by the removal of the tariff and consequent reduction of prices the small sheepmen were driven out of the business. That reasoning is sound. If the object be to build up a monopoly of wool-growers, by all means remove the tariff from wool as the readiest way to drive the little men out of the busi- As they are going you big men can buy the remnants of their flocks at your own prices, and when the business is in the hands of a few millionaires, you can form a combination that will control legislation and transportation as do other monopolies now. By legislation you can then secure a tariff that will raise your profits enormously, and by your controlling influence on transportation you can keep the little men down.

ED F. KELL.

Deerfield, Finney Co., Kas.

Protection for Cattle.

EDITOR KANSAS FARMER:—The hundreds of cattle that have died off in the past few weeks ought to teach us to protect our cattle from the storms and cold. A good shed and wind-break can be made with lumber at a cost of about 50 cents a foot, say 100 feet of shed cost $50. This protection to fifty head of cattle would be more than made back in the extra value of the cattle. Besides, our human and moral responsibility should compel us to provide protection; just imagine yourself out in the cold, wind, and storms without protection, night and day, and you would want the law to provide for your protection. "A merciful man is merciful to his beasts." C. E. HILDRETH.

Altamont, Labette Co., Kas.

Under ordinary circumstances a calf begins to nibble about a good deal before it is two months old. By the time they are that age or a little later they should be systematically put up and taught to eat. They very soon take to their allowance of bran or cornmeal and gradually come to eat freely whatever is fed to them.

Inquiries Answered.

VETERINARY.—Please recommend a good veterinary book for Kansas.

—Law's Veterinary Adviser is good. It can be obtained through this office.

DEHORNING CATTLE.—A correspondent wants information about dehorning cattle. The address of the great dehorner, H. H. Haaf, is Atkinson, Henry Co., Ill.

BROOMCORN.—If our Allen county correspondent will write to Hagey & Wilhelm, St. Louis, he can get the desired information. The particular statement referred to was taken from a Chicago trade paper.

WOUNDED COW.—I have a cow which was wounded some six months ago, supposed to be from a hook. It is worse now than at first. More bloody than mattery, though offensive smell. Please tell what is best to be done. Seems healthy.

—Wash the wound out thoroughly with soap water, then blow pulverized alum in it to remove the proud flesh (gangrene); repeat both processes until the wound is clean; oil it and keep clean. Keep the cow well protected from rough, stormy weather.

TAR ON HOOFS.—In the December 15, 1887, issue of the FARMER, in an article on "Brittle Hoofs," (Veterinary column), you say: "Tar is sometimes used as a hoof-dressing with advantage, but it needs caution in its application," but do not give any reason why caution is necessary. As I occasionally use tar on my horses' feet, I would like to inquire into the reason why and wherefore caution is required in its use.

—The prescription was not prepared in this office. We suppose, however, that the caution is a mere matter of cleanliness.

YOUNG TREES IN OLD ORCHARDS.—I have a young orchard beginning to bear in which a large number of trees died the last two seasons, and think of filling up the vacant spaces with young trees this spring, but have noticed that some authorities seem to regard that plan with disfavor. Do you think it would be best, and if not, what is the objection?

—In an orchard as young as yours, we see no objection to putting in the young trees. In old orchards young trees rarely do well, because, probably, of the proximity of so many large trees.

TALMAGE.—Please be so kind as to inform me, through the FARMER, who publishes in book form the writing of Dr. T. De Witt Talmage.

—The American Press Association, N. Y., publishes his current sermons, and the manager can give specific information concerning the books.

HOPS.—We would like to have some articles through the KANSAS FARMER on hop-culture in Kansas. Can they be successfully raised, and how can the vines be started, and how should they be treated for the market? Tell all about it.

—If some farmer can do the hop business like Mr. Cox has done up broomcorn, our correspondent will have called out something useful to all Kansas. The editor saw good hops raised in Wilson county (Kas.), in Fall river valley, some years ago, but had no personal experience in hop-growing.

LAMPAS.—Can you please tell me how to cure the lampas in horses? I have several nice young colts, and they are all getting poor. I would be pleased to hear of a good remedy at once.

—Scarify the swollen parts immediately behind the upper front teeth. Use a sharp knife blade or lancet. Don't cut deep nor far back—not more than an inch from the teeth. Just behind the third bar an artery lies near the surface, difficult to manage if cut through. Be careful about the feed, to keep the blood in good condition. Keep the bowels easy and the skin clean.

SPLINT.—I have a 4-year-old mare that has a lump on the inside of her left fore leg just below the knee, on the flat part of the leg. The lump is about half an inch thick, one inch in circumference. One of the same kind on the right leg, but on the outside of the leg, just below the knee. The lumps are not hard and have not made the mare lame yet. They have been there over a year. If you can tell me how to get rid of them with but little injury to the mare, I will be much obliged.

—The protuberances are known as splint. As long as the mare is not seriously affected in her gait, let them alone. Their removal by surgery will leave ugly scars.

GALL.—Dr. F. H. Armstrong, V. S., Topeka, writes us, referring to an answer in this department two weeks ago: "Please let me state—The horse has no gall-bladder. The biliary ducts originate within the lobules in a plexus among the hepatic cells, called the *intra lobular biliary plexus*, and form the duct called *ductus choledochus*. On leaving the liver it passes to the walls of the duodenum (the first of the small intestines), posterior to the stomach, and there joins the duct of the pancreas, called the duct of wirsung. The two then combine and form the *ductus communis*, and enter the duodenum about five inches from the stomach, where a valve or circular fold of mucous membrane prevents the entrance of food from that organ." [No wonder we got it wrong.]

SWELLING AND ULCERATION.—I have a mare 6 years old, she has something the matter with her. About one month ago she got very lame in hind leg, and about week after there was a boil or blister come on, and since that several of those boils come on her legs, and it is now swelled up to her body and very lame in that leg. She eats and drinks hearty; is in fair flesh. What is the matter and what will cure?

—Let some experienced horseman see the mare at once. Lose no time, for the case needs prompt attention. If there is no such person near you, talk to some good physician about it; let him see it if possible. We do not feel safe in prescribing without a personal examination. It may be nothing more than a skin disease which a change of feed will cure, but it is probably something worse, and may require careful management.

FRUIT TREES.—Would you kindly print the voted list of fruit trees and grapes for Kansas? I wish you would, so I could make my tree order accordingly.

—As you do not give your postoffice address, we will give you the voted list for central Kansas. *Apples*—Summer—Early Harvest, Carolina, Red June, Red Astrachan, Cooper's Early White, Hightop Sweet. Autumn—Maiden's Blush, Rambo, Fameuse, Lowell, Fall Wine. Winter—Winesap, Ben Davis, Rawle's Genet, Missouri Pippin, Willow Twig, Jonathan, Rome Beauty, Smith's Cider, Gilpin, White Winter Pearmain. *Grapes*—Early—Hartford Prolific, Moore's Early, Ives, Concord, Champion, Warden, Dracut Amber, Delaware. Medium—Concord, Delaware, Dracut Amber, Agawam, Martha, Ives, Lady, Norton's Virginia. Late—Catawba, Clinton, Concord, Ives, Isabella, Union Village.

HEN MANURE—INDEX.—Now, as spring is approaching and we are planning for garden and "truck patch," we turn to you for information in regard to the best manner of using hen manure. Perhaps you have given it before, but as there is no "table of contents" cannot find out. Please, could you not give a "table of contents in each number?" It would add so much to its value Many times we want to refer to an article we are sure we have read in the FARMER, but its like "looking for a needle in a hay mow."

—Immediately after the ground is plowed or dug, spread the manure dry on the ground and harrow or rake it into the soil so as to mix it well with the surface soil. (2) As to the table of contents, that has been discussed frequently of late. We expect soon to publish such a table every week, and to prepare and print a general index at the end of the volume.

TWO CENTS A MILE.—The following question was asked at the Mission Creek Farmers' Club, and after some remarks on the subject, it was moved that the Secretary address the question for answer to the KANSAS FARMER. What caused the newspapers of our State a few months ago to so persistently agitate the matter of a reduction to two cents per mile on passenger rates on all railroads in our State? Was it done in the interest of justice to the public? What caused that agitation to so quickly and simultaneously subside?

—The question is not answerable for the reason that there was no such general advocacy of the two-cent-a-mile fare as the club assumes. The KANSAS FARMER three years ago proposed that rate on distances over one hundred miles, but we have never had any general support in the matter from the newspapers of the State. It may have been advocated by a few papers, but by very few comparatively.

DRESSING SKINS.—I wish to ask you or any of your readers how to dress a beef hide with the hair on, also how to tan a beef hide.

—The first thing to be done is to clean the hair side thoroughly by washing in soap suds; then scrape off all the bits of flesh on the other side; then wash the flesh side thoroughly with a strong lye made from wood ashes, and follow that within thirty minutes with a wash of sperm oil, or the lye will eat through and loosen the hair. In a few hours, sponge off the mixed lye and oil, using as little water (warm) as will do the work well; then put the skin to soak twenty-four hours in a mixture composed of alum and salt in equal parts—say three pounds each for one beef skin; dissolve in water enough to cover the skin. Take out and hang up to drain. When well drained spread carefully over a board or pole, flesh side out, to dry; after hanging some time, and while yet damp, sprinkle every part on the flesh side with some pulverized alum and saltpeter, about half a pound each, and rub in well. Then double the skin, flesh side in, and hang in a dry place under cover a few days, changing position every day so as to get equal exposure for every part of the skin. A week of this curing process may not be too long. Clean off any bit of flesh remaining, and trim off all projecting points and rub the skin often and thoroughly to soften it. As to tanning the skin for leather, you would do better to sell the hide and buy what leather you want, for it will be cheaper.

Topeka Weather Report.

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

Abstract for the week ending Saturday, February 11, 1888:

Temperature.—Highest at 2 p. m., 42° on Monday the 6th; lowest at same hour, 6° on Thursday the 9th. Highest recorded during the week, 44° on Monday the 6th; lowest, zero on Friday the 10th. Heavy frost on morning of the 6th.

Rainfall.—Traces of rain on the 8th, 9th and 10th.

Abstract for the week ending Saturday, February 4, 1888:

Temperature.—Highest at 2 p. m., 57° Tuesday, January 31; lowest at same hour, 37° on Saturday, February 4. Highest recorded during the week, 58° on January 31; lowest, 28° on same day.

Rainfall.—Rain fell on the 1st and 3d days of February; total for the week, 68-100 of an inch.

The Home Circle.

Better Than the Miser's Gold.

Better than gold in the miser's grasp;
Better than gold in a mean man's clasp;
Better than gold which the rich man hoards;
Better than idle gold affords—
Is charity with open hand
Extending aid throughout the land.
Ah! better than the miser's gold
Is charity—a thousand fold.

Better than gold is the word of cheer
That drives from the face of grief a tear;
Better than gold is a kindly deed
To a fellow man in the hour of need;
Better than gold in this world of strife
Is a smiling face and a cheerful life.
Ah! words of cheer are a wealth untold
And better far than the miser's gold.

Better than gold is the wealth we reap
From knowledge broad, immortal, deep;
Better than gold is a cultured mien
Adorning life from a source unseen;
Better than gold and more refined—
Is wisdom dwelling within the mind.
Ah! knowledge deep is a wealth untold
And better far than the miser's gold.

A conscience clear is better than gold
And the joy it yields can not be told;
To the meek it falls as a frequent lot.
It is oftener found in the poor man's cot
Than in the home of the rich and great,
Or in the halls of high estate.
Ah! a conscience clear is a joy untold
And better far than the miser's gold.

Better than praise and better than gold,
And better than rank by a thousand fold,
Is the bloom of health with a mind at rest,
And peace at home as a loving guest.
To have a heart that is warm within,
To live a life unstained by sin,
To dare the right with a courage bold,
Is better than hoarding piles of gold.

—*Virgil A. Pinkley.*

In all my wanderings round this world of care,
In all my griefs—and God has given my share—
I still had hopes, my latest hours to crown,
Amidst these humble bowers to lay me down;
To husband out life's taper at the close,
And keep the flame from wasting, by repose;
I still had hope, for pride attends us still,
Amidst the swains to show my book-learned skill;
Around my fire an evening group to draw,
And tell of all I felt and all I saw;
And as the hare, whom hounds and horns pursue,
Pants to the place from whence at first she flew,
I still had hopes, my long vexations past,
Here to return, and die at home at last.

—*Oliver Goldsmith.*

The pleasing poison
The visage quite transforms of him that drinks,
And the inglorious likeness of a beast
Fixes instead, unmoulding reason's mintage
Charactered in the face. —*Milton.*

MENTAL HYGIENE.

Essay read before the Farmers' Institute at Mound City, Linn county, Kas., January 19, 1888, by Emma W. Morse.

On every hand we find directions to housekeepers for the observance of those hygienic laws which tend to lighten the burdens of sickness and lessen the doctor's bills. We are told again, again, of the need of thorough ventilation; that currents of pure air should carry from our sleeping rooms all possibility of disease germs; we are told that typhoid fevers, diphtheria, and kindred troubles, though past the skill of the physician to cure when once contracted, are quite under our control if only we use the ounce of prevention. Of all this we acknowledge the usefulness, and accept with gratitude every suggestion which helps in securing health in our home life. How best this end may be attained is subject for earnest thought and study, for ever watchful care and attention.

But a subject the study of which is equally as necessary to the symmetrical development of family life, to the growth of young minds, to the healthful upbuilding of those more mature, is that of mental hygiene. The chambers of the mind should be swept by a current of thought from the busy world beyond the farm, leaving no nook or corner where the miasm of ancient superstition or discontent may find lodgement. The disease germs of monotony and care may be so guarded against by healthful counteracting influences as to render them comparatively harmless.

Necessarily the life of the farmer's family is isolated; neighbors are far apart, and all are busy with the work that must be done. Far from the channels of trade and commerce, where the currents of thought and work are strong and deep, and none can choose but share in that life-giving interest in work and workers which makes the whole world kin. What provision is made for their keeping abreast with the column of the year's events? How are they prepared to find a substitute for the daily contact with others which city or village life affords? In far too many instances the answers would be, "Nothing is done for them." They organize a kind of close corporation, leaving out the world at large as a factor, except in as far as the price of hogs or cattle is a matter of interest to them. Consider for a moment what would be the tendency of such a course.

Statistics in the older States (I have never seen any for Kansas on the subject) show a larger per cent. of farmers' wives in insane asylums in proportion to whole number than of any other occupation. May not this fact be a key with which to unlock the cause, also to evolve the remedy, that this may never be true of our own fair State? They who have made the subject a specialty, tell us it is not severe mental work, varied though constant study, that causes a breaking of mental power, but a long-continued and unbroken routine, when day after day the same faculties are used without change or rest. To how many farmers' wives the days come and go, each moment filled with work that must be done; it may not be postponed or omitted. It is useless to say to this woman—"You must take time to rest—you ought to sleep an hour each day," or—"It is absolutely necessary that every mother should set apart an hour each day, when she must be absolutely free from interruption and devote the time to her own improvement." The theorizer who could suggest such a thing was never acquainted with a family of children anywhere, and least of all on a farm. The calls for mother's help are not regulated by a program, but come as the need arises. In laying particular stress on the need of change for farmers' wives, I would not be understood as claiming that the heaviest burdens fall upon her shoulders; but because in the nature of things she must have less contact with the outside world, and her own work and care may gradually fill her range of vision, and become the beginning and end of effort. In effect, it is as living in a house without ventilation, and in the lapse of years the mind is smothered. It is difficult to over-estimate the ill effects of narrowing one's whole thought to the doing of one thing. An extreme case in point is of the men and boys who sharpen pegs for shoes in the large factories of Massachusetts. There is the statement that apparently bright boys, who follow this occupation for years, grow up into half-demented men, their mental powers wasted away for lack of use. The monotonous occupation, furnishing no occasion for thought or effort, allows them to become almost a piece of automatic machinery.

Taking these extremes as showing the result of lack of diversity in mental exercise, one can trace the various degrees of hygienic conditions enjoyed by those with whom we come in contact. In the case of the pegsharpeners there was ample time for thought and study, out of work hours, to obviate the effect of the monotonous employment, but they had never learned to think, nor that the mind's work could make up the variety the occupation lacked. In the case of the family on the farm the danger is not from inaction, but from over-work of one set of faculties, thereby precluding the possibility of sufficient exercise of others to produce a symmetrical mental growth. We are prone to let the prosaic, every-day necessity smother out imagination and all thought or care for noble deeds in the world beyond our own horizon. In the family where the farmer brings home a breath from the outside world, as his various duties call him from home, who discusses topics of public interest with wife and children, interesting them in what interests himself; when the farmer's wife works cheerfully, meeting disappointments without discouragement, making the best of what cannot be helped, giving a daily object lesson to the children in the faithful performance of duty, the foundation for hygienic mental growth is laid.

Next comes the selection of food for the minds and hearts of our children, as well as material for the more mature members of the family. In this much the same rules apply as in selecting food for the body. The highly seasoned and stimulating viands served up by the *New York Weekly, Saturday Night*, "Life of the James Boys," and kindred publications, should be strenuously avoided; they are more harmful to the mind than diphtheric germs or the deadly typhus to the body. Furnish instead selections from the best authors. Often the characters in books they read come to be their constant companions, as real in their influence for weal or woe as their daily associates and playmates. A weekly paper furnishing not only stories of true literary merit, but giving a resume of the political events of the week, both at home and abroad, besides travels and adventures, scientific treatises on familiar subjects, etc., are of inestimable value. If in addition they can have a magazine of real merit they have opened to them social and educational advantages far beyond those furnished remote from busy centers of trade. They bring vividly to the young mind accounts of great works of charity and reform, of achievements in engineering skill that necessarily take the mind far beyond the home, and by giving an account of the toil, the years of study, of patient effort required for their completion, teach a lesson of self-control and industry they will be long forgetting. And through and with it all teach the value of work as a means of happiness, and of change of work as a means of rest, and that idleness is neither necessary or recreative.

In furnishing mental food for the elders of the family, another quality should be added—one of change and rest, subjects as far as possible removed from the cares with which we are laden and the work that fills our hands. To illustrate its use for rest: The mother comes from her ironing table with well-filled basket intent on mending and putting away the week's ironing, but too weary to begin, "Canterbury Cathedral" looks out invitingly from a half-open magazine, and what so refreshing as to leave this weary world for a time and wander through its perfectly cultivated grounds, to look out over the peaceful scene of pasture, field and placid water, to pass through wave and choir, arcade and aisle, now and again coming onto views of the exterior, beautifully clear in execution and with all such a description that she sees with the tourist's eyes as she thinks her thoughts. The sense of weariness is gone, the consciousness of unfinished work is lost. When the end is reached she comes back to the work with a feeling of rest not attributable merely to a cessation from toil, but a rest that goes with her through days of heat and weariness. Like a breeze in summer, it has taken from her mental atmosphere the malaria of monotony, akin in its effects on the mind to ague on the body.

Farmers and farmers' wives, see to it that in some form you find this change and rest. Spare a few minutes from your busy days for the health of the mind as well as that of the body.

Training Schools for Nurses.

In your issue of November 17, 1887, "A Reader," referring to "trained nurses," also refers to my having recommended that occupation to her, etc. Now, as I have had several letters since the November issue, inquiring about the profession, I take this means of answering, that the many may have the benefit with the least effort and demand of my time, which, however, I give gladly.

First—There is a good school at St. Louis, an extra good one at Chicago, Philadelphia, Boston, and New York city—Bellevue Hospital.

By addressing "Training School for Nurses, St. Louis, Mo.," or "Training School for Nurses at Cook Co. Hospital, Chicago, Ill.," or "Training School for Nurses, New England Hospital for Women and Children, Boston, Mass.," or the same address with Philadelphia, Pa., instead of Boston, Mass., or with Bellevue Hospital, New York city, stating that a blank for application is desired sent to your address, (stating fully and clearly the name, P. O., etc), a blank will be sent. The applicant must fill this out carefully, and return to the superintendent of the school which sent it. When action on said application is had the applicant will receive notice, stating whether further considered or not. Then further proceedings are governed accordingly.

In all schools the applicant serves a month, at least, as probationer, at the end of which time, if retained, she enters on duty, for which she receives a stipulated sum (from $5 to $6) per month, board, room, and washing (a stipulated number of pieces) for her services. After six months serving the moneyed amount is raised to $8 or $10 per month. It is not considered pay for services, as the instruction given is ample pay, but the sum covers the cost of caps, aprons and books necessary for the work. All retained applicants must sign an agreement to remain during the required time for graduation in the course. In no school is less than two years, and some three years term required. None need apply who cannot pass an examination equal to a first-class high school's requirements. A diploma from such a school, or teacher's certificate equal to it, stands instead of an examination on entering. Good health, enduring constitution, and adaptability to the work are positively required. All other requirements would fail to secure a course if adaptability was wanting.

A word to those thus seeking the profession. It is a noble calling; just such an one as every mother should possess, and one, too, which stands as a barrier to the wolf's entering any woman's door, whether she be married or single; therefore not to be ignored by those looking for moneyed pay in this busy, needing life of ours.

RUTH M. WOOD, M. D.,
Director of Industrial Home, 44 S. 5th E street, Salt Lake City, Utah Territory.

Making Bread in Winter.

In answer to Mrs. Seymour's cry—"Where, oh! where, are all the writers for the KANSAS FARMER?" I will say that one is still among the living and a reader of the KANSAS FARMER. I every week express a wish that farmers' wives would write more frequently. "Phœbe Parmalee" does well. Thanks for her suggestions. "Mystic's" last contribution was splendid. Mrs. Stone's vision was very enjoyable. Please write often.

Every woman has her own way of making bread. I have tried many different ways and have at last found what I think is the best way for winter. Dip into your bread-pan what you will require for the amount you wish to bake; set in the oven to warm while you are preparing breakfast; then add one tablespoonful of salt, one quart of water, one cup of good potato yeast, using only enough flour in the middle of pan to make a thin batter; cover with flour and set in a warm place to rise. When risen add another quart of water, mix in all the flour, making one large loaf; let rise again; then mix into six loaves. When risen again, bake. When done take from the oven, sprinkle with cold water, then roll up in bread-cloths. NORMA.

Fashion Notes.

Badger is a fine and deservedly popular trimming fur.

Astrachan and Persian lamb are coming in favor again.

Stoles and capes of fur are almost as fashionable as boas.

Beaver is the favorite fur for young ladies' shoulder capes.

An oxidized silver scarf-pin, in the form of a miniature ear of corn, is an appetizing novelty.

A unique brooch is a small gold-fish, with diamond eyes, suspended from a bar pin by a gold hook.

An odd scarf-pin is in the form of a small gold chair, with an oxidized silver parrot perched upon the back.

Gold brocaded ribbon, which is almost entirely metal, is used by English milliners as a trimming for bonnets and hats.

The use of lace for neck and sleeve wear is increasing. Instead of the smooth bands of silk mull or canvas, which have so long been popular, the dressmakers are sending home dresses with narrow frills of creamy lace plaited thickly in at the wrists and neck.

Turbans in graceful shapes are exceedingly popular this season. There are a variety of styles and many becoming models. Turbans are appropriately worn on nearly every occasion, the simple or the elaborate style of their garniture deciding the question of their appropriateness for visiting, promenade, or travelling wear.

In spite of the great popularity of broadcloth long coats and pelisses, jackets still hold their sway, and appear in almost endless variety. They are mostly close-fitting, though the Boulanger-Gladstone and Paris blouse can be had in many kinds of materials. The military style of decoration is the most popular for plain tight-fitting jackets.

There is a steady addition to winter headwear, and although there appear many new shapes, few of the popular autumn models are abandoned. On the one hand are small toques, turbans, derby shapes, hats in military and masonic styles, and on the other are immense halos of fur, felt and velvet, surrounding the head entirely, like an aureole, or short at the back and projecting in front, like the hood of a cabriolet.

The Young Folks.

Roguish Willie.

BY PHŒBE PARMALEE.

Roguish Willie goes to school,
Studies some, but more he plays,
Sees some fun in every thing—
All save work. So pass his days.

Bringing wood is "awful hard."
Building towers with heavy stones
Easier far—it's only play;
One brings smiles, the other frowns.

Making faces, his delight.
Back behind his sober book
Teacher cannot see his pranks.
His seems such a quiet nook!

Soon there comes a smothered sound—
Laughter only half repressed.
"Willie makes us laugh," they say.
So the culprit stands confessed.

Standing on the floor is hard,
But we often find him there.
Strange, when work afflicts him so,
He should thus endure such care!

On the small offending boy
Papa looks with sternness down.
"If you have to stand to-day
On the floor"—that dreadful frown

Tells the rest. The boy went out,
Sobered once—till out of sight.
Would he think and bring with him
Pleasing records home at night?

Anxiously we watch him come.
Lagging steps and downcast face
Tell us plainly how our boy
Has been vanquished in the race.

But a gleam of mischief shines
From the blue of Willie's eye
When we sadly say to him,
"Were you punished? Tell me why."

"Yes, I did stand on the floor,
Truly did—I did indeed!
I don't want to tell papa—
I had to stand up there to read."

THE FISHERIES DISPUTE.

So much has been said of late in the newspapers concerning the dispute between our country and Great Britian relative to the "fisheries," that I am sure you will be glad to know what it is all about. Of course you know already that there are a great many people at and about Gloucester, on Cape Ann, who make their living by fishing. It really is an immense industry. A large number of vessels are owned there, which go out to "the banks" after cod and mackerel and halibut.

The "banks" are great tracts of shoal water where the fish chiefly congregate. The largest of these banks is the Grand Bank, which lies off the southern coast of Newfoundland. The Western Bank is off the Nova Scotia coast, while Jeffreys Bank and Georges Bank are off the coast of New England.

Fishing on these banks is dangerous business, and many brave men lose their lives every winter in this hazardous occupation. The vessels are owned on shore, but sometimes the captain owns a share in the vessel he commands. The sailors are paid a proportional part of the profits of the voyage.

So much, in brief, for the fishing business itself. Now about the troubles. As I have said, the largest fishing territory is off the coast of the British Provinces. Naturally our fishermen wish to go to those banks. When peace was declared between our country and Great Britain, after the war of the Revolution, a treaty was made by which it was agreed that our fishermen should continue to enjoy the right to take fish on the banks of Newfoundland and along the Canadian coast; but they were not allowed to go ashore to dry fish, except at places where no people live, without the permission of the inhabitants.

In the year 1818 another treaty was made; by this the American fishermen were allowed to take fish on the southern coast of Newfoundland, from Cape Ray to the Ramean Islands, and on the western and northern coast from Cape Ray to the Quirpon Islands; also on all the shores of the Magdalen Islands and on the coasts and bays from Mount Joly, on the southern coast of Labrador, through the Straits of Belle Isle and northwardly along the coast so far as they cared to go. But in all other parts of the Canadian coast it was agreed that our vessels should not fish within three miles of the shore, and that they should not enter Canadian ports except for shelter in bad weather, to repair damages, to buy wood or to get water. But our fishermen were allowed to go on shore to dry fish on the southern coasts of Newfoundland or on the coast of Labrador, where there is no settlement.

Again, in 1871, another treaty was made; by this our fishermen obtained greater privileges, but we had to pay for them. This is known as the "Treaty of Washington." By it our fishermen obtained the right to fish wherever they chose; and, in return, Canadian fishermen were given the right to fish in American waters; also, the fish of the Canadians was allowed to be sold in our markets without paying any duty to the government. But the British thought that this was not enough to pay them for the privileges granted to American fishermen, and so it was agreed that the United States should pay a sum of money, to be fixed by a commission. One of these commissioners was chosen by the United States, another by Great Britain and the third by Austria. They met in Halifax in 1877, and made an award of five and a half million dollars to Great Britain.

This amount our government paid, but with reluctance, and a little later occurred what is known as "The Fortune Bay affair." An American fishing vessel went into Fortune Bay, on the southern coast of Newfoundland, to catch herring for bait. The crew was attacked by Newfoundland men and driven off and their nets destroyed. For this outrage Great Britain paid our government $75,000.

Then in 1885, the "Washington treaty" was broken up, or "abrogated," by our government, and the treaty of 1818 of course came into force again. The British were loath to give up the "Treaty of Washington," because it gave them liberty to bring salt fish into our ports free of duty, and they are now trying to force us to make a new treaty which will admit their salt fish free, in competition with the fish of our American fishermen.

To bring this about it is claimed that they are vexing and troubling our fishermen in many ways; that they have armed vessels cruising about, and if they find one of our vessels within three miles of the shore, even if the crew are not engaged in fishing, they seize the vessel and give the owners much trouble; that sometimes they detain the vessel for a long time, and then only let it go by paying a large fine; that if a vessel goes into a Canadian port to get wood, or water, or for shelter (which things are allowed by the treaty) they seize or detain her, and make a great deal of trouble; that they will not allow our vessels to enter their ports and send fish home by railroad, so they can go out for another catch.

The British claim that "three miles from the coast" means three miles from the furthest point on the coast; that is, they say it means a line drawn three miles off the headlands. Our fishermen say that it means a line drawn along the shape of the coast.

So there the dispute now stands. Some time ago Congress gave the President power to retaliate by denying Canadian vessels the privileges of our ports. But this he has not done. He has, however, appointed William H. Putnam, of Portland, Me., and James B Angell, of Ann Arbor, Mich., to meet British Commissioners and settle the question, and these English Commissioners are now in this country.—*Wide Awake.*

In the large plains called "Llandees," in southwest France, the people use stilts as a matter of course. These plains are generally flooded, though not to a sufficient depth to enable people to get about in boats. The stilts are not held in the hands, like those we are accustomed to see, but are firmly strapped to the side of the leg. The person wearing them carries a long pole to balance himself, and aid him in walking. This pole has usually a cross-piece at one end, so that, by putting it at a slant on the ground behind him, the person on stilts can sit down on it and rest. It is a common occurrence in that country to see men and women sitting and knitting in this exalted position, while the sheep they are tending wander about the plain. They wear their stilts all day long, putting them on when they go out in the morning, and taking them off only when they return home at night.

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Govenor Martin names April 4, as Arbor Day. Let every citizen of Kansas prepare for setting out at least one tree or shrub on that day.

A friend in Harper county, renewing his subscription, writes: "The ground has never been in as good condition at this time of the year for a crop since I have been here, four years. Wheat looks fine."

We thank our correspondents heartily for the interest they take in the paper as shown by the letters they write, and we must ask their indulgence, for we cannot find room in this issue for half of them without disarranging our plans. But every one will get into print, at least part of it, if it takes all summer.

The cotton seed lard-oil contest can be settled justly on one basis only—that of letting every product stand on its own merits. The law should require that all articles offered for sale shall have whatever protection its own name affords. Let lard be pure lard; let cotton seed oil be that and nothing else. Don't mix them without saying so.

There is a strong effort being made in the direction of cheaper postage on seeds sent through the mails, and the use of fractional paper currency for use in transmitting small amounts of money by letter. Both these objects are good, and ought to be attained. Congress ought to respond favorably to what is a very general demand as to both of these subjects.

A new idea is suggested by one of our advertisers out in Harper county. "My advertisement in the FARMER has brought so many orders for seed corn that it will be as much or more than I can do to fill them if they keep on. They come from No Man's Land and Colorado, just the same as from Kansas. I think the next time it gets so dry in Kansas I will just advertise in the KANSAS FARMER for rain, and I think it will come."

KEEP THE TARIFF ON WOOL.

The incubation of the tariff reform bill is long and tedious, but the indications are, that when it is introduced to a waiting world, it will propose to put wool on the free list. It may as well be understood in the beginning that to expose one million American farmers to the unfavorable competition of wool-growers in other countries who can produce wool at one-half what our farmers regard as fair prices, is a dangerous proceeding. Removing the duties from foreign wools of all kinds will ruin the wool industry in this country and place the American wool market in the power of foreigners. Sheep have fallen off six million since the act of 1883 took effect, and the reduction of duty was only about three cents a pound; still we have forty-four million sheep and from which we clipped 265,000,000 pounds of wool last summer. What do those figures represent in dollars? The President says American flocks are held chiefly by small farmers—twenty-five to fifty on a farm. Granted. What follows? Say the average is forty; that shows a total of one million one hundred thousand farmers who own sheep—one farmer in four taking the country over. The aggregate value of the sheep is $100,000,000, and the value of our clip is $75,000,000. To these add the value of lands devoted to sheep pastures, together with buildings and other conveniences, and we have a grand total of at least $500,000,0000. That is $500 apiece for a million farmers. And then, consider the effect of the market which this vast interest has builded. In 1880, there were 2,689 woolen factories, with a capital of $159,091,869, in the United States; they employed 161,557 persons who represented twice as many other persons, and who received as wages during the year $47,389,087, and they turned out a product for the year valued at $267,252,913. Among our leading manufacturing interests wool stands fourth in value of products, the three leading it being (1) flour and grist mills, (2) slaughter and meat-packing, (3) iron and steel manufacturers. It is not safe to trifle with such an interest.

If the American people are ready to adopt free trade all round, the farmers will bear their share of the direct taxation which must follow; but as long as we retain tariff laws, farmers want their full share of whatever benefits come from such laws. And further, whenever it is determined to throw the farmer on his own resources in an open field with ryots and fellahs for competitors, he can easily muster votes enough to abolish all tariff laws and change our custom houses into warerooms for importers.

If protection is good for anybody it is good for the farmer; if not, he wants none of it. If his products are to be thrown into the world's markets in free competition with everybody, let the mechanic, the laborer, the manufacturer, be treated in like manner. Let justice be done. Farmers are getting to be very much in earnest about these things, and it will be well for lawmakers to listen when the country speaks. They do not want free wool. Not one farmer in ten would vote for it after a moment's reflection. They would have duties higher rather than lower, and the country would be benefited. Under the act of 1867, our sheep increased in numbers, the wool increased in quality, the clip increased in weight, the price of wool decreased to the consumer, and the wool-grower made money. Everybody understands that. Then keep the tariff on wool.

The February statistical report of the department of agriculture relates to numbers and values of farm animals. There is an increase in horses, mules and cattle and a decrease in sheep and swine. The largest rate of increase is in horses—5 per cent—and it is general throughout the country, though largest west of the Mississippi. The aggregate exceeds 13,000,000. The increase in mules averages .3½ per cent. The increase in cattle is 2½. It makes the aggregate over 49,000,000. The increase is nearly as large in milch cows as in other cattle. In sheep the decline appears to be between 2 and 3 per cent., the aggregate of flocks being about 43,500,000. There is a smaller decline in numbers of swine, less than 1 per cent., leaving the aggregate over 44,000,000. The aggregate value of farm animals is $8,000,000 more than a yeara go.

USURY IS A DESTROYER.

Moneyed men are intrenched behind influences which money can secure; they are therefore always prepared to resist demands of borrowers for lower rates of interest. There is a reasonable interest rate; all beyond that is usury, and men cannot, in legitimate business, afford to pay usurious rates any more safely than they can risk large drafts of blood from their bodies. Usury will destroy the best business.

It seems presumptuous in small men to suggest that interest, as an economic problem, is not well taught by economists nor understood by the people. Why should it be any more difficult in a given community to hire a hundred dollars than it is to hire a horse worth that much? Why should the interest on ten thousand dollars which are idle be equal to or more than the income of a farm worth that much—every acre of the land being worked and pushed to its utmost capacity? Why should a farmer be required to pay two dollars for the use of a hundred dollars a month when he can at and for the same time hire a horse worth that much for ten dollars and the horse will do for him work that it would require ten men to perform? And even at that rate, the horse would earn his value in less than a year. Why is it always difficult to borrow money from professional money-lenders? Why should there be in the country less than one dollar in money for every fifty dollars worth of property? And why should that part of the money which is available to borrowers be limited to a few persons in every community? If a man owns valuable property, why should he have trouble in borrowing a little money? Briefly, why do we not have money enough to represent our exchangeable property, so that men could obtain money as readily as they can obtain other property by the use of money?

There must be a change in this respect or trouble will come upon us. Rich men can obtain the use of money at low rates of interest and can afford it; but poor men are charged according to their poverty; the poorer they are, the more in need and the less able to pay, the higher rates are forced upon them. It is equivalent to drawing the poor fellows' blood out of them at every vein.

The remedy lies not in abusing men who are fortunate enough to have money—(they are not the cause of this state of things)—but in devising a plan by which the people in their own right, may as to themselves, have some convenient medium of exchange for their own use on payment of a sum sufficient to cover expenses. We use public roads and highways to transport our property, why should we not use public money in our exchanges of property or ownership in it? When a citizen wants to pay for the carrying of a letter or a small package of merchandise, he attaches a government stamp to it and it goes. The stamp represents the actual cost of the labor to be performed, without any profit. The people must have a monetary system as simple as that; for, if we are to continue the present system, in less than fifty years 25 per cent. of American farmers will be renters hopelessly in debt.

WHY ALL THIS DELAY?

The President, in his message, referred to only one subject, and, as he said, because of its overshadowing importance—reduction of taxation; among the first resolutions offered in Congress was one directing an investigation of trusts; following that was another directing an investigation of the Reading railroad strike. These are matters in which all the people are greatly interested, and they ought to be attended to promptly with energy and earnestness, but the facts are that, although the session is more than two months advanced, and although the members of the House of Representatives were elected more than a year ago, nothing has been done toward even presenting a plan of tariff revision, not a step has been taken toward exposing the operation of trusts, and the Reading strike committee has just begun its work.

Why all this delay? Why do men in Congress thus waste the opportunities of the people? It must be because a majority of them have no heart in the work. If there were half a dozen leading men in the House with the courage of Grover Cleveland there would have been a tariff revision bill in a month ago, the infamy of some of the trusts would have been exposed by this time, and the poor fellows in the coal mines would have spoken their wants to the world. Let the people rise up and cry, Shame!

SILLY EDITORS.

Men differ in temperament as well as in opinion, and editors are like other men in that respect. But there is really no good reason why men should be silly, and this applies to editors as well as to other persons. A friend sends us a clipping from the Fort Scott Weekly *Monitor*, in which the writer makes up a falsehood very foolishly. He pretends to state what reply was made by the editor of the KANSAS FARMER to a correspondent who inquired about good methods of raising wheat. The intent of the writer, we suppose from reading his stuff, was to convey the impression that the editor of this paper is ignorant in the practical work of a farm.

This is to say that every man connected with the management of the KANSAS FARMER is a practical farmer. One of them is now living and working on his farm; the others are not now engaged in farming, but they all worked many years on farms. The editor spent considerably more than one-half of his life on a farm, and has done all kinds of farm work.

OUR MARCH REPORTS.

Blanks have been sent out to our special correspondents in all the counties to guide them in making returns for our March reports. Please be careful and accurate. Learn all you can in your county about the matters for which we inquire. Get at the facts, boil them down, so that when all are printed in one issue of the paper, the world may see Kansas in a nut shell. We expect to print an immense edition, and we want it to be trustworthy.

Chester Thomas, Jr., having resigned the office of Secretary of the State Fair, Mr. E. G. Moon, of Shawnee county, is appointed to take the place.

ON THE OTHER FOOT.

Farmers have not forgotten what a hard fight they had to get the oleomargarine law. The spirit and object of that law is to protect the people against fraud in the manufacture and sale of adulterated articles in the place of pure butter made from cow's milk. Some of the persons who opposed the bill were among the most wealthy butchers of the country, notably the Armours. They fought the bill from beginning to end. They had no objection to using lard in butter and milk and selling the product as "pure creamery butter." They were willing to steal the name of an article universally esteemed to dress their bastard in.

But now, when it is proposed by friends of honest dealing to apply the same principle to lard, so as to prevent persons from mixing cotton and oil and other ingredients with it and selling the compound as pure lard, these same butchers, say, "yes that is right; let every article stand on its merits." Lying before us as this is written, is a letter from Thomas Armour, as President of the Butchers' National Protective Association, addressed to a Grange in this county. Mr. Armour says:

The great food product known as lard has become so adulterated and compounded that the public and consumer can not detect the difference between pure lard and the adulterated, in fact these compounds almost deceive an expert. Some of these compounds are decidedly injurious to the health of the consumers, owing to the articles used being of a deleterious nature. This "refined lard," or under whatever name it may be sold, is an imposition on the public and acts detrimentally to the interest of the producer and farmer, and also tends to lower this great food product of the American people in the estimation of the large purchasers of Europe. With a desire to reform this abuse, our association has presented a bill to Congress, praying for legislation and asking that all compounded lard be branded and known as "lardine," whereby the consumer who asks for pure lard is going to be able to know that he is gets pure lard, by the brand on the package, and that he is going to get it at a fair market price.

In the name of honesty in trade, the KANSAS FARMER thanks Mr. Armour, and through him the Butchers' National Protective Association for their interest in favor of one good law in the common interest. It is quite as proper that lard should be kept pure as it is that butter should be kept pure.

The Kansas Experiment Station.

The KANSAS FARMER, some years ago, began the agitation, in this State, for an agricultural experiment station in connection with the college. The editor personally went to committees of the legislature and urged appropriations for that purpose. But nothing was done except to authorize Prof. Shelton to do what he could within the limit of what would amount to little more than the pay of a common laboring man one year. But Congress came to the rescue, and we believe the present efficient commissioner of agriculture is largely responsible for this excellent legislation. The experiment station bill was passed late in the session last March, but there was some hitch about the wording of the act, and the Treasury Department asked a correction which was made a few days ago.

The scope of the law is expressed in the second section, as follows:

Sec. 2. That it shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaption and value of grasses and forage plants; the composition and digestibility of different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable having due regard to the varying conditions and needs of the respective States and Territories.

The law directs an annual appropriation of $15,000 to each college organized under the act of July 2, 1862. The first year's appropriation is for the year ending June 30, 1888. Our legislature at the last session accepted the donation and placed it in charge of the Board of Regents who have already begun the work of arranging for experiments in the interest of Kansas agriculture.

It is needless to say that the KANSAS FARMER regards this matter as one of very great importance to the farming interests of the State. The college faculty are in hearty sympathy with the spirit of the law. President Fairchild, in the *Industrialist* says: "Of course, in many respects the work will be only an extension of what this college has been doing for years past. The general equipment of the departments of agriculture and horticulture have leaned toward experiments strongly for many years. A very fine barn especially designed for this purpose was built two years since. The gardens orchards, green-house, and grounds have been planned as much for experiment as for illustration. The chemical labratory, too, has been a means of research as well as of manipulation. So, to some extent, the departments of botany and household economy have sought to bring out new truth, as well as to teach and illustrate the old truths. Now, however, plans must be laid for more extensive work in systematic courses of investigation to be continued through a series of years. Exactly what shall be the first tasks, it is not yet time to state; but they will certainly be those most nearly touching the peculiar conditions of farming, forestry, and horticulture in this State."

The Press.

We are in receipt of *The Press*, a new daily and weekly paper recently started in New York, Republican in politics and devoted specially to the protection side of the tariff question. The daily is a seven column folio (four-page) paper, subscription price $4 a year; the weekly is twice that size and sold at $1 a year. Both papers are well printed, neat and clean looking, full of fresh news, comments and miscellany, ably edited. Frank Hatton and Robert P. Porter are the editors. The daily *Press* is better for busy people than the larger and more costly papers of New York city, for it contains all the news with brief comments and editorials—all that the average man wants until he has time to rest and read. To such of our readers as want a paper of that character we can recommend *The Press*, because we know the men who edit it. The weekly is more elaborately made up, containing news and clean miscellaneous matter, and is twice the size of the daily. Published by the New York Press company, 26 and 28 North William street, New York.

Dr. Moffatt, of Topeka, has patented an invention to cultivate listed corn. It consists of a triangle to be attached to the stock of an ordinary iron double-shovel plow, with a narrow shovel working down in the furrow to loosen the ground near the corn row and to steady the machine, a larger shovel higher to cut weeds which peep out at the top of the hard ground, and with harrow teeth on the hindmost bar of the triangle to operate on the ridge while the front bar does its work in leveling ahead. There are two of the triangles, one for each of the two plows which are attached to a walking cultivator, so that a man, walking on the left ridge, can work one row at a time. A fender is attached to each machine to prevent clods from falling on the corn. These can be removed quickly in case the plowman prefers a trough. The contrivance is simple, easily attached to the plow stalks, and seem to be well calculated for the work intended. Our readers will probably hear from the Doctor further, as soon as he begins to make the machines for field work, and that he expects to do soon.

The Business Situation.

As to the state of trade, R. G. Dun & Co. say: "The effects of the strike in the coal regions increase from day to day, but are not as great as the depression due to shrinkage in demand. Of the latter, part is attributable to tariff uncertainties and part to the excess of railroad building in the West, and the consequent war of rates. Including 50,000 tons deferred from last year, contracts for steel rails so far reach about 500,000 tons, without any lifting of the price, $31.50 at mill. Pig iron is weaker at Pittsburg, but stiff at the east, for the better grades, on account of their scarcity. In manufactured iron a slackened demand still causes weakness. Nearly all the markets are lower—stocks about 50 cents per share for the week, wheat about 1 cent per bushel, corn ¾ cent, oats ½ cent, coffee ¼ cent per pound, and sugar, both refined and crushed, ⅛. Hogs 10 cents per 100 pounds and tin ¼ cent per pound. Cotton has been held steady by the report of large consumption abroad. The dry goods trade continues good for cotton goods, which are steady in price, and slightly improved for woolens. In groceries there has been some improvement in tone and in distribution. The tea trade shows more activeness and hopefulness, but the demand for butter and cheese is hardly satisfactory, and meats are very dull and weak."

Horace Has the Floor.

EDITOR KANSAS FARMER:—In the last issue of the KANSAS FARMER I find the following from Mr. B. F. Smith, horticulturist, of Lawrence:

"Your correspondent or representative (Horace) seems to have got my report on small fruit considerably mixed up. See January 19, page 12. 'In the discussion that ensued the committee properly places the Sucker State strawberry at the head of the list.' In my report I never mentioned the Sucker State, and I do not recommend it for a profitable market berry."

By reference to the issue of January 19, page 12, it will be found that I am not "mixed up" in the least concerning his report on "Small Fruits." I simply gave the discussion *verbatim*. The part in question reads:

A discussion of the report ensued. L. A. Simmons, of Wellington, said: I fully endorse the report and regard it a valuable paper. The committee properly places the Sucker State at the head of a list of strawberries recommended for planting.

Now, then, if the members in their remarks made statements not in accord with the report, why it's their error, not mine. Had not the remark been made it would not have appeared in the report. HORACE.

Farmers and the Tariff.

The New York *Tribune* sent out letters to all the granges, farmers' clubs, and agricultural societies of the States, and to a great many individual farmers, inclosing in the letters schedules of tariff duties, and asking for opinions of the persons or associations addressed on the subject presented. A great "mass of replies" were received, and a committee of competent men, with Hon. Warner Miller, as chairman, was appointed to examine them and condense their substance.

The report of the committee shows an almost unanimous expression in favor of putting foreign sugar on the free list, paying bounty on the home product, re-enacting the wool tariff of 1867, and removing the excise tax on tobacco.

Cheap Sugar-Making.

A friend at Marysville writes us concerning some suggestions made by Senator Plumb in relation to sugar-making, and which were published, or referred to in the KANSAS FARMER of December 29, last.

We have referred our correspondent's letter to Senator Plumb with request for report.

Book Notices.

ALBUM VERSES — A little book containing seven hundred verses for use in albums and the like. Compiled by J. S. Ogilvie, 31 Rose street, New York. Price 15 cents.

DAKOTA.—Resources of Dakota is the title of a pamphlet prepared under authority of the Territorial Legislature by the Department of Immigration. Address Hon. P. F. McClure, Pierre, Dakota.

MANSILL'S ALMANAC.—This is a brief discussion of weather problems, as well as an almanac for 1888. Price 25 cents. Sold by news dealers, or by its author, R. Mansill, Rock Island, Ill.

ALLIANCE.—Proceedings of the National Farmers' Alliance, at Minneapolis, Minn., October, 1887. Printed for free distribution among farmers of the West and South. Address J. Burrows, President, Filley, Gage Co., Nebraska.

FORUM.—The February number of this excellent magazine contains a great deal of interestidg matter, political, literary and religious. Subscription $5 a year, 50 cents a single number. Address *Forum*, 97 Fifth avenue, New York.

THE GRANGE.—Journal of proceedings of the National Grange of the Patrons of Husbandry at Lansing, Mich., November, 1887, a pamplet of 256 pages. We do not know whether copies may be had on application. The Secretary is John Trimble, Washington, D. C.

ESTHER THE GENTILE.—This is an interesting and instructive anti-Mormon story, intended to impress the reader's mind in a rational way with the great wrong of polygamy as it is practiced among the Mormons of the United States. The authoress, Mrs. Mary W. Hudson, wife of Hon. J. K. Hudson, once editor of the KANSAS FARMER, is an easy, graceful writer, attempting no great pictures of fancy, but representing her own personal virtues in a steady, faithful doing of the work in hand. Nothing coming from Mrs. Hudson's pen could be bad; fountains do not send forth both sweet and bitter waters. Her name is a guaranty that the thoughts of the book are pure, and that what is there printed may be read with profit by everybody.

CATALOGUES.—We are daily in receipt of catalogues of advertisers. It costs but a cent to get any one of them, and they are all useful to persons who want to either purchase what they advertise or to study them. One good seed and plant catalogue in a farmer's house often prevents loss by mistakes in planting or culture. Here is a list of catalogues just received: Alneer Bros., flower and vegetable seeds, Rockford, Ill.; Samuel Wilson, flower, vegetable and field seeds—makes a specialty of new varieties of corn, oats, potatoes, etc., Mechanicsville, Bucks Co., Pa.; James J. H. Gregory, vegetable, flower and grain seed, Marblehead, Mass.; W. H. Smith, seeds and implements, 1,018 Market street, Philadelphia; Robert Buist, Jr., a very old seed house, 922 Market street, Philadelphia; W. Atlee Burpee & Co., garden, farm and flower seeds, Philadelphia. This catalogue is large and complete.

The formation of a great rubber trust is now a question of only a few days. By the new plan all the manufacturers of rubber goods who wish to join the trust will pool their own stock and turn it over to the central company in exchange for certified shares of the trust in proportionate values. Those concerns which can manufacture rubber goods at the lowest rates will be continued in operation, while others will shut down. These different factories kept in operation will make different grades of goods, with the result of making more goods with less labor and a much less cost. Instead of 8 and 9 per cent. profit as at present, the firms interested will then be able to realize over 15 per cent. profit annually. The combine involves a working capital of $50,000,000 and an annual trade of $100,000,000. Several thousand workmen will have to look for other employment.

Horticulture.

THE STATE HORTICULTURAL MEETING.

Special Correspondence Kansas Farmer.
(Continued from January 26.)

The seventh meeting of the session convened at 2 p. m., December 15, with Mr. Allen in the chair, and George C. Brackett, Secretary.

Hon. L. A. Simmons, of Wellington, occupied a short time in discussion of what he considered the fallacies of Prof. Hann's essay on "Soil Formation," read at the close of the forenoon meeting.

After this came the report of the committee on floriculture, by Robert Milliken, of Emporia.

The report of the committee on vegetable gardening, by E. J. Holman, of Leavenworth, followed.

The committee to whom was referred the Secretary's annual report made a favorable return, and on motion their report was adopted and the committee discharged.

Report of committee on nomenclature of fruits, by George C. Brackett, Secretary, was read.

By request the memorial of the American Forestry Congress was presented by the Secretary, and on motion it was referred to the following committee: G. J. Carpenter, of Fairbury, Nebraska, J. W. Byram, of Cedar Point, and J. E. White, of Kent, who after due examination recommended that the society support the memorial, which was adopted. Following this came the report of the committee on forestry, by Hon. M. Allen, of Hays City.

The official ruling of the General Land Department, at Washington, D. C., restoring the Osage orange tree to the list of trees admitted in proof of compliance with the requirements of the "Timber Culture Act" of Congress, was read by the Secretary.

An essay on evergreen-culture, by Wm. Cutter, Esq., of Junction City, was read by the Secretary.

J. A. Cleveland, of Madison: I have failed in every attempt to grow evergreens in my locality.

B. P. Hanan, of Arlington: The Black Austrian, Scotch pine, and red cedar succeed with me, while the Norway spruce, American and Siberian arbor-vitæ, balsam fir and hemlocks fail. The European and American larch begin to fail about the third year after planted. Of deciduous classes the hackberry succeeds. I have what is called the white ash, but which I believe to be the green ash, a much stronger, growing finely. I have white maple trees which are now thirty feet high and still making a rapid growth, Catalpa—western hardy—is not as strong a grower as the ash nor as desirable. The Osage orange succeeds as well as ash.

M. Allen, of Hays City: I have the native green ash, which outgrows the white ash. Let us beware of the Dutch foreigners. Their methods will not succeed in Kansas. The Pacific Railway Company's forestry station, at Wilson, is now a wreck. It has been under the management of a young German. The black locust grows finely in Ellis county, and has not been attacked by borers, but there are traces of this insect in groves at Salina, when a few years ago they could not be found. This variety I find quite successfully grown at this point—Marion.

J. W. Byram, of Cedar Point: I resided twenty-five years in Illinois, and during that period the borer in the locust was unknown, afterwards it put in its appearance. All that have been planted in Chase county within the past eighteen years are a total wreck. The Russian mulberry tree has been classed as insect-proof, but I have it on my farm, seriously injured by a borer of some kind.

J. B. Dobbs, of Antelope: My black locust trees are all destroyed by borers.

J. Fulcomer, of Belleville: The black walnut is a safe tree to plant. Catalpas split down by the winds.

Hon. J. W. Robison, of Towanda: The black walnut succeeds in my locality only when planted on low lands. Black locust trees planted in heavy bodies seem to escape the borer. Again, the presence of this insect seemed to be periodical, in some localities they are not present for years, and then sweep the groves out of existence.

J. W. Byram: I am acquainted with a block of black walnut trees, now fifteen years old, and of the two hundred not one has a trunk as long as my arm.

J. D. Jacobus, of Marion: Black walnuts grown in a grass plat will not succeed. Of the honey locust I notice some trees are thornless and are not troubled with borers. Cannot a thornless strain of this species become established by proper efforts?

B. P. Hanan, of Arlington: I have the thornless honey locust growing satisfactorily. Its roots are sought after by the "pocket gopher." The black locust is doing well at Sterling, and escapes the borer.

J. M. Shepherd, of Abilene: I have a black walnut grove. Its growth is not as rapid as some others on upland. Bottom land suits it best. Cottonwood trees decay early on uplands.

W. Marlatt, of Manhattan: I have a plantation of about 20,000 forest trees, and have only begun to plant. The black walnut trees are the best I have when planted on rich land. Some of my black locust trees are troubled with borers and others are not. In my forest young ash, hard maple, and red cedars are springing up quite thick. I would never plant black walnut trees near cottonwood trees. They will perish by starvation.

With Mr. Marlatt's remarks the discussion closed, and the following report was read by the committee having the subject in charge, namely:

WHEREAS, Experience has proven that a humid atmosphere is an indispensable requisite to the healthful and vigorous growth of fruit and forest trees; and

WHEREAS, It is believed that the dry atmosphere of the western part of the State may be rendered more moist, and its humidity greatly increased by the construction of artificial ponds, therefore

Resolved, That the Kansas State Horticultural Society respectfully request the members of Congress of this State to use their utmost endeavors to procure an appropriation from the surplus now in the National Treasury for the purpose of erecting dams across the streams of the plains, sinking artesian wells, and the construction of reservoirs in the portions of the States in which the aridity of the atmosphere is the great drawback of tree-culture.

Resolved, That we as a society recommend all land-holders, public highway workers, and railroad construction companies to erect as many dams across the draws and creeks of their premises, and along their routes, as they consider expedient or necessary, with the purpose of making fish ponds, furnishing stock water, increasing the humidity of the atmosphere, and grately aiding the important industry, known as forest-culture.

L. A. SIMMONS,
HORACE J. NEWBERRY,
W. R. NEWMAN,
Committee.

Report of committee on obituary, by Horace J. Newberry, of the KANSAS FARMER, for the committee:

Resolved, That in the death of our esteemed life member, Dr. Benjamin Woodward, of Olathe, this society becomes bereft of an earnest, intelligent worker in the cause of horticulture, and a gentleman honored by all for his benevolent and philanthropic attainments.

Resolved, That this society deeply deplores the loss it has sustained in the death of Vice President H. Britton, of Radical City, who has ever been a warm friend, faithful worker and zealous supporter in all things relative to the advancement of horticulture.

Resolved, That in the decease of Professor Isaiah Horner, of Emporia, this society loses an energetic, enthusiastic, earnest member, and the State an almost irreparable loss to one of the important industrial pursuits, of which he was the originator.

Resolved, That this society hereby assures the families and friends of the deceased, that our sincere and hartfelt smypathy is with them in the sorrowful bereavement irreparably sustained on their part.

Resolved, That a certified copy of these resolutions be sent, at once, to the families of each of the deceased.

On motion, the report was unanimously adopted, and the meeting then adjourned until 7 o'clock p. m. HORACE.

(To be concluded next week.)

Vegetable Gardening.

Report of committee on gardening, prepared by E. J. Holman, Leavenworth, and read before the State Horticultural Society, at the December meeting, 1887.

Vegetable gardening is of ever-growing importance, because of its varied and healthful food. Because in Kansas especially we find most of the nutritious vegetables at home. Because science teaches that vegetable food is a necessity, contributing more to a healthful development of body and mind.

If it can be believed (and it should be) that vegetable food is invaluable, and at the same time secured by the least toil and expense, why should we not esteem it more and more appreciate its value. It is a fact beyond dispute that were its value measured by its good results, there would be no farm without its most prominent and popular spot, the vegetable garden. The first place in spring, the last in autumn. The base of most pleasant remembrances during the winter, as the mind reverts from sweet potato, celery and squash pie on the table to the time of anticipation felt from seed time to harvest. What are life's greatest enjoyments? Is not one a good appetite, good food, a good stomach? Is there anything in or out of earth, or sea, that contributes so much to that great desideratum of happiness as the vegetable garden? If not, then it is the base of the true social fabric. Some of our orchardists and small fruit-growers may feel like claiming superiority for their products. The strawberry and apple advocate will remember their goods are of few days and full of trouble, and that for something that sticketh close like a true friend, that the potato and bean will distance his favorites every time and will be on hand to play their part when the others could not be found. I would not separate the fruits from other vegetables or make a comparison, but have them constitute an adjunct without which the vegetable garden is incomplete. One is a necessity, one may be a necessity or it may be a luxury; one is the principal food, the other mainly dessert.

But what shall be said to stimulate vegetable gardening for health and profit? Our land is fast being occupied by the tiller of the soil. Our growing population is fast building great towns and cities where thousands live that of necessity must depend upon the market gardener. Every Kansas farmer should be a Kansas gardener; before his fields should come his garden; before his stock and grain should come his wife, children, boarders, then health and his purse, only then will the garden have its just consideration. And to the gardener, for money, was there ever a time like the present, or section of country so inviting as this? More money in the vegetable garden to-day than in the farm, or orchard, or small-fruit garden, or vineyard. More money will be realized in the future of our State by vegetable gardeners than by any other class of soil cultivators. This fact is fast becoming apparent and must result in enterprise of great value to the State.

There is probably not a State that can, like ours, compete with New Jersey in the excellence of the sweet potato product; and while our sweet potato equals the famous Jersey in quality, her yield will not compare with ours. A wealth-seeking sweet potato specialist could not fail in Kansas. Consider celery a moment, if you please, a luxury now so costly as beyond the means of an ordinary purse, save on extraordinary occasions. This valuable edible is gaining ground, and all we want is a few celery specialists scattered over the State to convince the skeptical that it too may be easily and profitably grown. Great success has attended celery culture this most unfavorable year. It is certainly one of the good things soon coming, inseparable from the march of time. Our seasons, or rather our double seasons, are grand in that we may obtain two good crops of many vegetables, one in the spring, another in the autumn. Lettuce, spinach, beets, turnips, cabbage, peas, beans, potatoes, etc., might be enumerated among such. There are croakers that forever croak and say it is too dry, too hot, conditions most unfavorable for the garden. They tell the truth; they fail to begin in time in spring; everything else is thought of and attended to before the garden; and the result is, that the growth of juicy, tender vegetables is thrown in the heated season. Of course the product will be dry, stringy, pungent. The rule then should be to reverse affairs, as most of garden operations may be completed before farming, as generally practiced, can commence.

It seems to me that a horticultural society should teach that a man aspiring to become a horticulturist must first prove his success as a vegetable gardener. Or, in other words, if he cannot succeed in the vegetable garden with annuals, it is hardly possible that such a one would succeed with perennial plants or trees in a higher profession.

Report on Vine Culture.

Read before State Horticultural Society, by G. R. Espenlaub, Rosedale, Wyandotte county, at its December meeting, 1887.

The year of 1887, just closing, will long be remembered by the vineyardists as the one in which the heaviest grape crop was secured probably since the settlement of this State. It seemed that the season of 1886 was all that could be desired to ripen to perfection a large amount of young wood; the winter following proved a dry and not a very cold one, so that the bearing wood came out in excellent condition; consequently a very heavy setting of fruit forms. The weather continued favorable for blooming and setting of seemingly every berry; nothing interfered with the progress of growth until the ripening of the early varieties. By that time the prevailing drought reached its higbest point, and just when grapes need a good rain more than at any other period of their growth, consequently many grapes shriveled on the vines; later varieties were saved by timely rains and ripened up their heavy burdens without loss.

I have never seen since I have lived in this State every variety bear a perfect crop until this year. Almost every season some kinds suffer from rot, mildew or insects, so as to at least partially destroy the crop; but everything seemed to work in harmony to reach the grandest result of a grape crop in 1887.

The prices obtained here and in Kansas City ran about as follows: For earliest, such as Champion, Salem, and Massasoit, 9 to 10 cents per pound; second ripening, Worden's, Moore's Early, Ives, Telegraph, Hartford, Early Victor, Oto, 7 cents per pound; first ripening of Delaware, 12½ cents per pound; Concord from 6 cents at first to 3½ and 4 cents during main crop; Martha and Elvira sold slow at 3 to 3½ cents, but as soon as Concords were scarce, Goethe brought 6 to 7 cents until northern Concords, Delawares and Catawbas were shipped in by the half dozen carloads daily, which brought the price of Goethe down to 5 cents per pound.

From this we may learn (and this is not an exceptional season) that, first, earliest grapes sell highest; second, that white grapes are not favorites with consumers; third, that late grapes are

hard to sell at prices that we ought to realize when northern grapes are shipped in in such quantities so they will not sell for more than from 3 to 4½ cents per pound by the small basket. It is all well enough to experiment with fancy sorts of white grapes, but it will be a long time before the masses will give up the black sorts as their favorites.

Notes on Back Numbers.

EDITOR KANSAS FARMER:—G. W. Bailey in a recent number gives an interesting reminiscence of your old correspondents and incidentally gives a hit at some who write better than they practice. This reminds us of one of the most prolific writers to the agricultural press of today and upon every conceivable phase of farm life, and yet his intimate sidewalk neighbors had no idea that in their midst was a theoretical farmer of the first magnitude. And his surroundings in his town home was no index to the fact of his knowing very much of farming. The writings of sidewalk farmers can generally be detected by the ear-marks. While theory is needed let us have more of the results of practical experience.

Personally Kansas ways and methods are new to us, and we hope to sit at the feet of the circle of KANSAS FARMER writers and learn something of what they know of farming.

We are much interested in the discussion of public questions, politics, if you please to call it so, in the columns of the FARMER. Its course in this respect is like our old home paper, the *Iowa Homestead*, and like it will become a power felt that politicians of all parties must respect. Of the nine members of the Iowa Legislature who composed the "sifting" committee and strangled all the anti-monopoly bills, every one was elected to stay at home. The great producing classes have rights which the overshadowing corporations must respect.

The article on "Orchard Culture," by Geo. Olivant, will repay a second perusal. We would like to emphasize one point, as experience in another State, the benefit of mulching. It was generally needed there, especially during the hot and dry months of July and August, and we judge the same to be true in a greater degree in this State, from what we observed in newly-planted orchards last fall. In looking about to gather up items of others' experience to guide us we found young orchards planted out that had made a valiant start, but from lack of moisture had to succumb. A load of half-rotted hay or straw mixed with manure, placed for several feet around the tree early in the season would, we have no doubt, saved them. It is not so much the loss of the tree and the expense of planting, but it is the loss of a year in time, and the much further in the future to wait for the fruitage.

We notice two orchards here on adjoining farms, we should judge set out a dozen years or more ago. One has been pruned but little, from appearances. They are fine trees, the lower limbs touch the ground at least on one side, have lots of surface for fruit to grow upon, and are nearly free from blight or sun-scald. The other has had all the lower limbs taken off and many of the side branches of the main limbs. The effect is but small fruit surface, nearly every tree badly damaged by sun-scald. Both orchards bear well, but you can judge where most apples are found. We think we shall allow our proposed addition to the orchard to form tops just as low as possible, lean them toward 2 o'clock, and keep our knife most of the time in our pocket.

Will not a fine grove around the house be grown sooner by planting far enough apart that the ground might produce some hoed crop and the cultivation continued until the large trees completely shade the ground? We noticed one grove last year in which the ground was kept cultivated, not a weed to be seen, and yet the foliage had a dark green appearance in the midst of the drought, while almost all others were in the "sere and yellow leaf." What say experienced tree men? Being a lover of squashes we thought we must try some last year, if it was late when we became Kansans. The vines grew splendidly, but a new black bug to us came and withstood all our efforts to get rid of them. What shall we do with them if they come next year?

J. M. RICE.

Conway, McPherson Co., Kas.

Currant and Gooseberry Trees.

EDITOR KANSAS FARMER:—I saw a short time ago a statement made in one of my papers how to raise gooseberries and currants in a tree form. It was to bend the tips down and cover with earth. Now, I don't think it will make any difference which end is put in the ground; either of them will sucker at every eye. It is very easy to grow either gooseberries or currants in the form of a tree (single stem) by cutting out all eyes that are likely to come in contact with the earth. I saw in Iowa, near Greenbush, half an acre of currants trained in tree form which was the prettiest sight I ever saw. The currants was much larger and they were so easily cultivated.

M. CRUMRINE.

Junction City, Kas.

Planting Grape Vines.

EDITOR KANSAS FARMER:—I will give you my way of planting grape vines, and I think it is a good one for Kansas, especially central and western Kansas, where we are subject to drought. I dig my holes two and one-half feet in diameter and two and one-half to three feet deep and put three inches of top soil in the bottom of the hole, then set my vines in and fill in with top soil up to the top bud, and as the vines grow I keep filling in around them as I cultivate from time to time until filled to the top. By planting this way I get the roots deep down in the ground where frost doesn't hurt them, and during a drought they keep on growing.

M. CRUMRINE.

Junction City, Kas.

CREAM OF A WEEK'S NEWS.

A roughly-executed counterfeit $10 silver certificate has been discovered.

Four men were killed and fourteen seriously injured by an explosion at Dupont's powder works at Wilkesbarre, Pa.

The British Parliament convened and the Queen's speech was read, expressing good will toward the people of all nations.

Prince Bismarck's speech to the national legislature of Germany (Reichstag) puts a peaceful aspect on European affairs.

Railroads centering in Chicago from the West are showing the people that they can carry freight a good deal cheaper than they have been doing it heretofore.

A company of Chicago men recently purchased the old Libby Prison building, and propose to remove it to Chicago. It will be taken apart and rebuilt just as it was.

Some of the officers of the Metropolitan bank, Cincinnati, are in prison awaiting the action of the grand jury. They are charged with misappropriating money belonging to the bank.

Henry George, the land tax reformer, announces his intention to support Mr. Cleveland for the Presidency, because, Mr. George says, the President is heading for free trade. Mr. George himself is opposed to tariff laws of all kinds.

Rowan county, Kentucky, is noted for the lawlessness of some of its people and the inability of local officers to prevent it or stop it. The Legislature is now considering the propriety of disorganizing the county and adding it in slices to adjoining counties.

A Plainview, Neb., dispatch of date of February 8 states: Miss Louise M. Royce, the school teacher who lay on the prairie all night during the recent blizzard, with three of her pupils, all of whom died in her arms, had both feet amputated yesterday. Her left arm is badly deformed by large bits of flesh dropping off, but physicians say it will probably not be necessary to amputate it.

It is said at the Interior Department that the report of the Union Pacific Railroad company for the quarter ended September 30, 1887, which has just been received, shows that nearly [illegible] was paid out by that company during [illegible] $82,000 [illegible] named as rebates to shippers. As the quarter [illegible] report is a list of persons to [illegible] paid. The company companying the [illegible] whom rebates were [illegible] mount should be claim, it is stated, that this [illegible] ascertain- deducted from the gross earnings [illegible] act. ing the net earnings, under the Thurman [illegible].

At a meeting of the joint committee of the seaboard trunk railway lines, it was *Resolved*, That, taking effect February 20, 1888, the system now in operation of making through export tariffs be discontinued; and that hereafter the rates on export traffic be the sum of the inland tariff plus the ocean rates current from time to time, except that the inland rate to Boston on export traffic may be the same as to New York; it being understood that on grain shipments the elevator charges at the point of export shall also be added.

Dr. McGlynn, the deposed Catholic priest who worked a year or more as co-laborer with Henry George, changed his course a few days ago. The New York *Times* says: "The speech of Dr. McGlynn at Pythagoras hall Tuesday evening, breaking away from Henry George and declaring that he no longer wanted him as a Presidential candidate, has caused great excitement in the ranks of the United Labor party, and from the opinions expressed it is not improbable that a split will take place in the party, some taking sides with George and others with McGlynn."

Postmaster General Dickinson has entered into a new contract with the Chicago, Burlington & Quincy Railroad company [illegible] for fast mail service between Chicago and Council Bluffs, to take effect March 18. The present contract calls for fast mail service on a schedule of sixteen hours west daily, six times a week. The new contract for a daily service both east and west upon a schedule of fourteen and one-half hours, the leaving time at either end to be controlled by the Postoffice Department. By this arrangement California mail leaving San Francisco in the evening after business hours and arriving at Council Bluffs in the afternoon of the third day, will there be taken by the new fast train and will reach Chicago in time for the first morning delivery on the fourth day from the Pacific coast. It is the purpose of the Department to secure, if possible, a fast mail from Chicago east, to leave Chicago on the arrival of the Pacific coast train and to make New York in about twenty-five hours from Chicago, and about 112 hours from San Francisco.

Sweet Potatoes.

Sent out to be sprouted on shares. No experience required. Directions for sprouting free. Address, T. J. Skinner, Columbus, Kas.

THE MARKETS.

By Telegraph, February 13, 1888.

LIVE STOCK MARKETS.

St. Louis.

CATTLE—Receipts 1,100, shipments 500. Market strong. Choice heavy native steers $4 45a5 35, fair to good native steers $3 90a4 50, medium to choice butchers steers $3 10a4 10, fair to good stockers and feeders $2 00a3 40, ordinary to good rangers $2 25a4 10.

HOGS—Receipts 3,600, shipments 800. Market active and firm. Choice heavy and butchers selections $5 50a5 70, medium to prime packing $5 10a5 55, ordinary to good light grades $4 80a5 10.

SHEEP—Receipts 190, shipments 500. Market slow. Fair to fancy $3 60a5 25.

Chicago.

The Drovers' Journal reports:

CATTLE—Receipts 2,000, shipments .... Shipping steers, $3 00a5 00; stockers and feeders, $2 25a3 50; cows, bulls and mixed, $1 75a3 15; Texas cattle, $2 50a4 00.

HOGS—Receipts 15,000, shipments 500. Market steady to strong. Mixed, $5 15a5 55; heavy, $5 40a5 80; light, $5 00a5 40; skips, $4 00a5 00.

SHEEP—Receipts 4,000, shipments 1,000. Market steady. Natives, $3 00a5 15; Western, $4 60 a5 12½; Texans, $3 00a4 25; lambs, $4 75a6 10.

Kansas City.

CATTLE—Receipts since Saturday 619. Market strong and active to the extent of the supply. But little desirable stuff on sale. Values were a shade higher for good. Stockers and feeding steers in good demand. Sales ranged $3 00a4 40 for butchers and shipping steers.

HOGS—Receipts since Saturday 4,158. Market active; medium and heavy steady to stronger; pigs and light weights 5c higher. Extreme range of sales $3 25a5 45; bulk at $5 00 a5 20.

SHEEP—Receipts since Saturday 721. Market stronger. Sales: 78 muttons av. 78 lbs. at $3 40; 11 culls av. 70 lbs. at $2 37½.

PRODUCE MARKETS.

New York.

WHEAT—A shade higher. No. 2 red, 89¼a 89¾c elevator.

CORN—⅛a¼c higher. No. 2, 59¾c elevator.

St. Louis.

FLOUR—Quiet and unchanged.

WHEAT—Was very strong until after the noon call, when it broke ⅜c, closing ⅛c below Saturday. No. 2 red, cash, 80¾c.

CORN—⅛c lower. Cash, 45⅝a46⅛c.

OATS—Lower. Cash, 30c.

RYE—Dull at 60c.

BARLEY—80a95c.

HAY—Unchanged. Prime timothy, $12 00a 16 00; prairie, $8 00a12 50.

EGGS—17½c.

BUTTER—Unchanged. Creamery, 24a30c; dairy, 18a26c.

PROVISIONS—Dead dull. Pork, new, $15 00; lard, $7 37½.

Chicago.

Cash quotations were as follows:

FLOUR—Quiet; prices steady, unchanged.

WHEAT—No. 2 spring, 76a78½c; No. 3 [illegible]68; No. 2 red, 80¼c.

[illegible] 47½c.

[illegible] spring, [illegible] 8½c.

CORN—No. [illegible]

OATS—No. 2, 28[illegible]

RYE—No. 2, 60c.

BARLEY—No. 2, 77c.

FLAXSEED—No. 1, $1 44a1 45.

TIMOTHY—Prime, $2 45a2 46.

PORK—$14 02½a14 05.

LARD—$7 62½a7 65.

BUTTER—Quiet and easier. Creamery, 24½ a30c.

EGGS—Scarce, firm and higher; 24a26c.

Kansas City.

WHEAT—Receipts at regular elevators since last report, ... bushels; withdrawals, 5,500 bushels, leaving stock in store as reported to the Board of Trade to-day, 313,007 bushels. There was a stronger but quiet market to-day on 'change, with no sales on the call of any of the different grades, either for cash or future delivery. No bids nor offerings either for rejected winter, No. 4 winter, No. 3 red winter or No. 3 soft winter wheat. No. 2 red winter, none on the market. No. 2 soft winter, cash, no bids nor offerings; May, 80c bid, 81c asked. On track by sample: No. 2 soft, cash, 80c.

CORN—Receipts at regular elevators since last report, ... bushels; withdrawals, 1,000 bushels, leaving stock in store as reported to the Board of Trade to-day, 140,468 bushels. The market on 'change to-day was firmer, with no sales on the call either for cash or future delivery of any of the different grades. On track by sample: No. 2 mixed, cash, 44½c; No. 2 white, cash, 47½c.

[illegible] and February, no bids nor [illegible] mixed, OATS—No. 2 cash [illegible] offerings. On track by sample: No. [illegible] cash, 31½c; No. 2 white, cash, 33c.

RYE—No. 2 cash, no bids nor offerings.

FLOUR—Firm; inquiry good and many offers made, but at prices that cannot be met. Quotations are for unestablished brands in car lots, per ¼ bbl. in sacks, as follows: XX, 90c; XXX, $1 00a1 05; family, $1 15a1 25; choice, $1 50 a1 60; fancy, $1 65a1 70; extra fancy, $1 75a1 80; patent, $2 05a2 10; rye, $1 40a1 60. From city mills, 25c higher.

HAY—Receipts 20 cars. Market firm, fancy, $9 00 fo[illegible] small baled; large baled, $8 50; wire-bound 50c less; medium and poor stock steady.

OIL-CAKE—Per 100 lbs. [illegible] sacked, f. o. b., $1 25; $11 00 per 1,000 lbs.; $20 [illegible] per ton; car lots, $20 00 per ton.

SEEDS—We quote: Flaxseed [illegible], $1 25 per bu. on a basis of pure; castor bea[illegible], $1 00 for prime.

BUTTER—Receipts of roll fair and [illegible] market firm. We quote: Creamery, fancy, [illegible] 27c; good, 22a25c; fine dairy in single package lots, 16a20c; storepacked, do., 14a16c for choice; poor and low grade, 9a10c; roll, good to choice, 15a18c.

CHEESE—We quote: Full cream, twins, 13c; full cream, Young America, 13½c.

EGGS—Receipts large and market [illegible] 14c per dozen for fresh.

PROVISIONS—Following [illegible] weak at round lots, Job lots usually [illegible] otations are for llc; breakfast bacon, 10½ [illegible]c higher: hams, dry salt shoulders, $5 75 [illegible] dried beef, 9c; clear, $7 50; short clear, [illegible] clear, $7 40; [illegible]ed shoul ders, $6 50; long clear, $8 15; clear, $8 25; short clear, $9 50; pork, $14 00; lard, $6 12½.

Topeka Markets.

PRODUCE AND PROVISIONS—Corrected weekly by W. W. Manspeaker & Co., 711 Kansas avenue. (Wholesale price).

Butter, per lb			$ 20a 25
Eggs (fresh) per doz			12½
Beans, white navy, H. P.	per bus		2 90
Sweet potatoes	"	"	1 00
Apples	"	"	1 00a1 25
Potatoes	"	"	90a1 20
Onions	"	"	1 00a1 50
Beets	"	"	40a
Turnips	"	"	50

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, 1866, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisement, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the 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, and he must at the same time deliver a copy of said notice to the County Clerk of his county, who shall post the same on a bill-board in his office thirty days.

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 appraisement.

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 FEB. 2, 1888.

Chautauqua county—W. F. Wade, clerk.

PONY—Taken up by W. A. Barnes, in Bellville tp., December 19, 1887, one iron-gray mare pony, 2 years old, 12½ hands high, both hind feet white, star in forehead, no brands perceivable; valued at $15.

HORSE—Taken up by Eliza Brown, in Hendricks tp., January 2, 1888, one dark bay horse, no marks or brands, 3 years old; valued at $50.

Cowley county—S. J. Smock, clerk.

COW—Taken up by E. H. Denton, in Bolton tp., [P. O. Arkansas City], December 24, 1887, one red cow, branded X bl; valued at $18.

Sedgwick county—S. Dunkin, clerk.

COLT—Taken up by G. A. Keister, in Waco tp., January 15, 1888, one sorrel mare colt, about 2 years old, white face, white hind legs, mane and tail a little dark, 13½ hands high; valued at $25.

Johnson county—W. M. Adams, clerk.

COW—Taken up by A. M. Piper, of Monticello, December 24, 1887, one red cow, 2 years old, some white on belly, both horns sawed off.

Rice county—Wm. Lowrey, clerk.

MARE—Taken up by James G. Hagee, in Center tp., January 16, 1888, one gray mare, 11 hands high, dark mane and tail, both eyes glassed, branded with an inverted q on left hip, C on right hip, about 7 years old; valued at $25.

Stanton county—M. F. Banburg, clerk.

OX—Taken up by J. S. Hubbard, in Roanoke tp., January 2, 1888, one white and yellow spotted ox, 8 years old, left horn drooped, 96 on right side and hip, crop and under-bit in left ear, crop and upper-bit in right ear; valued at $20.

Montgomery county—F. W. Fulmer, clerk.

HEIFER—Taken up by J. W. Miller, in Independence tp., one red 2-year-old heifer with white spots and white spot in forehead; valued at $13.

Brown county—N. E. Chapman, clerk.

COW—Taken up by L. O. Law, in Mission tp., one red cow [calf by side], slot or swallow-fork in left ear and slit in right ear.

CALF—By same, one calf, slot or swallow-fork in left ear; both valued at $15.

Wyandotte county—Wm. E. Connelley, clk.

COW—Taken up by Green Ewing, in Delaware tp., November 2, 1887, one black and white cow, 7 or 8 years old, crop and under-bit in left ear, crop and two slits in right ear, branded H. O. on left hip.

CALF—By same, one spotted heifer calf, about 6 months old.

Jackson county—E. E. Birkett, clerk.

COW—Taken up by W. Shoup, in Douglass tp., December 5, 1887, one red cow, 7 years old, white spot in forehead, letter S and straight mark on right side.

CALF—By same, one red late spring calf, white spot in forehead; both valued at $22.

FOR WEEK ENDING FEB. 9, 1888.

Lyon county—Roland Lakin, clerk.

HEIFER—Taken up by Joseph Anderson, of Pike tp., January 7, 1888, one 2-year-old red and white heifer, red neck and ears, white stripe in face, branded on left hip with O and character similar to ꝛ with hook turned toward the O, no other marks or brands; valued at $12.

STEER—Taken up by Geo. Creighton, in Americus tp., January 25, 1888, one 2-year-old dark roan steer, branded C on right hip; valued at $15.

STEER—Taken up by John Grandeen, in Fremont tp., January 25, 1888, one 2-year-old red steer, some white in face and on left flank, ring and tag in left ear, indistinct brand on left hip supposed to be D or O; valued at $15.

COW—Taken up by John Beyer, in Emporia tp., January —, 1888, one 6-year-old red cow, star in forehead, small black heifer calf at side; valued at $18.

HEIFER—By same, one red-roan 3-year-old heifer; valued at $16.

PONY—Taken up by T. E. Welch, in Elmendaro tp., January 18, 1888, one 3-year-old light bay horse pony, right fore foot and leg dark, other feet and legs white, white face, no brands; valued at $20.

Atchison county—Chas. H. Krebs, clerk.

COLT—Taken up by Mrs. Kate E. Perry, in Center tp., [P. O. Nortonville], September 14, 1887, one sorrel mare colt, blaze face, 18 months old; valued at $30.

Nemaha county—W. E. Young, clerk.

PONY—Taken up by M. B. Casey, in Red Vermillion tp., [P. O. Corning], January 2, 1888, one roan horse pony, 12 to 15 years old, small slit in top of each ear, two white hind feet, black legs above the white, no marks except collar marks.

Graham county—B. Vantyck, clerk.

HEIFER—Taken up by G. W. Farrow, in Graham tp., December 21, 1887, one red and white heifer, tail one-third white, no marks or brands; valued at $14.

Riley county—O. C. Barner, clerk.

STEER—Taken up by D. W. Hassenbroeck, of Riley Center, one red spotted 2-year-old steer.

HEIFER—By same, one white 2-year-old heifer.

Rooks county—J. T. Smith, clerk.

PONY—Taken up by L. B. Powell, in Stockton tp., [P. O. Stockton], December 27, 1887, one bay horse pony, 6 years old, branded O or C on left shoulder, some white in face; valued at $20.

Labette county—W. J. Millikin, clerk.

PONY—Taken up by James A. Davis, in Fairview tp., July 18, 1887, one sorrel mare pony, 13 hands high, branded W on left hip and shoulder; valued at $15.

PONY—By same, one sorrel mare pony, branded W on left shoulder; valued at $15.

Coffey county—H. B. Cheney, clerk.

MARE—Taken up by C. W. Welk, in Lincoln tp., January 19, 1887, one bay mare, 12 years old, 14 hands high, branded O on both shoulders, collar and saddle marks; valued at $18.

Brown county—N. E. Chapman, clerk.

PONY—Taken up by Oliver Dimmock, in Irving tp., one dark iron-gray mare pony, branded D on left hip and perhaps O below the hip, about 12 years old; valued at $12.

Wabaunsee county—G. W. French, clerk.

COW—Taken up by W. R. Banks, in Wabaunsee ty., (P. O. Wamego), January 22, 1888, one small 3-year-old red cow, some white in face, white on hips and white ring on tail, piece off both ears, heifer calf mostly red by her side; valued at $20.

STEER—By same, one red and white yearling steer, slit in right ear, white in face, with faint brand on right hip, medium size; valued at $13.

HEIFER—By same, one red yearling heifer, white in forehead and on tip of tail, medium size; valued at $13.

STEER—By same, one yearling steer, medium size, mostly white, with yellowish-red neck, legs and tail, left ear cropped and branded L or J on left hip, also brand on left side like a figure 5; valued at $12.

FOR WEEK ENDING FEB. 16, 1888.

Nemaha county—W. E. Young, clerk.

CALF—Taken up by C. Woodward, in Adams tp., (P. O. Woodlawn), January 10, 1888, one red male calf, 1 year old, large heart in face, white belly, all feet white, white spot on left hip with indistinct brand on white spot; valued at $12.

CALF—Taken up by Eugene Long, in Adams tp., (P. O. Seneca), December 2, 1888, one light red 1-year-old heifer calf, star in forehead, white spot in left flank, no other marks or brands; valued at $15.

Wyandotte county—Frank Mapes, clerk.

PONY—Taken up by L. Colby, of Junction, one gray Texas pony, about 7 years old, no distinct marks or brands.

Woodson county—R. M. Phillips, clerk.

COW—Taken up by A. T. Woodruff, in Center tp., December 26, 1887, one red and white cow, 4 years old, no marks or brands; valued at $15.

Logan county—J. W. Kerns, clerk.

GELDING—Taken up by A. C. Allmon, of Russell Springs, January 28, 1888, one gray gelding, 16 hands high, about 10 years old, no marks or brands; valued at $50.

Montgomery county—G. W. Fulmer, clerk.

STEER—Taken up by J. M. Talbott, in Parker tp., one 2-year-old steer, white with red neck and some red spots, indistinct brand on left side; valued at $10.

Too Late to Classify.

MAMMOTH CUBAN CORN.—This corn will mature in ninety days and will yield twenty to thirty bushels more than other varieties. In 1886 it yielded eighty bushels per acre. Price, half bushel, $1.25; one bushel, $2.25; two bushels, $4. Bags included. Address John Shoup, Whiting, Jackson Co., Kas.

SEEDS.—Ten packets Vegetable, 25 cents. Catalogue and two packets Flower free. A. Anderson, Leigh, Nebraska.

FOR SALE OR TRADE—Trees, Plants, Shrubs or Evergreens for Plymouth Rocks and Berkshire Pigs. Bonner Springs Nursery, Bonner Springs, Kas.

WANTED—A practical butter-maker and good business man to take charge of a first-class creamery. Address J. F. Savage, Coffeyville, Kas.

Stallion for Sale.

A finely-bred HAMBLETONIAN STALLION, seven years old, solid chestnut color. Nice driver or saddle horse. Sure foal-getter. Will sell on easy terms or trade for land or cattle.

J. M. ANDERSON,
Salina, Kansas.

PURE GERMAN CARP FOR SALE.

For stocking ponds. All sizes, from 2 to 10 inches. Prices on application.

J. J. MEASER,
Hutchinson, Kansas.

Remember the FARMER is now $1 a year.

The Veterinarian.

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

About Milk Fever.

A cow having died with milk fever, will another occupying the same stall afterward be likely to contract the disease? An old dairyman and one who takes excellent care of his stock at all times, has lost four with this disease in two years. Please give treatment for this disease and also general directions for management at time of calving. Is it desirable for a cow to eat the afterbirth?

Milk fever is not a communicable disease, accordingly it could not be contracted in the way indicated by the question. Treatment is a matter which depends altogether upon the peculiarities of the individual case. If the patient is plethoric—full-blooded—and the disease attended by a full, strong pulse, depletion may be useful and may be best done by giving twenty to thirty drops of croton oil together with one quart of raw linseed oil. The tincture of aconite in doses of one drachm, largely diluted with water, should also be used, and, as the pulse does or does not yield to its influence, the dose repeated every third hour or not at all. But if instead of being plethoric the patient's condition is quite the opposite, so the treatment, in place of depleting should be calculated to support, and possibly stimulate. To this end whisky or other alcoholic stimulant may be given, one to two pints, together with an equal quantity of water, being the ordinary dose, which may be repeated once in three hours if necessary. This treatment may be undertaken if the patient is sensible and can swallow, to determine which fact, water may be poured into the mouth from a drenching bottle. If the water is swallowed without causing coughing or choking, the medicine may be given with safety. If on the other hand the patient is either partially or completely comatose, insensible, it would be unsafe to attempt giving medicines by the mouth, as choking followed by inflammation of the lungs, and possibly by immediate death, would result. In cases of this kind the operation of rumenotomy must be performed, and the medicines introduced directly into the rumen. To do this operation the rumen should be spread through the left flank, the greater portion of its contents removed, and then the medicines introduced through the opening. This operation is best left to the veterinarian, as indeed is the entire treatment of the case, as in addition to a finer discrimination of what does and what does not constitute correct treatment in a given case, that person is possessed of resources which are not available to any other. If, as in some cases, the rumen becomes distended with gas, it may be tapped in the left flank, at the point where the distinction is most marked. In cases of this kind gases passing up the gullet are apt to bring food into the mouth. Care should accordingly be taken to so place the animal's head that this food may fall forward and out of the mouth; as if it remains in the throat death from choking is apt to occur. If in addition to the foregoing the patient is not left lying on one side, but is turned every three hours, all will be done that can be. It may be well to call attention to the fact that the disease is most apt to occur after—or a short time before—the third calf, and that a cow which has been attacked once is liable to be again at a subsequent calving.

As to management at calving time, but little can be said. If the cow has not been overfed during her pregnancy, and has been regularly and efficiently exercised, no care will be called for further than keeping her quiet and attending to cleanliness and proper ventilation of the stall It is well to avoid a full feed within twenty-four hours of calving both before and after that event, and if the labor is tedious, the diet should be restricted to oatmeal gruel or some like food. It may be stated as a rule that medicines are uncalled for at this time, but like every rule this one has its exceptions. If, when the calving time is at hand the cow is constipated, good will come of giving a quart or more of raw linseed oil. Again if during a long labor, symtoms of exhaustion show themselves, a milk punch, made by adding half a pint of any alcoholic liquor to a quart of fresh milk, may be given, and if need be, repeated after an hour or thereabout. If the cow is treated with anything like fairness in the matter of food, exercise and stabling, she is her own best physician. —[*F. E. Rice, V. S., in Farm and Home.*

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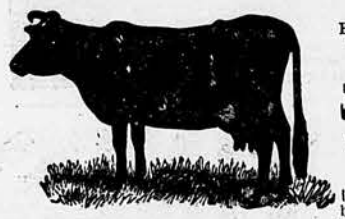

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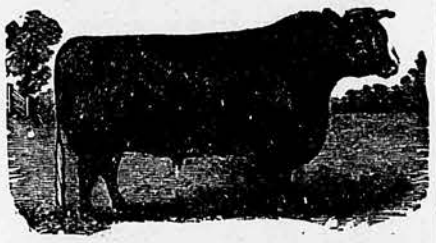

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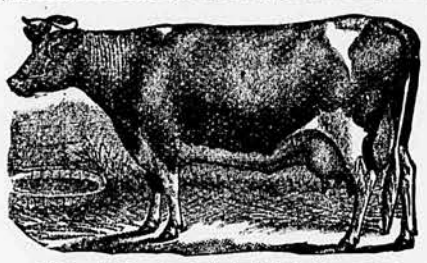

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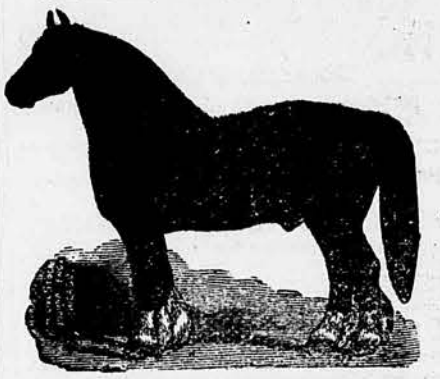

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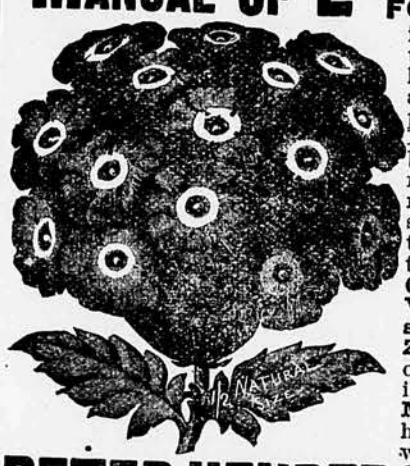

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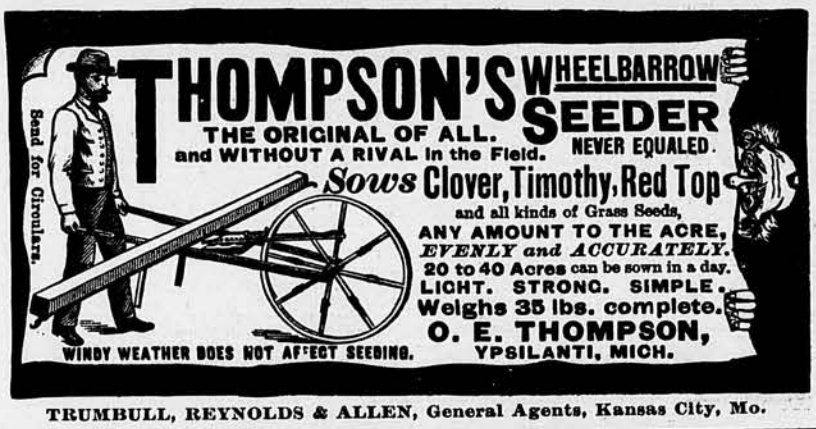

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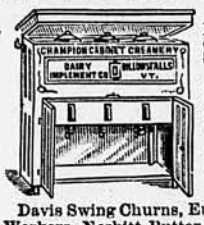

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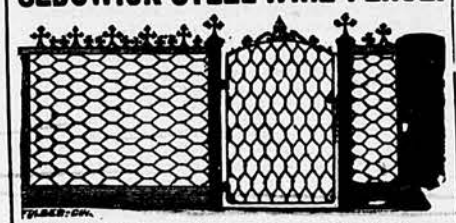

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Has a Pad different from all others, is cup shape, with Self-adjusting Ball in center, adapts itself to all positions of the body while the ball in the cup **presses back the intestines just as a person does with the finger.** With light pressure the Hernia is held securely day and night, and a radical cure certain. It is easy, durable and cheap. Sent by mail. Circulars free.
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BREEDERS' DIRECTORY.

(Continued from page 1.)

POULTRY.

D. O. BACON, Fort Scott, Kas., breeder and shipper of standard thoroughbred Poultry—Plymouth Rocks, Langshans, S. C. Brown Leghorns and Champion strain of Pekin Ducks. Eggs and birds in season. Correspondence solicited.

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HOUDANS.—A few cockerels or pairs to spare. Pure blood. My fowls are from the noted "College Hill Poultry Farm" at Manhattan. Males $1.50, pullets $1. Eggs in their season. Mrs. G. D. Baker, Holton, Kas.

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EVERGREEN FRUIT FARM.—Leading varieties Strawberry Plants, S. C. Brown Leghorn Fowls, Poland-China Swine. Send for prices. T. F. Sproul, Frankfort, Kas.

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CLYDESDALE STALLION—$1,000 will buy Clydesdale Stallion, coming 3. Excellent individual; excellent pedigree. Address Thos. Tippit, Olney, Illinois.

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TWO-CENT COLUMN.—(Continued.)

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FOR SALE—Two Stallion Colts, coming 2 years old. Sired by imported Cleveland Bay stallion President, out of trotting-bred mares. No. 1, 15½ hands, weight 1,130 pounds; No. 2, 15¾ hands, weight 950 pounds. Both bays. Also one Stallion—three-fourths Clyde; 16 hands; weight 1,500 pounds; bay; coming 3 years old. Address Wm. Roe, Vinland, Douglas Co., Kas.

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WANTED—75,000 readers of the FARMER to read this column each week for great bargains.

FOR EXCHANGE—A year's subscription to the KANSAS FARMER, or a twenty-word advertisement in this column five weeks, for $1. Address Kansas Farmer Co., Topeka.

TWO-CENT COLUMN.—(Continued.)

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