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Agricultural Matters.

A Big Barn Cheap.

EDITOR KANSAS FARMER:—Herein please find \$1 to renew my subscription to your valuable paper. It has become one of the indispensable necessities of life that must be provided without regard to the condition of the times. I regard it as the most valuable paper published for the farmers of our own State, and never a copy appears but what conveys valuable ideas and suggestions. The many articles, on different topics relating to all branches of farm life contributed by actual farmers are certainly of inestimable value to all willing to avail themselves of the benefit of others' experience.

My attention has been directed to the subject of barns by a couple of articles lately appearing in your paper, and as I have had a little experience in that line this summer I thought perhaps a suggestion or two might be of value to some one.

I built a barn 65 by 100 feet, for hay and cattle, at a cost for material of about \$500. How does that strike you for a land 1,000 miles from source of lumber supply? It is not fine to look at of course; most of us are not yet well enough healed to give that item much consideration, and yet it looks cozy and comfortable, and I think stock will enjoy it just as much during the January blizzards that we are to have as though it had cost as many thousands instead as hundreds. The plan of it is briefly this: The frame is all of native poles, cheaper and better than any kind of pine, bolted together with half-inch bolts; through the middle is the hay-mow, 25 feet wide and 20 feet high to plates, and 100 feet long, of course. This holds a big pile of hay any way you figure it. On each side is a shed 20 feet wide and 8 feet to eaves; that gives me shed room 200 feet long and 20 feet wide; plenty of room for 100 head of cattle with the horns off. On each side are feed racks and mangers next to hay, to prevent waste of feed. The mow is filled with horse hay-fork from both ends, to prevent too much loss of time in traveling whole length of barn. For this purpose a reversible cart is needed. The feeding is specially and comfortably done by simply turning the feed racks on both sides. The sheds are provided with doors at both ends, and leeward doors are al-

ways left open and the animals come and go as they please.

If any other plan has ever been devised to get as good value for money invested for sheltering food and stock as this, I have failed to find it, and I have been on the look out for it many a year. The whole thing is solid and substantial, and will stand as much storms as any other buildings. I should say that the main part, the hay mow, is covered with 10-inch boards, grooved near the edges, and the sheds are covered with shingles. It is boarded all around with 8-inch flooring. The roof is even throughout the whole extent and does not have the appearance of a lean-to to a main building. The sides being only 8 feet high gives it a somewhat squat look, but as remarked before, it is not the looks altogether we are after just now; any body can see that the comfort is there, and at an expense that almost any average farmer can afford. I apprehend that one of the most important questions which Kansas farmers are puzzling their heads to solve, as I have racked mine to solve it, is to provide shelter for their stock. The enormous cost of all building material, so far from course of supply, makes it one of the greatest drawbacks to the development of our State, and any one that can in any way contribute ideas to help the poor man, and even the man in moderate circumstances, to provide shelter for his stock must be a public benefactor.

B. NAUMAN.

Frankfort, Marshall Co. Kas.

How to Raise Peanuts.

EDITOR KANSAS FARMER:—We can raise as good peanuts in southern Kansas as in Virginia or Tennessee. It is a surprise to many residents of our State, to tell them that we can raise peanuts in paying quantities here at home. Almost every farmer here raises a few bushels per year for their own use. The culture is as simple as the raising of potatoes. Here any ground will produce corn will produce a crop of peanuts. We have not tried long enough to determine what kind of ground will be the best for them. It must be ground that will not bake and get hard during the growing season. Plow the ground the same as for corn. Before planting, harrow the ground thoroughly; the oftener it is harrowed before planting, the easier it will be to have the crop free from weeds. Mark off the ground in rows three feet apart; break the peanut shells so that there will be only one kernel in a piece, drop them two feet apart in the row, cover a couple of inches deep. As soon as they come up give the ground a thorough working with the cultivator. Cultivate and work until the vines cover the ground, so that the cultivator can not be used. If weeds are started between the hills they will have to be cut out with the hoe. Let them grow until the vines are killed in the fall. To harvest the crop take a manure fork and run it under the hill and lift out vine and nuts together. It is best to dig in dry clear days. Let the nuts dry on the vines a few days, then hull them off and spread them in the same place so they will get thoroughly dry, and then they can be kept in barrels or boxes. Some farmers stack the vines and let them stand until they have leisure time to pick off the nuts. If one has a good granery or barn they can be thrown in loose, nuts and all, and remain as long as wanted.

The plant sends down one tap root; from that the vines grow in all directions, and every few inches along the vine they send down an inch deep a straight root on which the nuts form. The first and best nuts form near the main roots; as the vines extend new nuts form. This growth continues

during all the growing season. We find nuts in all stages of growth, from the ripe nut to the shell that is just formed. They grow just below the surface of the ground.

They should be planted about the same time as corn. We usually plant as soon as we can after corn planting. There are two kinds, the white and the red. The white is the best, both to raise and to eat. The red grows more upright than the white. Any one can tell the difference in the seed, as the seed of the red, is bright red, of the white, a lighter color.

There is an idea that it is necessary to cover the vines as they blossom; this is useless work, as they bear as well without covering as with it. Nature will see that the nuts are all deposited under ground. If we had a market for them, we could make more raising them than we can off any other crop. There has been one bushel per square rod raised here. I have got from one quart to three pints from a single vine. I have been told that there has to be machinery to dry and clean them for market, where they are raised on a large scale. If some one would erect suitable machinery and go into the business of preparing them for market, they could soon get all they wanted to purchase. Will some one that knows please give the process of preparing them for market.

Here many families raise and use five bushels in one winter. The average boy will fill his pockets full before he starts to school every day, and then not have half enough. Every dollar we can keep at home is worth two dollars sent away.

I forgot to add in the proper place, that when once started, the peanut is hardy. Three years we had a heavy hail storm that injured many crops; last year had hot winds that injured the corn; peanuts never wilted—they grew right along and made a good crop in spite of drouth and chinch bugs. I have never seen the chinch bugs injure the peanuts.

D. M. A.

Rome, Sumner Co., Kas.

Raising Peanuts.

EDITOR KANSAS FARMER:—I have raised more or less of these for several years and find no difficulty in growing them here. My soil is a sandy loam, readily worked into a good condition. They are no harder to grow than any other vine crop, and there is no more secret in growing them than in raising a crop of squashes or pumpkins. The soil is reasonably well prepared as soon as the danger from frost is past, plowing or spading deep and thoroughly and working until in a good tilth, the same as for a crop of potatoes. It is quite important to see that the soil is in good tilth, so that a good germination and quick growth can be secured. Mark out the rows about two feet apart if planted in the garden with the intention of cultivating with the garden tools, or three feet apart if to be planted in the truck patch and to be cultivated with the cultivator. The furrows should be shallow, not more than three inches deep, and then plant one good nut in each hill and plant the hills about eighteen inches apart, covering well with soil and pressing the soil down upon them with the hoe. A quicker germination can often be secured by cracking the nuts and taking out the kernels and planting them; if this is done care should be taken not to bruise or break the thin covering that envelops the seed or nuts. Sufficient cultivation should be given to keep down the weeds and at the same time have the soil fine and mellow. The principal part of the cultivation should be given before the plants start to run, as I never like to disturb them. After they once get fairly started to growing they will run over the ground so that no further

cultivation will be necessary. The weeds should not be allowed to grow, and if any come up after the cultivation has been discontinued they should be pulled up.

The crop should be harvested before frost much the same as sweet potatoes, excepting that the nuts will be scattered all over the ground; wherever a joint takes root there will usually be found a cluster of nuts. They yield well and for a trial plant a dime's worth of seed; will give you quite a supply under anything like fair conditions. Let the boys raise a small crop.

N. J. SHEPHERD.

Eldon, Miller Co., Mo.

Check-Rowing versus Listing Corn.

EDITOR KANSAS FARMER:—I have seen some inquiry in regard to listing corn. After having tried it six or seven years, planting from 150 to 200 acres per year, I am free to say that there is no other plan I ever tried which give such good results. In fact there is but little corn in this locality planted in the old plan of plowing and planting. The system generally adopted there is to double list. As soon as the ground is in condition to work in the spring, the lister is started, making the rows about three feet ten inches apart, without planting any corn. When the field is all listed and the proper time for planting has arrived, the lister is again put in operation, splitting the ridges in the middle and planting the corn, covering it about one and a half to two inches.

Now for some of the advantages. *First.*—With four horses or mules from eight to ten acres of ground can be prepared per day, whereas by the old style of plowing but two and a half or at outside three acres could be prepared. *Second.*—By double listing, when planting season has arrived, the weed seeds have sprouted or have come up, then the lister turns them all upside down in the old furrow, completely covering them. *Third.*—The corn is planted in a clean new furrow with no weeds, or even seeds, within seven inches on either side the row, whereas the old plan when you are through plowing and are ready to plant, the weeds are either up or ready to come up with the corn, and in the hill as well as elsewhere, requiring unceasing labor to exterminate them. *Fourth.*—Twice the amount of land can be cultivated by double-listing, as in so doing when done planting the field is clean and free from weeds, and what harrowing is done can be put on the corn, and the double-listing is equivalent to one cultivation. *Fifth.*—Corn stands up better and will stand drouth better than when planted by the old method. These are the main reasons I have for listing corn. Mr. Editor, we don't raise corn for the fun of it or just for recreation, but to raise those infernal mortgages that are causing so much trouble to some. Do we not give more prominence to the manner of preparing the ground and planting than to the varieties of corn we plant? If we raise a variety of corn with a grain one-half inch in length, is it not a fact that it yields twice the fat-giving properties that a variety does which is only one-fourth inch in length. Then, if that proposition is correct, a variety that produces kernels three-fourths of an inch long produces three times as much fat-giving properties as that only one-fourth inch in length. It is a lamentable fact that there are thousands of acres of corn planted that the kernels will measure but little if any more than a quarter of an inch in length. For the past thirteen years I have been improving a variety of corn with a view of producing grains three-fourths of an inch in length, and have succeeded, and I now believe that it is possible to produce them seven-eighths of an inch long.

For fear this may find the waste basket I will close. May have something to say in future in reference to this part of drouthy Kansas, as I have lived on this farm over twenty-two years. Enclosed find remittance for another year for FARMER, also a few grains of corn; lay them on a rule and give them a fair measurement.

W. RAMSEY.

Solomon, Dickinson Co., Kas.

The kernels measure well; they somewhat resemble gourd seed corn, but they are not as full and plump.—EDITOR.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

JANUARY 25—Percheron and Arabian Importing Horse Co., Horse, Fremont, Nebraska.
FEBRUARY 8, 1889.—Berridge Bros., English Shire Stallions, Lincoln, Neb.

About Silos and Ensilage.

Silos, cellars for preserving green food for stock, are becoming deservedly very popular. There are different methods of building, different materials are used, and some persons simply stack the green forage and let it go at that. But this is wasteful, and not satisfactory. The secret of preserving the crop green lies in keeping air and water out of it as nearly as possible. Whatever method will do this, will save the food. Men may expend as much money as they choose on silos, but a poor man can get along very well with something cheap. At first nearly every farmer that made a silo, made it of stone, and that material is still recommended by some persons, but the better opinion is against stone. Prof. Shelton favors wood, and so do all the latest experimenters as far as we know. A pit dug in the side of a hill, if the ground is hard and dry, and if the place is well drained, will do a good deal better than no silo at all. A pit in level ground, if near a ravine so that it may be drained, will do if nothing better can be had. A wooden bin above ground is good, if it be made strong and is well covered. The great thing is to get the stuff evenly spread about in the silo and well packed along the outside. Silos ought to be deep so as to secure as much weight as possible from the ensilage itself without adding much extra weight. The corn, or grass, or whatever is used, ought to be cut into short lengths so that it may be spread easily and well packed. If this is done, any structure which will not yield to the lateral pressure will do for a silo, even though, as some one says, it be a rail pen; but there ought not to be any open cracks, and if there are, straw, or hay, or chaff ought to be laid along them and let the ensilage be piled and packed against it. Keep out air and water, below, around and above.

Fill in two or three feet of the cut food, spread it evenly and pack it well; let lie twenty-four hours so that it may heat up a little above blood heat, then put in another layer in like manner, and when the silo is full cover with hay or straw and throw on some boards or other things to press the covering down well to shut out the air, and then cover water tight. If hay is stacked over the top for cover, no boards or other weight are needed.

The Junction City *Tribune* had a good ensilage article last week. We do not agree with our contemporary about the use of stone silos, but it gives good counsel upon the filling and subsequent proceedings. We quote a few paragraphs on those points, as follows:

"To fill the silo some good forage crop is used. Green corn has been found very appropriate. The corn should be planted in drills about three and one-half feet apart, and one or two stalks every eight or ten inches. Cultivate well in the usual way. When in roasting ear, before the fodder begins to dry, and while the stalks are still juicy, is the time to harvest. Cut in the usual way close to the ground, throwing in convenient armfuls on the ground. Then, while still green, or partially wilted, haul to the silo. Run the corn through a horse-power cutting machine, reducing the stalks, fodder and ears to about half-inch lengths. In this condition it is conveyed by apron or carrier

into the silo, where it is leveled and tramped down as compactly as possible. This process is continued from day to day until the silo is full. After settling and heating a few days it is filled up to the top again. Then cover with hay, straw or fodder. On that put a floor of boards and weight with stones, or clay in barrels. The heat drives the air out of the ensilage. The covering and weight prevents the air from entering, and the whole mass is cooked and preserved on the same principle of saving fruit by canning. No further heating occurs after the weight is put on.

In building a silo as here described, a door 2½ by 5 feet must be made on the south side near the ground, from which to feed. Projecting from this door construct a garner about three feet wide and twelve to fifteen inches deep, elevated from the ground to permit pigs to pass under it. This garner may be made long enough to accommodate all the cattle at once, eating from both sides. The top edges should be made for a track for the feeding car. The car, then, in its place on top of the garner is run to the door of the silo and filled. The feeder, mounting into the garner, pushes the car ahead of him and draws the ensilage out at the hind end as the car proceeds. The cattle go to eating very eagerly while the feed is warm and smoking. It is better, of course, that cattle should be sheltered in winter, with roof over head and walls on two or three sides. The south and east may be left open for ventilation.

"If the cattle have been dehorned they will be as docile and peaceable as a flock of sheep, huddling together in cold weather, keeping each other warm. A shed full of peaceable cattle without horns, quietly feeding on warm ensilage, is a pleasant and profitable sight to the farmer, as compared with the old savage, bankrupting plan of dry hay fed among storms and snow drifts, and all the smaller cattle suffering starvation and martyrdom, tossed around, bruised and frightened by the murderous horns of the master animals.

"Full-grown cattle will consume about fifty pounds of ensilage in a day, and need nothing else except water, salt and plenty of straw for bedding. Milk cows will be as flush as in mid-summer, when weather and grass are most favorable.

"An acre of good green corn will make about twenty tons of ensilage, and will feed a full-grown cow about 200 days, or, nearly seven months. One acre of green corn made into ensilage will winter four or five cows. Put up in the usual dry state it will winter one or two head in a less profitable manner."

The Problem Before Wool-Growers.

There is quite general concurrence on the part of the agricultural press in the opinion that American farmers ought not only not to abandon wool-growing, but on the contrary, they ought to increase their wool crop. This is the view taken all along by the KANSAS FARMER. Every farmer in Kansas who can keep a few sheep, anywhere from a dozen to a thousand, and keep them well without interfering with other departments of farm work, ought to do so. Wool is always in demand, and even though the price be low, it is that much, and it is almost if not all clear gain, for the natural increase of sheep pays for their keeping.

In this vein several excellent articles have recently appeared in the *Breeder's Gazette*. Below we give an extract from one in which the writer had been considering the improbability of tariff duties on foreign wool being materially changed, and after concluding that duties will remain about as they are, the editor concludes that—

"This means that wool must hereafter

be grown in the United States under the existing duty, and presents to flock-owners the alternative of making sheep husbandry profitable with a protection of 10 cents or less per pound or abandoning the business altogether. With such an alternative confronting them the *Gazette* has no doubt as to the decision of American flock-owners. That they will continue to raise sheep, and will find some way to secure a profit from the business. The *Gazette* feels confident—basing its confidence on the fact that economies in management, enhancement of carcass, increase in value of fleece, are as clearly within reach now as they were ten years ago. This is the line along which the *Gazette* has endeavored to lead its sheep-owning readers, and seemingly the only one by which success can be attained. Men who have complained because their flocks were not profitable with wool at ruling prices have been urged to grow more pounds per head, because so long as it was not possible to get more cents per pound for wool the desired end would be reached by growing more pounds to the sheep. And then those who have hitherto been content to be classed as wool-growers must broaden their ambition and increase their profits by becoming mutton-producers as well as wool-producers. Fleece and flesh equally offer a relief from the depression in flock returns. There may still be a place for diminutive carcasses turning off phenomenally heavy percentages of fleece; but that place is not the farm whose owner cannot afford to follow theory beyond the limits of profit. Good mutton can be made as cheaply as good beef, and will sell as readily. The fact that we do not find as large a percentage of the former in the markets of the country may be taken as one of the causes of slim profits to flock-owners. The loudest complaints of hard times come from those who are depending chiefly upon wool for their income. Heavy losses, and these forced into prime condition at the earliest possible moment, and with more pounds of wool, improve a surer road out of present depression than will be found in convention resolutions, be they ever so pertinent, or defenses against foreign competition, even though placed at figures dictated by the most sanguine advocates of high tariff."

Sugar-Making in Western Kansas.

EDITOR KANSAS FARMER:—I read in the KANSAS FARMER, of December 27, a communication from Mr. G. W. Glick, and headed, "The Only Hope for Western Kansas." While I endorse the most he says in the communication and think with him that cane culture and sugar-making in western and central Kansas would be far more profitable than farming as it is now carried on, but there are to my mind a few points in connection with sugar-making out here that will bear a little discussion. Any industry of the manufacturing class, in order to be a means of prosperity and lasting benefit to the surrounding country, must benefit those that contribute the material to carry it on; in other words, the profits should be shared in a reasonable ratio by all engaged therein. We have for precedent what has foregone, that is about \$2 a ton for cane delivered at the factory, seed included. If any farmer thinks he has a bonanza at that price, let him try it for one season, and I believe he will change his mind. If cane yields a profit of \$4 or \$4.50 per ton when worked up, it seems to me that the factory could and should pay more for it. If the factory would flourish and have the farmer take an interest in it, then those controlling the factory must make it to the interest of the farmer to do his part.

I don't believe in capital always taking the lion's share, as it usually does. The farmer, with a very few exceptions, has no capital to build sugar factories with, but let capital come in and build and put in motion the sugar-making machinery, and give the farmer a fair price for his cane, and you will see how we poor fellows will rustle. Oh! wouldn't we, though?

Senator Plumb, in one of his speeches, says the farmer can plant, cultivate and harvest forty acres of cane with only himself and one team. Let us see if that be so. One man and a good team may, to the exclusion of all other work, plant and cultivate forty acres, but when it comes to harvest, how will it be? Suppose we have ten tons to the acre, then on forty acres we would have 400 tons; at \$2 per ton delivered at the factory that would be \$800, a very good showing, if he can harvest alone; but can he? Now suppose we haul two miles to the factory, and two tons to the day, we will be doing about all we can, and to cut and deliver the crop of forty acres would consume 200 days, about six and one-half months. But some says, plant in succession. Well, try it and see if you can get your crop to mature according to time of planting. I don't think Senator Plumb had much experience in harvesting cane for sugar-making. In my experience of the past twelve years in central and southern Kansas, I believe that the very richest cane can be raised here with scarcely any failure of crop, (even in the driest seasons). Cane, when properly planted and well cultivated, will make a good crop, and the hotter the season the richer the cane will be if cultivated often, which it should be until it gets too tall for the cultivator.

My advice to capital is to come out and build sugar factories, and thereby help the farmer to help himself, instead of sending money here to loan to the farmer at 9 or 12 per cent, which is being done. The farmer is compelled to borrow on account of loss of crops, and all the time getting poorer instead of richer. All the farmer wants is a little profit for his hard work and you will see Kansas bloom and blossom like the rose. My prediction is that the first capital, and in fact all for that matter, that engages in sugar-manufacturing will be richly repaid and ultimately find it the best investment in the land. So come with us and we will surely do you good. M. F. HARRIS.

Larned, Pawnee Co., Kas.

A Business-like Offer.

For many years the manufacturers of Dr. Sage's Catarrh Remedy have offered, in good faith, \$500 reward for a case of Nasal Catarrh which they cannot cure. The Remedy is sold by druggists at only 50 cents. This wonderful remedy has fairly attained a world-wide reputation. If you have dull, heavy headache, obstruction of the nasal passages, discharges falling from the head into the throat, sometimes profuse, watery and acrid, at others, thick, tenacious, mucous, purulent, bloody and putrid; if the eyes are weak, watery and inflamed; if there is ringing in the ears, deafness, hacking or coughing to clear the throat, expectoration of offensive matter, together with scabs from ulcers; the voice being changed and has a nasal twang; the breath offensive; smell and taste impaired; sensation of dizziness, with mental depression, a hacking cough and general debility, you are suffering from nasal catarrh. The more complicated your disease, the greater the number and diversity of symptoms. Thousands of cases annually, without manifesting half of the above symptoms, result in consumption, and end in the grave. No disease is so common, more deceptive and dangerous, or less understood, or more unsuccessfully treated by physicians.

The largest meteoric stone on record is preserved at the Melbourne museum. It weighs twenty-five tons, and fell in 1860.

In the Dairy.

The Private Dairy.

EDITOR KANSAS FARMER:—I have noticed with interest in recent issues of the KANSAS FARMER, several short and to the point kind of articles from that veteran dairyman and writer T. D. Curtis, formerly of Utica, New York, now of Chicago. Mr. Curtis is last remaining of the trio in the dairy literature of this country, which included the Hon. P. A. Willard and Prof. L. B. Arnold. Both of these have passed away, the latter within a year or two and the former a year or two earlier. For years the three worked side by side in the cause of improving and elevating the art of dairying in all its branches. Mr. Curtis is one of the few writers on dairy subjects who is trying to educate the private dairyman to better methods. While he knows as much about cheese factory and public creamery methods and advantages as any writer in this country, he remembers that only a small proportion of the butter produced in this country is made in public creameries, and on that account it will not do to forget the private or farm dairy; hence a good deal of his effort has been in the direction of trying to improve it. An article headed "The Butter Standard" is one of the articles of his noticed in the FARMER. It contains some good points—many such. I will, however, take exception to one sentence in that article, viz.: "Our best private dairymen adopt creamery practices, and in many cases make as close imitation of creamery butter as they can." Now, I claim it can with equal correctness be said that when a public creamery produces a good article of butter, it makes an imitation of good dairy butter. Good butter is good butter, and need not be referred to as imitating any system of butter-making, in the sense of appropriating any of the reputation of such system. But Mr. Curtis did not mean that kind of imitation. He simply meant that it was good butter, such as public creamery butter is when made in accordance with best methods.

My main object in making even a show of criticising his article is to call attention to the much truth it contains. The readers of the KANSAS FARMER will do well to carefully consider anything from the pen of T. D. Curtis.

Clinton, Iowa. F. W. MOSELEY.

Hints to Butter-Makers.

The requisites for first-class butter-making are good cream and acquired skill. With one and not the other it will be impossible to accomplish the desired effect. Cleanliness is a very important factor, for with pure cream and skilled labor, and unclean, sour and dirty utensils for making butter in or holding cream, the other good effects must suffer materially in the final results. How easily these foreign flavors are detected by expert buyers, none know better than sellers of dairy products who have to contend with buyers' many complaints and rebuffs.

Many thousands of dollars could be saved to the dairymen and creamerymen if more cleanliness and care were exercised; one, or two, yes three, four and five cents, off a pound of butter on a line, as has been the case, amounts to a great many dollars, and in the aggregate amounts to thousands, a great part of which could be saved; in fact, would have been clear gain had some of these apparently minor effects been watched closely and avoided. Every seller of milk should have proper facilities for cooling and keeping it cool while the cream is rising; and this is a feature which every buyer of cream should see

that parties from whom they buy their cream is supplied with. The practice of gathering cream every second or third day has led to serious losses to creamerymen, first in quality, and this naturally in the value of the goods made. The cream should be gathered once a day, and the gathering thoroughly assimilated before being churned.

The make and style of packages to be used is also very essential. Dealers, urge the use of hand-made tubs, a tub which is both air-tight and pickle-tight.

Ash tubs are preferred, because they are in more general favor, and tubs of uniform size and to hold about fifty-five pounds and upwards are recommended, as they meet the requirements of shippers, and at the same time answer the purpose of local buyers. In packing, fill the tub within half an inch of the top, then cover with a clean new piece of bleached cotton cloth well soaked and washed in brine. On top of this cloth put a paste made of pulverized salt and water, which hardens and forms a crust, making it partially air-tight, and thus prevents the top from becoming affected by air and heat. Another thing recommended is, three tin strips to fasten the cover, instead of hoops or nails.

Country shippers of produce are advised to send their butter to this market just as they receive it. In most cases the result will be more satisfactory to both the shipper and the buyer. Those who are not thoroughly versed in this business, and do not give it their sole attention, generally make a failure by endeavoring to work a fair lot of solid butter, for the purpose of improving the quality by the aid of machinery and coloring. A good quality of solid butter, no matter if not straight and uniform in color, can, if sweet, be sold to retail dealers, but after going through the patent process and coloring they refuse to buy it. Shippers and packers refuse to buy except at prices paid for low grades, as it is not worked to their satisfaction, and they prefer to do their own repacking.—Orange Judd Farmer.

CLOVER SEED AS A CROP.

By George E. Lidikay, of Wellsville, and read before the Farmers' Institute, at Gardner, January 4, 1889.

I have had more or less experience in raising clover and in saving the seed during the past forty years. Harvesting the crop thirty-five and forty years ago was more tedious than now; then we cut the hay with the mowing scythe and a few years later we cut the same with the scythe and cradle, swathing it and letting it lie on the ground until it was thoroughly rotted, then it was hauled to the barn—if we were fortunate enough to have one—if not we took it to some more fortunate neighbor's barn and mowed it away very dry, and then put it on the barn floor and with horses tramped the seed off the straw. The seed and chaff was then sacked and afterward sown without being separated. A few years later a machine which we called "the ground hog" came into use for hulling the seed after the same had been separated from the straw.

The huller or "ground hog" would be fastened to the barn floor and a little four-horse power attached to it with a belt and fly wheel or by the old-style tumbling-rods. When the hulling was completed, which was all that this machine did, the old-fashioned windmill was brought out and the seed separated from the chaff. Later the Burdell huller and separator came out, and we farmers thought this a great departure from the old style.

I have been sowing clover seed on my own account for the past twenty-five

years, excepting a few years of that time, and while I have kept no special record of the results, my impression is that I have been reasonably successful, and taken as a whole that it has paid me well. The most of my experience has been in the State of Indiana. With but few exceptions I have sown the clover seed with fall wheat and the season for sowing it was from any time in February to the latter part of May. My failures have been with late sowing. I have confined myself almost wholly to the common red clover, and for practical purposes I consider it the most valuable, not only as a seed-producer, but also as a hay-producer. As a fertilizer it has no equal in the grass family.

The mammoth or sapling clover yields seed only from the first crop, differing in this respect from the little red clover, which yields its seed from the flowers of the second crop. The sapling clover makes a very heavy growth, and if not pastured late in the spring is too liable to be killed when it is cut for seed, on account of the resulting exposure to the hot sun at a time when we may reasonably expect to have dry hot weather in this climate.

Then, too, it is often the case that the growth is so rank that it smothers itself and requires resowing. It is said to yield somewhat more seed to the acre, but the quality of the hay is not as good, and for these reasons I have preferred to sow the common red clover.

The little red clover is cut for hay at a time when we may expect the earth to contain sufficient moisture to start a new growth and in a short time make it protect itself from the hot sun; and again, we are more likely to have favorable weather for its continued growth at the season when it is cut for seed. In this climate, where it is necessary to diversify the crops, no farmer can, if he consults his interest, well afford to be at any time without a good patch of clover, for generally the seed alone will make a sufficient return in money to average well with any other kind of crops, besides if it perchance should fail to yield sufficient seed it is likely to furnish plenty of good hay and pasture, besides enrich the ground as no other crop will.

Then, too, it is better for the farmer to save plenty of home-grown clover seed than to buy seed, concerning the quality and age of which he is generally ignorant, and when he has it to buy he is more likely to sow too small an amount of seed per acre and a fewer number of acres.

I have lived in Kansas since 1832. When I came in possession of the farm which I now own, I had but seven acres which I could call a clover field. I did not save the seed the first year on account of the uncertainty of getting a huller. The next year I cut a part of the patch and sowed some seven bushels of the seed. The following spring I sowed about fifteen acres more and the year of 1884 I saved twenty-one bushels. The spring of 1885 I sowed fifty acres more, and in the fall of 1886 I cut and saved ninety-six bushels of seed. During the spring of 1886 I sowed seventy acres and got a fine catch, but the season being so dry and hot it nearly all perished. The following spring I sowed again on the same ground stubble. I again succeeded in getting a fine stand, and this last season I threshed from sixty-eight acres 150 bushels of very fine seed. The summer of 1887 was so dry I did not get any growth after cutting the hay, so that I did not get to save any seed. Last spring I sowed twenty-eight acres; sowing it in April, except the resowing of the seventy acres which perished from drouth; this I sowed in February. The twenty-eight acres sown last April made

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the finest growth of clover that I have ever seen, cutting in July nearly one ton of hay per acre, and the second growth was also very fine.

Now as to clover as a seed crop: For this last fall I can give you some figures as to the result of the sixty-eight acres. The total expense, including harvesting and threshing, \$254. Amount realized from the sale of 150 bushels of seed, \$657, leaving me a balance of \$403. I mowed one and one-half tons of hay per acre which I think is worth \$3 per ton, making \$306. The pasture received before and after cutting I estimate at 25 cents per acre, or a total of \$17, which, together with the hay and seed, gives me a grand total of \$726 for the clover crop of sixty-eight acres harvested the fall of 1888, an average of \$10.67 per acre.

We will suppose that the crop had been a short one, so far as the seed is concerned, and count the cost of harvesting and threshing the same in proportion; supposed yield, sixty eight acres, sixty-eight bushels of seed, which at \$5 per bushel would bring \$340, and the expense at \$115, would leave \$225 for the seed. You may, if you please, estimate the hay and pasture at a half crop, and it will give us a grand total of \$386, or \$5 70 per acre, without any consideration being given to its value as a fertilizer, and I am sure this would be more profitable than renting ground to strangers.

Poisonous snakes are not able, as a rule, to poison themselves or each other.

When a threatening lung disorder,
Shows its first proclivity,
Do not let it cross the border,
Quell it with activity.

Many a patient, young or olden,
Owes a quick recovery
All to Dr. Pierce's Golden
Medical Discovery.

An oyster-grower at Keyport noticed that one fine specimen was spoiled for market by having a piece measuring three-quarters of an inch broken from its shell by the dredge, so that the mollusk itself was exposed. He restored it to the bed, and found that by the next summer—this was in October—the animal had completely restored its house.

Would you know the keen delight
Of a wholesome appetite,
Unrestrained by colic's dire,
Headache's curse, or fever's fire,
Thoughts morose, or icy chills?
Then use Dr. Pierce's pills.

Dr. Pierce's Purgative Pellets—the original and only genuine Little Liver Pills; 25 cents a vial.

Correspondence.

Let us Keep Our Credit Good.

EDITOR KANSAS FARMER:—Some time ago I saw in your paper,—and I have seen the like in others—some financial theories advanced in the name of, and for the benefit of the poor farmer, that to my mind ain't sound, and have the musty smell of the politician's shop, rather than the fresh perfume of the country. I have always noticed that when the politicians want to get a fat place, they begin by patting us on the back, telling us "what a poor condition we are in, and how they are going to run for the Legislature, and make laws to jump on the capitalists, and give us free rides and free money."

Now I am no "spring chicken." For more than a quarter of a century I have studied economic questions. When they wanted to inflate the currency, I wanted them to inflate my capital if they knew how. I could get currency enough if I only had capital enough; and so it is about this reducing rates of interest. Plenty of loose or loanable capital,—not fixed capital—and safe security is the only thing that ever did or will make money loan cheap, and putting too much of what capital we have got into fixed capital, or passing laws that hurt our credit, will make interest high. In a new State like this, we all come here about as poor as Job's turkey, and when we get anything we put it into fixed capital to make us homes, and hence ourselves as a State. We have so little money to loan, that if it were not for money from other States, money would be worth 4 per cent. a month all around. The price of money, so to speak, is regulated like corn or any other commodity; when scarce, it is high; when plenty, it is low; when credit is good it is plenty, when our credit is low it is scarce; and I have watched the papers, and I never yet learned where any law of any Legislature, ever fixed its price or value for use. If any of you younger men have, I would like to know when and where. In some States in the East, they have got heavy penalties on over 6 per cent. or 7 per cent. for money; yet if I read right sometimes money of ~~some States~~ ^{some States} is loaned at 2 per cent. per year, ~~and at other times, when it is in great demand, it loans higher than here, say 4 per cent. a month.~~ Now we have got a law that lets us off from paying over 12 per cent., yet lots of fool farmers are paying 24 per cent.

What I want to say is, I don't want my farmer friends to be deceived by their would-be politician friends. Their theory seems to be, if you make it difficult and expensive to collect a debt, the farmer will be helped, while I tell him he will suffer for it, if in debt now, or he wants to borrow hereafter. Take those Eastern money loaners before their day; 24 per cent. was our low rate, 48 per cent. was our high rate; they induced capital out here from money centers and now our low rate is 7 per cent., our high rate 9 per cent. on mortgage loans. Isn't this so? Suppose you pass obstruction laws to delay collection, won't they get their money home soon as possible, and send it where people don't try to beat the contract by changing the law, and leave us to our limited home capital at higher rates? But you tell me these lawyer friends of yours will fix a low rate for local money and heavy penalties. That has been tried over and over and never succeeded yet. If they fix a price on corn and its too low, you will stop raising it won't you? So if they fix a rate on money too low, and it can't be got over, there will be no money to loan; they will use it to boom real estate, and make a thousand with one hundred as they did in 1836. Why not have a law that no man shall make over 10 per cent. a year in real estate.

Now, Mr. Editor, I have some more I could say, but I'll wait for the other side. My theory is: make all debts secure, and collection prompt, then we get low rates; make them insecure, or hamper collection, and you make rates high. I claim logic and experience agree on this. We all know when a store keeper loses one quarter of what he trusts out because of bad collection laws, we who buy of him and do pay are charged enough to cover these losses, and it is just so with money; the greater the risks, losses and delays, the more he will charge if he loans at all. But if the politicians

think they can fix a limit to the rate of interest by law, let them try to keep it down to 12 per cent. by law for two years, and see how it works, and not try to fly in the face of monetary laws that have existed since borrowing and lending began—that any law that is a blow at credit, is twice as hard a blow at the borrowing or debtor class, as it is at the creditor class; and upsetting laws that existed when debts were made, is the worst blow that credit can get.

POOR FARMER.
Topeka, Kansas.

Suggestions to the Legislature.

EDITOR KANSAS FARMER:—I see some of the papers in the State are in favor of building a Governor's mansion at Topeka. The Governor works for the State about 150 days in the year at \$20 per day. The Representative or Senator that votes for such a bill should be soundly thrashed and sent home or thrashed when he gets home. The act creating a State bounty on sugar should be repealed this winter, as the tariff on sugar is enough protection. One ton of cane, \$2; cost of manufacturing, \$1; total, \$3. One hundred pounds of sugar at 5 cents, \$5; sixteen gallons of sirup at 20 cents, \$3.20; State bounty of 2 cents per pound, \$2; total, \$10.20. Total cost, \$3. Profits per ton, \$7.20.

God knows the farmers can stand a good deal, but it was the last straw that broke the camel's back, and we can not stand so much extravagance.

This has been a very mild winter so far; stock looks well, corn and hay are plenty to feed all of the stock in this part of the county. I wish the KANSAS FARMER success.
G. W. HANNAN.
Center Ridge, Woodson Co., Kas.

Reform the Interest Laws.

EDITOR KANSAS FARMER:—Press on in your efforts to reform our interest laws. I inclose a slip from one of our Marion papers stating that one of our business men charged \$54.50 for the use of \$100 for three months. A widow came to Marion and borrowed \$218, gave a note for \$300 due in four months, secured by chattel mortgage on grain; before the note came due, the lender went in her absence and hauled the grain to market, got his money, then wanted her to pay him for hauling the grain to market. A farmer went to another of our prominent money-loaners, and when asked his terms said, give me a well secured note due in one year for \$100 and I will give you \$40. The above are samples of the way money is loaned in this county. Our banks charge 2 per cent. a month and take the interest in advance, which makes it about 3 per cent. a month, while the law limits interest to 12 per cent. There is no penalty except to collect back the surplus interest, so that the lender runs no risk in charging all he can get. If we had a law like Pennsylvania, that makes unlawful interest forfeit the whole debt, loaners would be more careful.
J. B. DOBBS.
Antelope, Marion Co., Kas.

Corn-Raising.

EDITOR KANSAS FARMER:—During the past two years the best corn in Marshall county was raised from deep single listing with least possible cultivation, and the best results have been obtained where the cultivation has been shallow. Ground that was plowed deep grew scarcely no corn at all, for the good reason that as the dry weather continued the soil simply became a bed of dust. Like results came of double listing. The lesson of the drouth is, list deep, plant the corn thin, not more than one grain in a place; then if possible cultivate altogether with harrow, if not, cultivate shallow, "lay by" early, because late plowing is simply throwing away what moisture you have. The roots, too, if cut or disturbed during drouths never set again. The truth of this was clearly shown here by there being on the breaks of the draws, where there is ordinarily no corn, a fine yield, because the subsoil there would not permit the shovels to penetrate deep enough to touch the roots or loosen the soil and leave it in condition, so that every particle of moisture would evaporate under the scorching July sun as it did upon the level in the good soil where the deep plowing had had its day. Ground, too, that had been highly manured produced little or nothing, for the reason that the manure rendered the ground loose and permitted the evaporation to go on rapidly.

The lister has given satisfaction, and next spring will witness more of them used than ever.
JAMES MONTGOMERY.
Frankfort, Marshall Co., Kas.

How to Raise Corn.

EDITOR KANSAS FARMER:—It is not what we know that affects results, but what we do. We may possess a high grade in our scientific knowledge, but that knowledge without physical force will not destroy a single weed or a surplus plant or induce some useful plant to put on a more vigorous and healthy growth. A man may possess all the learning that is taught in our educational institutions, but that learning will not fill an empty stomach or procure raiment to cover our shivering bodies. Knowledge without application and the assistance of physical force is dead. But knowledge with the aid of a little muscle when rightly applied becomes a very necessary adjunct and a very useful companion. If a farmer has only a limited knowledge of how plants grow and couple that little knowledge with a good deal of hard work, he can be reasonably successful, perhaps more successful, without the aid of weather prophets than with. Corn-growing in our country (in the corn belt, as it is generally termed) is now the principal business of our farming people and upon which the general business of our country depends for its profits or support, and yet the business to a great extent is a failure, there being but few engaged in the business that are reasonably successful; not because our farmers are unlearned, for the most of them have a fair education and many are liberally educated and not a few that are proud of the offices B. C., B. A., and occasionally one entitled to LL. D., yet our failures are caused through ignorance more than anything else. Professor Blake tells us it is because we do not consult him about what the weather is going to be and what kind of seed to plant, whether wheat, oats or corn, and when to plant, notwithstanding it is written in the Good Book that "There shall be seed time and harvest," and nature suggests that the time of year to plant is when vegetation begins to start into life and if planted at the proper time and rightly cared for we are sure to have a bountiful harvest. What a future season may be is beyond the province of man to know, for just as soon as two seasons come around exactly alike we will likely experience that ~~the~~ ^{we} read about "When the elements shall melt into fervent heat," etc. This earth belongs to a system of worlds that are perpetually changing; these changes are that which form our seasons, and the man is or must be a little off his base that conceives the idea that mortal man can possibly calculate what a season is going to be.

If we expect to be successful in raising a corn crop it is necessary to know something about what makes the plant grow and how to treat it to make the most successful growth. As the corn plant is a strong feeder, and left without attention, although the ground be clean and nothing else growing, will soon exhaust all moisture from the soil and exhaust itself and produce little or nothing in the way of crop; but if properly cultivated and other conditions the same the crop will be abundant. But it seems that the proper cultivation is the unknown quantity. The corn growing in a natural way will fill the earth with innumerable roots which, let rains be abundant, soon take up all the moisture and pass it off in vapor and stand starving for more water long before the next shower, and in many places die because of self-exhaustion, when if the cultivator had been used and half the roots had been cut loose from the plant it would require twice as long to drink up the same amount of moisture and would withstand a longer drouth without injury. Still better if the cultivator be run deep, and then if the ground be properly plowed the undisturbed roots will strike deep down for more water when the surface becomes dry, and the plant remains vigorous and in good condition to produce a bountiful crop.

And now one word about the time to plant, and I can only give my experience in this part of the State. If you have an early variety (a 100-day variety), count seventy days from the 10th of July and it will generally give you the right time, which makes the last day of April the proper time to plant—the time you should have all your crop planted. This rule for time of planting together with having the ground well plowed

in the spring, if fall plowed re-plow before planting, and plant with a drill set to plant fifteen inches apart, has made with rather ordinary cultivation, good corn crops for me. I plow deep and cultivate deep and the reason for which I have tried to explain above, but it makes a newspaper letter too long to do it very explicitly.
J. B. MOSHER.
Lawrenceburg, Cloud Co., Kas.

Out in Pawnee County.

EDITOR KANSAS FARMER:—The KANSAS FARMER is the first paper that is read in my house, and I never allow a number to be destroyed. I find plenty who want them to read. Mr. Glick's letter in No. 52, December 27, is as near the truth as anything I have seen written in a long time. I think his head is quite level on that subject, also Mr. Hesselton's in the same number on listing. I would add one suggestion—that listing should always be done east and west to prevent the wind from blowing the corn out or covering it with sand and dust. I saw several fields totally ruined last year in that way. Besides, the ridge protects the young corn when the rows are east and west, and if Mr. Hesselton will use a single lister and follow with a one-horse plow or bull tongue to deepen the soil in the furrow he will find his corn will grow much faster when young. I find the single lister and one-horse planter much better for my use than the combined lister, and I also find that the more work is done in the corn fields before planting the less is required to be done after. But when we take Mr. Glick's view of the subject, that corn is not a profitable crop in southwestern Kansas, we need hardly bother about how we put it in.

But I differ with Mr. Glick on that point. Although I have never raised a large crop of corn it has always paid me as well as any crop I have raised. I would as soon think of letting my rye or millet stand and dry up as my corn fodder and go out on the prairie and cut prairie hay to winter on. One acre of fodder cut in season is worth twenty acres of dry stalks in the fields to me; I think as much of my corn fodder as I do of my corn, and it is a fact that I have never known any injury done to cattle by eating all they want of them. Mr. Elkington's statement might be true enough if this land had been plowed one foot or more deep and well harrowed and rolled down before planting; but not otherwise I think. But to go back to Mr. Glick's proposition to raise sorghum, milo maize, rice corn and Kaffir corn, and we need not give up either hogs, cattle, sheep or horses, all of the above crops are sure, and they are equal if not better than corn even in more favored climates, not for sugar-making alone, for I do not think that I could afford to haul and sell sorghum for \$2 or \$2.50 per ton even on to the adjoining farm, if I could get stock to feed it to—especially hogs. I consider sorghum far superior to corn, although I have always raised and fed rye in connection with it, and as long as I raised and fed hogs on rye and sorghum I never had a sick hog or pig, but always had a finer and cheaper lot of hogs, both young and old, than any man who fed corn exclusively, and the last two years without sorghum I have not made a dollar on hogs and my herd bears no resemblance to the sorghum-fed animals of the former years.

W. J. COLVIN.

Larned, Pawnee Co., Kas.

Weak eyes and inflamed lids indicate an impure condition of the blood. The best remedy is Ayer's Sarsaparilla. It vitalizes the blood, regulates the secretions, and expels all scrofulous humors from the system. Try it. Price \$1. Worth \$5 a bottle.

We learn that Campbell University has a larger attendance than ever. It is successful because the work is thorough and practical, and expenses are low. The next term will begin Jan. 22. Send for catalogue. Address E. J. Hoenshel, President, Holton, Kas.

How to Cure Hog Cholera.

After a long study of this disease and great expense, I have found a remedy which I warrant to cure 90 per cent. of the hog cholera, and which I will send to every person who sends this advertisement and 50 cents to pay for this advertisement and postage. Address D. Eberwein, Chapman, Kas.

See Tincher's cedar ad. in 2-cent column

Patrons' Department.

The KANSAS FARMER wants to aid every worthy movement which has the agricultural interests in view. In that spirit we have granted the use of a column every week for the Patrons of Husbandry, to be used by them in their own way and for their own purposes. The State Lecturer, John G. Otis, will have charge of it for the present. This week he presents the following:

The Lecture Field.

Our labors in Osage county have resulted in organizing anew two Granges, which will make four Granges now in working order in this county and the region of country tributary to Overbrook. The co-operative enterprise here is helping to revive an interest in Grange matters in this locality, and it is proving a benefit to all who have taken an interest in it. We trust it may prove an eminent success and result in much good to the order.

Corn is selling at a very low price, likewise cattle and hogs. We often ask ourselves why it is that farmers may not have a minimum schedule price for all farm products? Why not go on and perfect our organization in such manner that when the National Grange meets each year they might send out a full schedule of minimum prices on staple farm products each year? Say take the actual cost price for a period of ten years, and then add 10 per cent., computing rental value of land at \$3 per acre, labor at \$1.50 for ten hours' work of a man, and \$1 per day for use of team and tools? Of course in this schedule we would need to have three divisions—the eastern, western and central, or the Atlantic, Pacific, and Mississippi Valley, specifying the States embraced in each division. When we look around us and see the gigantic combinations that have been effected during the past few years, and how perfect and united they all are; is it impossible for the intelligent farming population of these United States to say, "We will all agree upon a fair, reasonable price for our staple farm products and will simply 'not sell' unless we receive it?" How long does any one suppose we would have to hold our corn, wheat, cattle, hogs or anything else off the market, by one united move, before we should command a fair and reasonable price? It would not be thirty days on any product, if we all acted in unity and stood firm for our "schedule price."

J. G. OTIS.

WEATHER PREDICTIONS.

By Prof. C. C. Blake, Topeka.

[Correspondence on account of this Weather Department should be directed to C. C. Blake, Topeka, Kas. See advertisement of Blake's Weather Tables on another page.]

For the last three weeks we have had severe sickness in our family, so that we have not been able to do much but take care of the sick. But we notice from the daily reports of the Signal Service that the predictions in our "Tables" for January are being pretty well verified in nearly every State. We think that when the month has ended the verification will average 90 per cent. This indicates that the still greater extremes predicted for later months will also prove to be nearly correct.

The weakness and debility which result from illness may be speedily overcome by the use of Ayer's Sarsaparilla. This is a safe but powerful tonic, assists digestion, regulates the liver and kidneys, and cleanses the blood of all germs of disease.

Money.

Write or call on the National Loan and Trust Co., of Topeka, for loans on real estate. Rates reasonable and terms favorable.

Bulls for Sale.

Fifteen choice Short-horn bulls, from 8 to 20 months old; also a choice number of heifers. Will sell at reasonable prices on terms to suit purchasers. Address F. B. Babst, Dover, Shawnee Co., Kas.

PUBLISHERS' PARAGRAPHS.

Many of our patrons are not aware that the KANSAS FARMER has moved from its old and cramped quarters to its present commodious location in the Kansas Farmer Building, corner of Fifth and Jackson streets, one block west of the Topeka post-office.

Are you conscious of having done a good act in this new year of 1889? If not, send us one or more new subscribers and you will deserve our gratitude for the kindness.

Reputable advertisers are shrewd business men and advertise, as a matter of business, simply because it pays them to do so. Consequently we feel encouraged by receiving so many orders from old customers who have tested the merits of the KANSAS FARMER as a medium for reaching the people.

A valued subscriber from New Chillicothe, Dickinson county, in renewing for 1889, writes: "I take several agricultural papers, but the KANSAS FARMER is the best and is worth more than a hundred dollars a year to me." He promises a number of practical articles from "Old Fogey," which will be thankfully received.

The management of this paper have been greatly annoyed at the delay of the mails, because we make extra effort to have our papers reach the subscribers promptly on time. The trouble is mainly with the Topeka postoffice, whose force is not large enough to handle the enormous mail matter at this city. However, we are promised more and better service, and our impatient subscribers may expect more promptness hereafter.

We want an active, earnest, intelligent and good-mannered person at every post-office in the West as a permanent representative to assist us in extending the circulation of the KANSAS FARMER. We want such agents to be in sympathy with the objects and purposes of the paper, and by their language, manner and general deportment to represent it fitly, as we publish a clean, progressive paper.

We are in receipt of a lengthy and spirited communication from that celebrated Kansas cattle dehorner and inventor of the popular "dehorning chute," E. P. C. Webster, Marysville, Kas., in which he proceeds vigorously to the defense of the superiority of his methods and his chute. Mr. Webster naturally feels tender on the subject of his own production which has won a wide sale and proven a great success consequently warmly resents the action of Mr. Haaff; however, it is not necessary to publish his letter to demonstrate the utility of his chute, which is winning its way fast enough upon its own merits. At present our space is too much crowded to give place to much controversy.

The rush of new subscribers has been so unprecedented this year, beyond our expectations, that after this week we shall be unable to supply back numbers for the first two issues of this year; however, subscriptions may begin any time. Don't ask for No. 1 or 2 of this year.

We are pleased to acknowledge the receipt of the following catalogues: Cole's Garden Annual for 1889, Pella, Iowa; Catalogue of Northern-grown Trees, by J. W. Miller & Co., Freeport, Ill.; Illustrated Catalogue of Field and Garden Seeds, by James W. Bonk, Greenwood, Neb.; Seed Catalogue for 1889, Samuel Wilson, Mechanicsville, Pa.

It may be of interest to our friends in northwestern Kansas to know that Judge D. C. Nellis, formerly of Ellis county, has associated himself with the KANSAS FARMER company as one of the publishers of this paper. He served eighteen years apprenticeship on the farm and resided twelve years in western Kansas, and was County Attorney for Ellis county eight years and was the first Judge of the 17th Judicial district. Four years ago he removed to Topeka, and now devotes his attention to the management of the KANSAS FARMER.

Inquiries Answered.

MIXED FEED.—Millet and sorghum may be mixed in sowing for feed.

EUCALYPTUS tree seed may be obtained from Ellwood Cooper, Santa Barbara, Cal.

ALLIANCE.—The annual meeting of the Kansas State Farmers' Alliance will be held at Topeka the first Wednesday of next month. If our inquirer will attend that meeting or wait for a report of its proceed-

ings, he will learn what he wants to know about officers, and how to organize a sub-Alliance.

VENTILATION.—Directly above an ice-house is not a good place for a granary, and the ventilation should not be through, but away from the granary.

GRAFTING.—Nurserymen are not agreed on the virtues of crab root grafting. Our own opinion is, that the best roots are those of hardy sorts that have been tested in Kansas, and we would take the word of old and reliable Kansas nurserymen.

PRIZE FOR TREE PLANTING.—If E. G. will address Hart Pioneer Nurseries, Fort Scott, Kas., he can learn all about the Kansas City Star offer.

YOUNG MARES.—We do not believe in breeding from young animals. A mare should not be bred until she is 3 years old, and 4 or 5 would be better.

MILK MAIZE.—The KANSAS FARMER has published a good deal on this subject lately. Write to R. B. Briggs, Great Bend Kas., for detailed information.

SQUASH BUGS may be destroyed certainly by hand, but gardeners do not yet know of any other certain remedy. By beginning early and examining the under side of the leaves a large number may be destroyed in the egg.

CEDAR TREE SEED.—Seed of red cedar is difficult to propagate until it has been in the ground two years. But by preserving the seed in moist sand through one winter and sowing under favorable conditions in moist, sandy soil in spring, some of the seeds will sprout and grow. A hot-bed is a good help in such a case.

FRUIT TREES FOR KANSAS.—Following is the list of apple trees recommended by the State Horticultural Society for northern Kansas: *Summer*—Early Harvest, Carolina Red June, Red Astrachan, Cooper's Early, Duchess of Oldenburg. *Fall*—Maiden's Blush, Rambo, Lowell, Fameuse, Grime's Golden. *Winter*—Wine-sap, Ben Davis, Rawle's Genet, Jonathan, Missouri Pippin, Willow Twig, White Winter Pearmain, Rome Beauty, Smith's Cider, Gilpin.

A NEW OLD FIRM.

C. B. Hamilton & Co., of Topeka, bookbinders and printers, are an old firm well and favorably known throughout the State, having made books and blanks for nearly every county office in the State. Over a year ago, the Geo. W. Crane Publishing Co. purchased the business and Mr. Hamilton retired for much-needed rest; but now he has opened out his establishment again and desires the patronage of old and new customers for every conceivable kind and style of printing, bookbinding, legal blanks, etc., etc. This firm is one that has done a large amount of business for us and we cordially bespeak a large patronage for them. We hope that our readers will give them a call when in need of any job printing or binding. All customers may be sure of fair treatment and reasonable prices.

Topeka Weather Report.

For week ending Saturday, January 5, 1889:

Date.	Thermometer.		Rainfall.
	Max.	Min.	
December 30.....	37	27	.27
" 31.....	38	16	..
January 1.....	45	10	..
" 2.....	45	13	..
" 3.....	50	14	..
" 4.....	42	18	..
" 5.....	36	21	..

For week ending Saturday, January 12, 1889:

January 6.....	45	23	..
" 7.....	44	20	..
" 8.....	41	27	Trace
" 9.....	32	19	..
" 10.....	36	15	Trace
" 11.....	37	10	..
" 12.....	37	12	..

NEW ADVERTISEMENTS.

- Ames Plow Co..... Seed Drill.
- Alberty, M. H..... Breeder's card.
- Bolton, V. F..... Cure for sick headache.
- Bianchard, Irvin..... Dehorner.
- Babst, F. F..... Bulls for sale.
- Central Detective Bu..... Wanted.
- roau.....
- Dille, A. B. & Son..... Breeder's card.
- Dille, Mrs. A. B..... Breeder's card.
- Eberwein, V. D..... How to cure hog cholera.
- French, W. H..... For rent.
- Harlow, L. W..... Wanted.
- Highley, Henry G..... Seeds.
- Hanford, Geo. C..... Red cedars.
- Hench & Dromgold..... Cultivators.
- Iowa Seed Co..... Seeds.
- Mansepeaker, W. W..... For trade.
- Miller, C. R..... Stallion for sale.
- Nat'l Loan & Trust Co..... Money.
- Rawson & Co., W. W..... Seeds.
- Rudd, J. J..... For sale.
- Shumway, R. H..... Seeds.
- Tincher, G. W..... Red cedars.
- Tyler, C. A..... Grade Holsteins.
- Tallman & Co., S. C..... Agents.
- True & Co..... Sewing machine.
- Vick, Jas..... Greatest Novelty.
- VanBuskirk, Mrs..... Cockerels.
- Whitacre, W. H..... Colonists wanted.
- Weichselbaum, Theo..... Jacks.

Gossip About Stock.

The *Live Stock Journal*, of London, England, has a very fine descriptive article of the Linwood herd of Scotch Short-horns in America, owned by Col. W. A. Harris, Linwood, Kas.

The manager of the Hope creamery, Hope, Dickinson county, is anxious to know where he can secure a number of good cows for creamery purposes. Some of our readers can inform him.

T. W. Andrews, Rossville, Kas., who bought the right of Shawnee county and one of Webster's dehorning chutes, has prospered so well that he has bought the right of Wabaunsee county.

H. S. Kiddoo, Cabbell, Logan county, received as a holiday present from his father in Mercer county, Illinois, a fine Poland-China sow as the foundation for a good herd of swine in western Kansas.

George E. Brown, of Aurora, Ill., a noted breeder and importer, writes as follows concerning imported horses: "The unusually mild winter has had a very beneficial effect on our horses, which is shown by their steady growth. Those of our own breeding, as well as those imported, have as yet had no check in their growth since last spring. Those imported this year landed in fine condition, and the summer and fall not being as hot as usual they were soon over the effects of the change, and the abundance of grass and other green food started their growth, which has continued uninterrupted; and I am fully satisfied that all that is needed in this country to grow as good horses as can be grown in England is good comfortable quarters where an even temperature can be kept up, and plenty of green and soft food not heating to the blood. On weighing up a lot of our 2-year-old Shires a few days since we found they tipped the beam at from 1,575 to nearly 1,700 pounds, and it is not flabby fat but good hard muscle and flesh, covering great, strong frames, closely coupled and tied together with sinew.... I find that the Shire is becoming more popular every year in the oldest draft horse centers. The great call is for more bone, and the Shires have it to perfection. Nearly every letter from our last year's patrons speaks of this. I also find that stallions, imported as yearlings and grown here, are proving very successful as breeders, being fully acclimated.... Our last two importations of Cleveland Bays are more than pleasing us. In order to secure the very best and purest bred, I have arranged the last few years for having them bought off the mares for us at weaning time, and as a result those I now have ready for service are very uniform in size, color and build. Those coming 3 years old will range from 1,325 to 1,400 pounds in weight, and are elegant in form and have grand action.... We are better prepared than ever before for the increased demand of this season. Our orders are continually coming in from new quarters; the last one was from Aristook county, Maine. We have sold twice the number of horses to Eastern States this year that we have ever done before."

Special Opportunity at the State Agricultural College.

The college will organize at the beginning of the winter term—January 7—classes in common branches of various grades of advancement suited to the wants of students at district schools who want the advantages of the college training. The requirements for admission will be the same as at the beginning of the year in September. Students over 18 years of age may be received upon special conditions, where for lack of opportunity they are deficient in one or more of the branches named. The examination will be held on Monday, January 7, but admission will be possible at any time upon showing sufficient advancement to enter classes already in progress.

The education offered at the college is of the best for all ordinary purposes of life. *Farmer's sons and daughters* have special consideration of their wants in the sciences directly related to agriculture; household economy and mechanic arts are also provided for. An able corps of teachers and excellent equipments make the teaching in every way superior. *Tuition is free.* For further information address

PRES. GEO. T. FAIRCHILD, Manhattan, Kas.

Consumption Cured.

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

I will mail a valuable present to any minister, teacher or friend of education on receipt of address. THOS. J. BRYANT, St. Joseph, Mo.

The Home Circle.

To Correspondents.

The matter for the Home Circle is selected Wednesday of the week before the paper is printed. Manuscript received after that, almost invariably goes over to the next week, unless it is very short and very good. Correspondents will govern themselves accordingly.

Over the Stars

"Over the stars is our rest—our rest!"
Sang a mother. The sun dipped low
Mid glorious crimson bars, slight,
With its dying gleams so richly bright;
And musing and rooking to and fro,
She sang away to the child on her breast:
"Over the stars is our rest!"

"Over the stars" she softly sang
While the dewy twilight fell,
And glimmering shadows came and went
Like fairy dreams, or breathless scent
Of violet and pimpernell;
And ringing in ears of the little one pressed
Fell—plaintively sweet—"our rest, our rest!"

"Over the stars!"—and the wistful eyes
Of her darling oped, demure;
And tender thoughts of by-gone days,
Of buried hopes—then, peaceful rays
Of promises so grand, so sure,
Flashed quickly, with fervor unsuppressed,
Through the mind of her who sang—"There is rest!"

"Over the stars is our rest!"—She paused
And the laughter of childish glee
Burst full and loud, and the welkin rang
With the happy songs her children sang
As they wandered adown the lea
Toward their home, and mother, and supper,
and rest—
And the fair-haired one, in their mother's
arms, pressed.

"Over the stars," the little one chimed,
Baby-like, prattling the lay;
And the mother listened to the note
That the whispering zephyrs caught, aloft—
And chided herself for the way
She has sung, when with cares so sorely op-
pressed,
"Over the stars is our rest!"

"Over the stars!" I wonder who wrote?
Quoth she, as she lighted the lamp,
While its generous rays shot across the room,
And lighted the hallway's somber gloom
Which echoed to childish tramp—
"For here, on earth, by loving hearts blest,
While toiling, and waiting, and watching—we
rest!"

"Over the stars!" I'll not sing again—
"Over the stars is our rest!"
For children's hearts are young and glad,
And God keeps them all from being sad
Or old, betimes, or oppressed
With sorrow that's deadly, and weighty, or
mare;
And may I ne'er hear them sing: "Over the
stars!"
—Minnie Fleeman Fowler, in Albany Journal.

Mankind one day serene and free appear;
The next, they're cloudy, sullen and severe;
New passions, new opinions, still excite;
And what they like at noon, they leave at
night. —Garth.

Man loves knowledge, and the beams of truth
More welcome touch his understanding's eye
Than all the blandishment of sound his ear:
Than all of taste his tongue. —Akenstide.

HINTS TO HOME DRESSMAKERS.

To make the plain skirt which serves as a foundation on which to arrange the draperies of a dress, cut first a front breadth out of English or "shell" cambric, gore this slightly from bottom to top, and fit it by two small darts, slightly curving it on the upper edge. On each side of this is sewed the side gore; the straight edge to the gore of the front, shaping the side gore on the front to fit smooth over the hip. The back width is straight, and the side gores are widened or narrowed to make the skirt at the bottom measure from two and a quarter to two and a half yards, according to the size and height of the wearer. Begin to sew the gores at the top and pare to a slope round the bottom. From three to four inches in length must be allowed, to be taken up by the bustle and the steels. The next step is to put a plain, smooth-fitting facing of the dress material on the right side of the skirt, make this six inches wide, baste it evenly top and bottom, turning in the upper edge, and stitch it round with the machine. Turn the skirt, and you are ready for a ten-inch facing of canvas on the wrong side; cut the canvas bias and it will go on without a wrinkle. Overcast the edges of canvas, facing and foundation together and you are ready for the braid; baste it on the right side, holding it loose, and stitch on the lower edge; turn over on the wrong side and fell to the canvas so that on the right side it looks like a mere cord. Run the casings for your steels; three in number, one quite low down, the top one about eight inches from the top; baste the skirt and try it on, over the bustle you mean to wear with it, to see if it is the right length. Let it be 'the least little bit' longer than you want it, for it will take up a little

in making. If it is the right length you are ready to add the deep, plain flounce over which your drapery is to be arranged, and which must be lengthened to reach the belt or may be shortened, according to the arrangement of the drapery. This flounce is plainly hemmed and a three-inch wide strip of crinoline is sometimes put on to stiffen the hem, the goods hemmed to this and it secured to the material by long blind stitches at the top edge. This flounce is often perfectly plain across the front and back and laid in shallow pleats on the sides to give the appearance of fullness without weight.

I wonder how many amateur dressmakers know how to finish off the bottom of a basque. First, measure by the seams to see that both edges are trimmed alike and to a proper slope; then turn up the edge and baste evenly. Cut a bias facing and, folding over one edge, baste it evenly along on the inside, pulling it a little so the top edge will be straight and without fullness; then turn under and baste the upper edge. Fell down these seams neatly, taking care no stitches are taken through to the right side. Press before taking out the bastings. Open and press all the seams in the waist except the curving side back forms. The high collars new worn require the neck of the dress to be cut out more than did the narrower ones. The canvas collar is cut bias, and slightly rounding on the lower edge—that which is to be sewed to the dress; cover it with the dress material—on the bias, basting down the upper edge on the canvas; baste to the dress, holding the waist toward you, and try on. The wrinkles, if any, will probably be due to one of two things; either the dress is too high, or the neck has been stretched too much or too little in basting on. When just right, face with silk, felling it down neatly. A sleeve that will not fit may sometimes be made to fit by slipping it further to the front, sometimes by cutting out the arm-hole a little in the hollow of the front, and occasionally the sleeve itself needs a little snipping on the lower half. Remember, however, that every thread cut from arm-hole or sleeves seems to diminish the length of the sleeve by two threads.

The most stylish and convenient bustle is the small square cushion stuffed with curled hair, which is often attached to the dress skirt, but is more conveniently worn when furnished with strings and tied about the waist. Two steels only are used in the skirt for ladies of medium height, but tall ladies require three; they are arranged so the lower one is quite low down, and are not so large as formerly.

House dresses are made longer, so as to touch the floor, or drag three or four inches upon it. Such dresses are never, however, worn outside the house. Street dresses clear the ground fairly. It will be a long time, we think, before the inconvenient length which is neither one thing or the other, will be generally adopted.

A worn dress waist may be easily and fashionably remodeled by making new sleeves of silk or velvet, and cutting off the worn fronts in jacket shape, straight down from the collar and square-cornered at the waist line, then adding a soft vest of the material used for the sleeves. If the dress is not already too snug, worn seams can be concealed by stitching again, just inside the old seams. The back of a basque can be stylishly re-made by sewing the seams without pleats, rounding the bottom to rest smoothly on the skirt. The fronts of dresses having soft silk vests simply meet without lapping and are closed with hooks and eyes. To prevent them from unhooking, they are sewed on alternately, first a hook, then an eye, down the length of one front; on the other, first an eye, and then a hook, and so on, to correspond.—Michigan Farmer.

Liquor and Labor.

A correspondent of John Swinton's Paper, the organ of the labor unions, calls attention to the claim of the brewers that they give employment to 500,000 men, and says: "Think of this, workingmen! Half a million men employed in destroying food, in rotting grain, etc., turning it into a poison that makes men fiends, wives widows, children orphans, the industrious lazy, the intelligent numskulls, and sends women and children to work in place of men, thus filling the land with tramps and loafers for the workers to support. If it is true that every person who produces nothing beneficial to

society is no better than a pauper, * * * then all labor employed making, handling or selling such drinks is labor wasted, and people so employed are paupers and makers of paupers. The brewers, distillers, liquor, wine and beer dealers, are among the worst enemies of workingmen; the temperance people are their friends. The former rob them and theirs of their health, happiness and life; the latter want to see every man, woman and child well housed, clothed and fed. The objects of temperance are the abolition of poverty, crime, disease and premature death."

A Cheap Dinner and How to Prepare It.

The New York Press offered a prize of \$100 in gold for the best dinner for four persons that can be prepared for \$1, with a statement of the articles used and the method of preparing them. Fifty-seven persons competed, and the prize was awarded to Mrs. Florence S. Morse, 406 West, 57th St., New York city. Following is the bill of fare with modes of preparation:

Oysters on Half Shell.
Tomato Soup.
Breaded Lamb Chops (five or six).
Mashed Potatoes.
Lettuce Salad. French Dressing.
Charlotte Russe.
Coffee.

COST.

Twenty-four oysters, 24 cents; soup, 9 cents; chops, 32 cents; potatoes, 6 cents; salad, 8 cents; charlotte russe, 16 cents; coffee, 5 cents.

TOMATO SOUP.—Let one-half can tomatoes and one-half pint of water come to a boil. Rub one heaping tablespoonful of flour and one of butter with a little tomato. Stir into the boiling mixture, season with one-half teaspoonful of salt and one-half teaspoonful of sugar. Boil ten minutes. Rub through a sieve and serve with toasted bread. (Cut the bread in thin squares, butter and place in a hot oven.)

CHOPS.—Dip in one beaten egg and fine crumbs, seasoned.

FRENCH DRESSING.—Mix one saltspoonful of salt and one-half saltspoonful pepper in a cup. Add one tablespoonful of oil. When thoroughly mixed add one tablespoonful of vinegar and two more tablespoonfuls of oil.

CHARLOTTE RUSSE.—Made with pieces of stale sponge cakes and flavored whipped cream, piled in the center; or they can be bought for 4 cents apiece.

NOTES.—To make mashed potatoes look as well as taste deliciously, buy a potato-masher that is full of fine holes, through which the potato or any vegetable is easily pressed, and it looks like vermicelli.

Filtered coffee is much better than boiled coffee.

The Evolution of Woman.

If we look back a quarter of a century, there is no change so marked in social and business life as that in the position of women in regard to education, employment, and freedom of action. And this position of self-dependence and self-defence is taken without any question. A few years ago in London it was not just the thing for an unmarried girl to be seen abroad alone even in her mother's carriage. She may now be seen in a hansom. It is not long ago that it was thought unsafe for women to travel without a male protector. A brace of spirited girls may now go clear round the world together in entire safety, and without exciting any sentiment more dangerous than admiration. So far as the world is concerned, they are entirely safe, if they desire to be. Perhaps we might have more cause for anxiety for the well-being of a young man or a couple of young men on the same journey. The world in all civilized lands will treat the woman as she wishes to be treated. It seems to be well settled that women can protect themselves, now that they are permitted to do so, and that they can come as near to supporting themselves as a good many men. Indeed, among the colored women of the South, it is quite a prevalent question whether they can afford to take husbands.

It is a subject of constant speculation, what effect this change of position will have upon the character of the sex. The sex has always despised a man who is not independent and self-sustaining. The men have liked women who were not too independent. Will women be less attractive to men as they become less helpless, and will their in-

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dependence work a subtle change in their nature, which will be increasing as time goes on, according to the laws of heredity? Will the habit of self-reliance, of taking active part in business, perhaps in politics (for a good many women are saying that they will be willing to vote and run, or saunter, for office, if Providence puts the ballot in their hands), put certain other admirable qualities in place of the acknowledged feminine graces and charms? This is an open question, and one much more important than the tariff or the surplus—even the reported surplus of women in certain States. For it cannot be but that the education of women and their increasing freedom of action will as virtually affect this nation as it has already affected the visible aspect of modern life.—Charles Dudley Warner, in Harper's Magazine.

Fashion Notes.

In Paris ball rooms a narrow band of sable fur, tied with a bow of pale blue ribbon, is worn above the diamond riviera.

In millinery green appears to be quite as popular as ever, and shades for winter wear are particularly rich and becoming.

Rich brocades, heavy and thick, are worn with soft, pliable fabrics that drape effectively and modify the severity of the directoire models.

Old fashion-makers say that never in the history of the dressmakers' art have there been such abundance and variety in the materials and designs for evening dresses.

Only those cloaks designed for carriage wear are entirely lined with fur. They are too heavy for walking. The redingote of cloth or velvet, edged with fur, is the fashionable mantle for walking or visiting.

Popular empire veils are of black net, with lace edge, or of real lace with a deep border wrought in scallops. They are worn with small bonnets. The border should drop below the chin, so as not to obscure the wearer's face.

Some elegant brocades have plain silk matching the ground in weave and color. For example, a brocade of ground of silver gray and figured design of old rose, may be made up with either the gray or the rose in plain fabric.

The newest craze of fashionable Paris women is the wearing of a broad, black moire ribbon around the neck. To the ribbon is attached a small hanging watch, on which are inscribed the initials of the favorite hero of the hour.

Plain, but stylish bonnets are of black velvet made in capote shape. They are smoothly covered, and the crown is striped in rows coming forward half way on the brim, of silver or of gold braid a fourth of an inch wide. The top of the bonnet is trimmed with a round cluster of ostrich feathers.

Shallenberger's Antidote for Malaria is the cheapest remedy in the world in proportion to the work it does, because it is certain to cure even the worst cases if taken properly. One bottle of thirty pills will cure any ordinary case, and one dose will stop the chills, but a number of doses and a little time are required to drive all Malaria from the system. Sold by druggists.

Porpoises are often known to form a ring about a shoal of small fish, and by driving them into a mass obtain a hearty meal.

The Young Folks.

Going to School.

I see the little children creeping, creeping
Up the long hillside to the village school,
With slow, reluctant feet, and almost weeping
To end glad summer with the sterner rule
Of tasks and hours and waste October weather
Pent up in irksome study altogether.

I see the little children running, running,
When school is over, to resume their fun,
Or in the late sweet warmth of daylight sun-
ning

Their little discontents away, each one.
"How nice to be grown up," so they are say-
ing,
"And not to study, but be always playing!"

Ah, foolish little children! if you knew it,
Grown folks must study just as children do—
Must punctual be at school, or else they rue it,
And learn a harder lesson yet than you.
Early they set to work and toil all day;
The school lets out too late for any play.

Their school-room is the world, and Life the
master—

A stern, harsh master he, and hard to please.
Some of the brighter children study faster
Than can the others who are dull, and these,
When they've recited, if they stand the test,
The master suffers to go home and rest.

But all must learn a lesson soon or later,
And all must answer at the great review,
Until at length the last discouraged waiter
Has done his task, and read the lesson
through;

And with his swollen eyes and weary head,
At last is told he may go home to bed.

So, little children, when you feel like crying
That you are forced to learn to read
Think of the many harder lessons lying
In the dim future which you deem so bright.
Grown folks must study e'en against their
will;

Be very glad that you are children still.
—Congregationalist.

Now came still evening on, and twilight gray
Had in her sober livery all things clad;
Silence accompanied; for beast and bird,
They to their grassy couch, these to their
nests,
Were slunk, all but the woeful nightingale.
—Milton.

The wise contriver on his end intent,
Careful this fatal error to prevent,
And keep the waters from corruption free,
Mix'd them with salt, and season'd all the sea.
—Sir R. Blackmore.

A COLLEGE FOR HORSES.

"That's the best educated horse in New York. He is the most intelligent horse that ever came out of school."

The speaker was a broad-shouldered fireman, who stood at the door of a down town engine house. The handsome roan which stood a few feet away ready to jump into his harness, seemed to know what was being said, for he twisted his head and arched his neck in the proudest manner. A moment later, under the direction of the fireman, he went through a wonderful exhibition of fast harnessing, showing almost human intelligence. He practically harnessed himself and did it so quickly that the eye could scarcely follow him.

What the fireman said of the horse was true. He had been to school, from whence he graduated with distinguished honors. There are many interesting things in New York, but there are few things more interesting than the school from which this particular horse graduated. It is situated in the upper part of New York and is under the management of several veterans of the fire department, commanded by a well-known veterinary surgeon, who is practically principal of school.

And there is as much hard studying done in this school as in any in New York, even if the pupils are horses.

The school in New York educates horses for the fire service only. It is a more important institution than most people may at first thought imagine it to be. Intelligent horses are almost as indispensable as are intelligent men. A stupid, a slow or a balky horse may at times cost the loss of thousands of dollars, and perhaps many lives. The delay of two or three seconds in getting a fire engine out of the engine house sometimes gives a fire an impetus that is unnecessarily damaging to life and property. The horses turned out from this school are warranted to be strong, intelligent and to have a thorough knowledge of their business. They never balk, they are never lazy, and are in every respect reliable, being sound of wind and limb and more than intelligent.

The horses are all picked, but they seldom are of any use for fire work after five years of service. They are selected by experts from among the best horses that are to be found at the Bull's Head horse market, the chief horse market in the United States. The horses selected come mainly from the

West. It requires some skill to pick out horses for use in the fire department. Big and clumsy horses are of no use. But the horse must be speedy and strong. The horses selected are usually about sixteen hands high, weighing from 1,200 to 1,450 pounds, and their ages range from four to six years. Younger horses are not strong enough to drag heavy fire engines, and older ones are too old to train.

As soon as the horse is bought he is sent to the school, and Dr. Shea, who is in charge of this institution, says that in his opinion horses and boys are very much alike, and must be managed in very much the same manner. But Dr. Shea believes in kindness as a means to get control of his pupils and teach them.

It is marvelous how quickly these young horses learn what is necessary for them to know before they can be put to work. The men who handle them know their business thoroughly, and are in love with it. Under their careful handling the green horse understands his duties in little more than a month. No whip is used in this school. The first test is that which establishes the soundness of the animal's wind. Then he is put in his stall. He is led backward and forward to where the harness hangs until he becomes used to the engine, and until he also becomes accustomed to ducking or lowering his head to get it into the collar.

When he accomplishes his task well he is given apples or candy or lumps of sugar, and is petted and made much of. He is next taught to rush to his place in front of the engine at the clang of the gong. When he becomes expert at this his education is complete and he is ready for serious work, and a week later can run to a fire as well as the most thoroughgoing veteran.

There are always a dozen horses being put through their paces at this school, which is constantly becoming more and more of a necessity. These horses cost about \$300 each, and after their five years they are disposed of to street peddlers or cartmen for any sum from \$50 to \$150. These horses are so well taught that they never forget their training. It is not an uncommon thing when a fire engine dashes through the streets of New York to see some dilapidated looking nag attached to some huckster's wagon prick up his ears and join in the race to the scene of the fire. It is an old and broken-down fire horse who can't forget the stirring days when he helped draw an engine. It is the same spirit that led broken-down hunters to join in the hunt at the sound of the cry of the hounds.

There are some wonderful horses in the New York fire department, but the champions are "Joe" and "Charley," the splendid team that are attached to engine company 17, in Chambers street. These were the prize-winners at the world's fair at the American Institute in 1885, and they are still the champions. They are the two most famous scholars ever turned out from New York's school. Joe is the champion of champions, and he entertains many visitors who come daily to admire his intelligence. Joe is a roan, and a handsome one, too. His mate Charley is a bay, and this team can drag a heavy engine over the ground faster than any team in the United States and probably in the world. At the world's fair, when they won the medal which they still hold, they were tried on a dash of twenty-six feet six inches. They made three tests, one at 10 in the morning, another at 2 in the afternoon, and yet another at 8 o'clock in the evening.

The time of the first dash was one and five-eighths seconds; for the second two and one-half seconds, and for the last two seconds. The intelligence of these horses is simply remarkable. Chief Shaw, of London, could scarcely believe that they could do what was said of them until it was done before his own eyes. Even then it was hard to believe. On three ordinary trials the other night Joe and Charley got into their harness and had their engine on the street and on their way to a fire in an average time of eleven seconds. And there was no special effort to make extraordinary speed, either.—Cor. St. Louis Globe-Democrat.

Artificial vanilla can be made from the sap of the pine tree.

Band-boxes are said to have been so called from their having been first used for holding the minister's "bands," or wide collars, such as Milton wears in his portraits.

Wild Beasts in India.

According to the latest official returns, which are for 1886, 24,841 persons were killed by wild beasts that year in British India. Of these, 21,134 were killed by snakes, 928 by tigers, 222 by wolves, 194 by leopards, 118 by bears, 57 by elephants, 24 by hyenas, and 1,169 by other animals, including scorpions, jackals, lizards, boars, crocodiles, buffaloes, mad dogs, and foxes. In the same year 57,541 animals were destroyed by wild animals, but in this case the proportions are quite different, for while snakes were responsible for the deaths of eleven-twelfths of the human beings, they only killed 2 in every 57 animals, tigers and leopards doing the greatest damage. Tigers show 23,779, leopards 22,275, wolves 4,275, snakes 2,514, hyenas 1,312, and bears 758. In the case of both human beings and animals the destruction appears to be on the increase; in the former case the number is higher than any one of the previous ten years, and in the latter it is third in ten years in point of numbers killed. At the same time the numbers of wild beasts killed and the rewards paid for that purpose are increasing. In 1886 22,417 wild beasts were destroyed and 417,596 snakes.

Interesting Items.

The gastric juice of dogs is always strongly acid.

The waste heat of the lime-kiln is made to generate steam and warm immense public buildings in Europe.

Some years ago, a Missouri farmer in plowing found a rattlesnake which had two perfectly-formed heads.

A resident of Holland, who died in 1872, was said to have smoked over four tons of tobacco in his life of eighty years.

The red thorn apple is a luxury of the Indians of the Andes, under the influence of which they believed themselves to enter into communion with the spirits of the dead.



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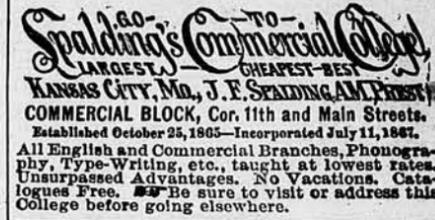


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A reader suggests that the jurisdiction of Justices of the Peace be curtailed so that they can only hear cases arising in their own township, and he would require litigants to pay all the costs they make.

In the London *Live Stock Journal* of December 21, 1888, a copy of which lies before us, we see a deservedly complimentary notice of Linwood Herd of Short-horns established by our fellow citizen, Colonel W. A. Harris, of Douglas county.

A correspondent calls attention to the fact that in his country farms which are assessed at \$500 sell for but little more, while in another county named, farms that sell for \$4,000 and \$5,000, are assessed at \$500. Such inequalities exist in all parts of the State, and they will exist until some general and uniform system of assessment is adopted.

SPECIAL CLUB OFFER.

In order to accommodate a large number of our subscribers who want a representative State newspaper which will give all the State and telegraphic news, and full reports of the Legislature, we have concluded to offer the *Weekly Capital-Commonwealth* and the *KANSAS FARMER* one year for only \$1.50. This offer holds good only till February 1, 1889.

Wabaunsee Farmers' Institute.

An interesting Farmers' Institute was held at Wabaunsee, Wabaunsee county, Thursday and Friday of last week. From "Horace's" report of the proceedings we take the following facts: Mr. J. M. Bisbey occupied the chair, and Mr. A. Stiles the office of Secretary, and the program for the occasion was as follows: "The Poland-China Hog," by J. M. Bisbey; "Cattle-Raising," by H. B. Jones; "Dairy Possibilities of Kansas," by Prof. I. D. Graham; "Cattle-Feeding," by John Willig; "Raising Horses," by J. T. Genn; "Ensilage for Kansas Feeders," by H. M. Cottrell; "Corn," by John F. Hiel; "Poultry," by Mrs. Nellie Stiles; "The Farm for Girls," by Miss Winnie Cotton; and "Butter-Making," by Miss Viola Bangs.

Some of the papers read are now on file in this office for publication in *KANSAS FARMER*.

FARMERS IN COUNCIL.

Interesting Meeting of the State Board of Agriculture.

The eighteenth regular annual meeting of the State Board of Agriculture, begun in Topeka the 9th inst., was a very interesting one. An unusually large number of instructive papers were read on subjects of present interest to farmers in Kansas. The President and Secretary are entitled to credit for the preparation of the excellent program. It is unfortunate that these papers cannot be published at once and spread among the people instead of lying in manuscript until the first quarterly report is issued next April after farmers have begun the spring work and will devote but little time to reading. Here is a summary of the proceedings.

FIRST DAY.

Officers and members present: Wm. Sims, President; J. F. True, Vice President; M. Mohler, Secretary; John Francis, Treasurer; R. W. Jenkins, Nat Mullen, Hon. A. W. Smith, H. C. St. Claire, A. P. Collins, Joshua Wheeler, T. M. Potter, W. J. Wilson, and S. J. Carter. Representatives from county associations: H. H. Turner, Rawlins county; Theo. Shoemaker, Smith county; John Frazer, Rush county; Henry Morgan, Ottawa county; Nicholas Mayrath, Ford county; R. M. Emery, Nemaha county; W. M. Flaherty, Linn county; C. M. Buckles, Coffey county; T. B. Cannon, Phillips county; A. Willis, Franklin county; C. E. Dennison, Cheyenne county; Edwin Snyder, Jefferson county; A. A. Main, Woodson county; E. S. Bower, Lincoln county; Amos Prouty, Harvey county; Thomas Anderson, Saline county; L. L. Bailey, Neosho county; J. H. Pugh, Montgomery county; J. W. Latimer, Linn county; J. H. Mitchell, Rooks county; W. W. Watson, Osborne county; Frank Goepel, Mitchell county; William Chapple, Doniphan county; Martin Allen, Ellis county; John Kelly, Sedgwick county; William Evatt, Douglas county; T. A. Hubbard, Sumner county; J. A. Arnold, Pottawatomie county; Thomas B. Gowdy, Anderson county; Ira F. Collins, Nemaha county; Geo. R. T. Roberts, Brown county; S. S. Lynn, Cowley county; A. C. Pierce, Davis county; Charles De Moisy, Bourbon county.

After reports of Secretary and Treasurer, Hon. Nat Mullen, of Rooks county, read a paper on "Agricultural Literature." Edwin Snyder read a paper entitled "Some Mistakes of Farmers." J. F. True addressed the Board on "Mistakes in Farming and Stock-Breeding." Then followed—"Will Farming Pay in Southwest Kansas?" by Nicholas Mayrath. "The Best Breed of Cattle for Kansas Farmers," by Joshua Wheeler. "What Shall the End Be," by A. P. Collins.

SECOND DAY.

The first order of business was an address by W. M. Flaherty on "Maintaining the Fertility of the Soil." A paper was next read by Martin Allen, whose subject was "The Water Supply of Central Kansas. How to Maintain and Preserve It." This was followed by a paper prepared and presented by H. R. Hilton, relating to "Moisture Economy." Mr. Hay delivered an address on "Prevention of Drouth and Hot Winds," and Mr. Swann spoke on "Forecasts of Weather." John E. Frazer discussed the "Lister," when Prof. Snow read a paper on "Chinch Bugs," and Mr. A. Willis read a paper on "The Interest of the Agriculturist in Horticulture." At the evening session the following papers were read: Prof. G. H. Failyer, of the State Agricultural college, read a paper on the "Value of Sorghum Cane as Shown by

Analysis." Prof. E. B. Cowgill read a paper on "The Machinery for Sugar-Making," which will be embodied in his report to the State Board of Agriculture, which will be published in the biennial report. W. H. Turner's paper discussed "The Adaptability of the Soil and Climate of Northwest Kansas to the Production of Sorghum Cane." W. P. Clement considered the "Sorghum Sirup Manufacture" and A. C. Pierce "Silo and Ensilage."

THIRD DAY.

The following named gentlemen were elected officers of the Board for the ensuing year: President, Hon. A. W. Smith, McPherson county; Vice President, Edwin Snyder, Jefferson county; Treasurer, Hon. John Francis, Shawnee county. Members of the Board: R. W. Jenkins, of Shawnee county; Nat Mullen, of Rooks; A. P. Collins, of Saline; Hon. G. W. Glick, of Atchison; Thomas Hubbard, of Sumner.

Hon. G. W. Glick addressed the meeting upon the evils of the present "Dressed Beef Combine." Prof. Robert Hay read a paper upon "Salt, With Some Suggestions as to Its Use in Agriculture." O. E. Morse read a paper on "Forage and Fertilizers." C. M. Buckles treated county roads.

On motion the following, offered by Governor Glick, was adopted and referred to the Legislature:

Resolved, That the honorable Legislature of the State of Kansas is hereby respectfully requested to provide by law for the inspection on foot of all beef animals that are to be slaughtered for sale as human food in the various cities of this State, and that such inspection be made incumbent, and enforced in all such cities and towns by proper penalties.

At the ensuing meeting Prof. J. T. Lovewell, of Washburn college, read a paper on "The Meteorology of 1887 and 1888," with suggestions. Next followed an address by Dr. Geo. T. Fairchild, President of the State Agricultural college at Manhattan, on the subject: "Agricultural Education as Connected With Usefulness of the Experiment Station." Mr. McFarland, of New York, read a paper upon "The Successful Manufacture of Paper From Sorghum Cane Chips."

A vote of thanks was tendered by the Board to the gentlemen contributing valuable papers.

The following appointive officers were chosen to serve during the coming year: Geologist: Prof. O. St. John, Topeka; Assistant Geologist, Prof. Robert Hay, Junction City. Entomologists: Prof. F. H. Snow, Lawrence; Prof. E. A. Popenoe, Manhattan. Meteorologist: Prof. J. T. Lovewell, Topeka; Assistant Meteorologist, Sergeant T. B. Jennings, Lebo. Botanists: Prof. J. H. Carruth, Lawrence; Prof. L. E. Sayre, Lawrence; Prof. W. A. Kellerman, Ph. D., Manhattan. Chemists: Prof. G. H. Failyer, Manhattan; Prof. E. H. S. Bailey, Lawrence.

A standing committee on needed legislation was appointed, consisting of A. W. Smith, Chairman; Joshua Wheeler and T. M. Potter.

RESOLUTIONS.

The following classified resolutions were adopted:

CONSERVATION OF MOISTURE.

WHEREAS, It has appeared to this meeting that the question of conservation of moisture and distribution of rainfall is of great importance to the farmers of Kansas, and that information of this subject is not easily accessible to the majority of them.

Resolved, That the Secretary of the Board be instructed to print as a slip that portion of Mr. H. R. Hilton's paper which relates to the action of the soil on moisture, and that a copy be sent to all the newspapers and magazines in the State, and especially to the publishers of patent sheets, with a request that they will reprint the most salient features of it for the benefit of the agricultural committees of the various counties. And be it also

Resolved, That it be a general instruction to the Secretary similarly to distribute and call attention to information on special subjects that shall by the Board be deemed worthy of immediate action.

A GEOLOGICAL SURVEY.

WHEREAS, It has appeared to this meeting of the State Board of Agriculture that a geological survey not only systematizes and increases our knowledge of the rock strata

and minerals below the earth's surface, but that, if conducted in the most effective manner, it will give accurate information with regard to the depth and structure of soils and sub-soils, and their capacity to support vegetation and withstand drouth, therefore,

Resolved, That the executive committee be instructed to petition both branches of the Legislature in favor of a bill for a geological survey of the State, and to make ample provision for the rigorous prosecution of the same at as early a date as practicable, and that a committee of three be appointed to urge the passage of the bill through the Legislature.

FARMERS' INSTITUTES.

Resolved, That this Board should do all in its power to encourage the holding of Farmers' Institutes and so operate with the agricultural college and local county and district societies in organizing and conducting the same.

STANDING COMMITTEES.

Resolved, That we recommend the by-laws of this Board be amended so as to include the following, viz.: Sec. 6. A standing committee of three shall be appointed on needed legislation, which shall report early at each annual meeting, and also a standing committee on credentials.

THE SUGAR BOUNTY.

WHEREAS, The State of Kansas is paying a considerable bounty for the production of sugar in this State, to the end that our people may be induced to engage in its manufacture, and

WHEREAS, The burden of this bounty is borne by all the people of this State, therefore

Resolved, That it is the judgment of the Kansas State Board of Agriculture, that the people are entitled to have a complete and detailed statement of the manufacture of all such sugar claiming a bounty, and that we call upon our State Legislature to so amend the sugar bounty law that no bounty shall be paid by the people on any sugar where such report is not fully and completely made to the State by the Sugar Inspector and published for the benefit of the people whose money pays the bounty.

DISSEMINATION OF NEWS.

Recognizing the importance of a more general dissemination of the various publications and reports of the State Board of Agriculture, we would recommend that in addition to its other correspondents the officers of this Board include the several county and township officers throughout the State.

PURCHASE OF DEAD ANIMALS.

Resolved, That the committee on legislation be instructed to secure necessary legislation to permit competition in the purchase of dead animals at the Kansas City, Kas., stock yards.

Ninety-Day Corn.

In response to a request for such information, Mr. A. Ostertag, of this, Shawnee county, brought into this office a few days ago, two specimen ears of corn which he raised in 1888 from seed planted first week in May. It was well matured the first of August and turned off about forty bushels to the acre. The ears are eight and nine inches long, one with twelve rows, the other fourteen, with plump, glassy yellow kernels fully three-eighths of an inch of solid corn, excluding the point. Mr. O. obtained the seed from an neighbor who raised it in 1887 from seed brought from Iowa in the year before. It is good yellow dent corn, we have seen no better this winter—solid, fully developed and thoroughly matured. Mr. Ostertag's post-office address is Tevis, Shawnee Co., Kas.

Mr. Swann on Weather and Crops.

Mr. Swann, in a letter much too long to print during the present crowded state of our columns, says: "While I do not believe it is possible to tell just where it will rain of the years of drouth, these local showers, its safe to say that the meteorological and statistical reports show without doubt what will be the general conditions of the weather so that no farmer need to go blind hereafter, unless he desires to do so."

In another place he says: "Yet I know that by certain methods of culture that if there was not one drop of rainfall from now to September, 1889, that more than a half crop of corn could be grown, if not more, and a No. 1 crop of oats could be grown if all had the work I have written on the subject, and I will further say that no hot winds will cut short the crops of 1889 to exceed the western third or less of Kansas or the Northwestern Territories."

Lime in Sugar.

Mr. O. B. Jennings kindly favors us with a long communication on this subject, including a printed copy of a letter he addressed to a New Orleans paper last fall. As soon as we can use the matter to advantage, it will be done.

THE PROPOSED REDEMPTION LAW.

There is a great deal of strong opposition to the proposed equity of redemption law—a law saving to owners of land sold under foreclosure of mortgages the right to redeem it within a certain time on payment of judgment, costs and interest. The objection comes from the creditor class mostly, and the grounds of these objections are two—(1) that it would result in public injury, and (2) that it would be a violation of the contract with the lender. It is alleged that capital being timid, any change of the law looking toward delay in collection of debts, would form the effect to make borrowing in the future more difficult, that persons needing money could not obtain it on as easy terms as they can now, that distress would follow, and bankruptcy and ruin. In other words, men who have money to lend are public benefactors, and that changes in the law, if made to help the debtor pay his debts and save his property, are against the public interest. The lending of money is a legitimate business, many a man would sink if he could not borrow, but that is no reason why the State would be injured by a change in its laws intended to help the borrower pay his debt and save his home.

As to its being a violation of contract, it is nothing of the kind; it is rather helping debtors to make good their contracts. Money borrowed in the cases which the proposed law is intended to relieve was lent on interest at rates agreed upon under the law, and notes were executed for the amount payable at one or more times certain; the notes are secured by mortgage on real estate, and the mortgage is not foreclosed in any case where the payments are made according to contract. It is only when the contract has not been complied with, and when the payments have not been made according to promise, that suit is brought to collect out of the mortgaged property. Then, after contract broken, and after judgment and execution, the law proposed would say that if at any time within—a period named, one, two, or three years) the debtor will pay the judgment, costs and interest he may thus redeem the land. It takes no right away from the lender; he would obtain judgment and execution just as usual, the property would be sold as it is now; but instead of making the purchaser's title absolute upon conveyance by the sheriff, it would not be perfect until after the time of redemption has passed unimproved.

It is said that we cannot borrow at reasonable rates if we provide for an equity of redemption. Let us try it and see. Every one of the old States has had and had from the beginning, a redemption, and they never suffered because of it. Creditors have had the laws their own way a long time; now let the people mix in a little justice and mercy and give the people a chance to pay their debts and also save their homes. If there is any unreasonable fight made against the proposed law on the part of creditors, we would feel like adopting heroic remedies. Farmers in Kansas have paid as high as 50 per cent. per annum for the use of money; they have submitted to all manner of extortion, and none of them who could pay the amount he had promised and at the time mentioned, ever plead usury. It is only when they are driven to the work that they fight back. We have had two years of short crops, and in all the counties' taxes are necessarily high; many of the farmers have had all they could do to pay current demands, and a large portion of those who are in debt under mortgage will lose their farms if they are not allowed to redeem them after sale.

One of our correspondents recently said that "most Kansas farmers would be renters, not owners, if it were im-

possible to borrow." If that be true, the sooner the test be made the better, for in that case the only object in borrowing would be to pay interest. If that is all let us have immediate settlement. Our homeless men and women could go upon the public lands and make new homes, and the places they left would soon be tenanted again and by owners who brought with them money enough to pay for them. If we are that near the end, let it come quickly.

GOVERNOR MARTIN ON INTEREST, MORTGAGES AND TRUSTS.

The following extracts from the message of Gov. Martin to the Legislature last week are plain and brief:

RATES OF INTEREST.

In my message to the Legislature of 1885 a recommendation was made that the legal rates of interest be reduced, and this recommendation was renewed in my message of 1886 and 1887. Laws to carry into effect this suggestion were introduced, but failed to receive affirmative action.

The rates of interest established by our laws were fixed more than twenty years ago. They are higher than in any other State of the Union except one, and the penalty they impose for usury is wholly inadequate. Kansas securities are equal to those of any other State. The conditions existing when the present legal rates of interest were fixed have changed. There is no excuse for maintaining the present excessive rates of interest. They should be materially reduced. Severe penalties should also be fixed to prevent and punish usury. Our laws on this subject are notoriously defective, and the penalties they impose are wholly inadequate. I sincerely trust that, when your session ends, it can no longer be said that Kansas allows a higher contract rate of interest, and imposes a smaller penalty for usury, than any other State of the Union. And as nearly all the members of the present Legislature were elected on a platform which explicitly declares in favor of a retraction of existing rates of interest, and the imposition of severe penalties for usury, this subject will, no doubt, receive your early and favorable attention.

MORTGAGE LAWS.

The laws concerning mortgages need revision and radical improvement. It should require something more than a mortgage to steal a man's farm, either in this or any other State. Appraisal of property before its sale under foreclosure should be surrounded with the most stringent limitations to protect the interest of the debtor, and the right of redemption should be not only extended but made secure. Our chattel-mortgage laws invite outrages on property rights that are as flagrant as grand larceny, and the wrong and injustice that has been done under the shield of these laws, is a disgrace to civilized government. Our mortgage laws should be generally remodeled so as to protect the interests and rights of debtors and mortgagors against the greed and inhumanity of creditor and mortgagee.

"TRUSTS" AND COMBINATIONS.

The declaration of principles upon which nearly the entire body of the present Legislature was elected, affirms that "all trusts and combinations to monopolize food supplies or control productions are dangerous to the interests of the people, and should be prohibited under the severest penalties of law;" and specifically mention as especially obnoxious and destructive to the interests of all classes, "the trust or combination of the packing houses to drive out of business all other butchers, and thus control the cattle markets as well as the supply and prices of dressed meats." No subject that has engaged the attention of the law-makers of the United States for a century past is of such vital importance to all classes of the people as is that of suppressing the so-called "trusts" or combinations of capital to control the market supplies and prices of the country. The real purpose and effect of these combinations, no matter what they may pretend, is, on the one hand, to fix the buying price of raw products without reference to the rights or interests of the consumer and the public. Wherever these "trusts" are organized, competitive properties and industries are destroyed, with ruthless system, until the public is at the mercy of their managers. Within the last two years several of the most promising industries of this State, including several linseed oil mills, plaster paris works, and oracker factories, have been wantonly strangled by such combinations, to the serious damage of the communities in which they were located and of the producers of the materials used by them. Recently the packing houses have made a systematic attempt to drive out of business the local butchers in all parts of the State, and this effort, successful in some of our cities and towns, has failed in others only because of the firm action of local authorities. The most stringent and far-reaching laws should be at once enacted to prevent and punish all combinations organized or intended to regulate or fix the price of any products of the soil, the factory or of the workshop, and the penalties for a violation of these laws should involve imprisonment as well as heavy fines. Laws should also be enacted conferring upon the municipal authorities of all cities and towns ample authority to prevent and punish such combinations, and especially to protect their local industries against the rapacious greed of these destroying free-booters. Our Senators and Representatives in Congress should also be instructed to exert all their influence in urging the adoption of national laws having the same objects in view. The republic must annihilate the so-called "trusts," under whatsoever name or guise they may be organized, or the trusts will sap all the sources of our national prosperity and destroy the republic. The "trusts" establish commercial despotism in the stead of individual skill and energy, destroy thousands of industries conducted by men of limited means, restrict or extinguish personal enterprise, and deprive the people of those fair opportunities for the exercise of talents, energy and skill which, for a century past, it has been our boast were open to every American citi-

zen. The "trusts" invade every interest and outrage every right of the citizen, and establish whenever and wherever they are successful in their aims, a despotism unequalled for audacity and rapacity in the history of the world's commerce.

THE LEGISLATURE.

This body convened the 8th inst., and both branches were organized promptly, but the Senate adjourned Thursday and the House Friday, to await the appointment of committees by the Speaker of the House. Fifty-nine bills were introduced in the Senate and several resolutions in the House. Following are titles of bills of general interest introduced in the Senate:

Senate bill No. 1, by Senator Mohler—An act relating to the foreclosure of mortgages, and the sale of land under such foreclosure.

S. B. No. 2, by Wright—An act to cede jurisdiction to the United States over the territory of the Ft. Riley Military reservation.

S. B. No. 5, by Forney—An act authorizing cities and townships of the second and third classes to encourage the manufacture of sugar by subscribing to the capital stock of a corporation organized for such purpose and issuing bonds in payment therefor.

S. B. No. 6, by Murdock—An act providing for a State board of compilation for furnishing to the school districts of the State at cost a State series of textbooks.

S. B. No. 7, by Murdock—An act prohibiting the sale of unsound, diseased and unwholesome articles of food.

S. B. No. 9, by Murdock—An act regulating fees and salaries of various county officers.

S. B. No. 11, by Harkness—An act providing for a State industrial school for girls.

S. B. No. 13, by M. C. Kelley—An act relating to insurance and fire insurance companies.

S. B. No. 17, by Lockard—An act establishing a geological survey for Kansas.

S. B. No. 20, by H. B. Kelley—An act to facilitate legislation and to secure a proper consideration of bills.

S. B. No. 21, by H. B. Kelley—An act relating to fire insurance and fire insurance companies, and prescribing certain liabilities.

S. B. No. 22, by H. B. Kelley—An act to appeal all laws making premium notes taken by any insurance company a lien on the property insured.

S. B. No. 26, by Moody—An act requiring a uniform system of instruction in schools of cities of the first, second and third classes to prepare students for admission into the University of Kansas.

S. B. No. 28, by Moody—An act to require all officers empowered to take the acknowledgement of written instruments to make and keep a record of the same.

S. B. No. 31, by Moody—An act to amend sections 9, 10 and 16 of article 2, chapter 68 of the general statutes of 1868, relating to mortgage of personal property.

S. B. No. 33, by Rankin—An act to require corporations to pay their employees weekly and provide penalties for violations thereof.

S. B. No. 34, by Kelly, of McPherson—An act to prevent the disposal or incumbering of exempt personal property except as herein provided, and to prescribe penalties and forfeitures for violation hereof.

S. B. No. 36, by Gillett—An act to provide for the redemption of real estate sales under execution, order of sale or other final process.

S. B. No. 37, by Mohler—An act to provide for the redemption of real estate sold under judicial process, and repealing certain acts in conflict therewith.

S. B. No. 41, by Rush—An act relative to assessment and taxation, also creating the office of county assessor, prescribing the manner of his election and salary and defining his duties.

S. B. No. 44, by Senior—An act to regulate interest on money and repeal chapter 51, laws of 1868, as amended by laws of 1871 and 1872.

S. B. No. 49, by Kelley, of Crawford—An act entitled "An act to prevent gambling under the disguise of trading in stocks, bonds, petroleum, cotton, grain, provisions or other commodities."

S. B. No. 51, by Carroll, of Leavenworth—An act providing for the judicial sale of real estate for all taxes not collected by virtue of tax sales within three years of such tax sale.

Senator Mohler's bill extends the length of time between the beginning

of suit and the date when the land can be sold under foreclosure. It provides that interest on the mortgage shall continue but extends the limit from about six months, as at present, to eighteen months or two years.

Senator Gillett's bill provides for the redemption of property sold under execution or other legal process. It brings the law back to its status under the old law of 1862 and provides for the retention, by the owner of the property, after judicial sale for two years with the privilege of redeeming it at any time during that period by the payment of judgment, costs, at 10 per cent. interest from the time of sale.

The joint resolution (No. 1) introduced by Senator Harkness, providing for a constitutional convention. It calls for a vote at the first general election in the State on the proposition to hold a convention to adopt a new constitution.

SUGAR FACTORIES WANTED.

A friend, writing from Aliceville, Coffey county, this State, says "we want to say through your paper that Aliceville wants a sugar plant. We have the best of soil and the purest sandstone water in abundance and our farmers will give a very liberal bonus to any capitalist that will locate sugar machinery here. We are well located on the Missouri Pacific railroad system and coal can be had very cheap."

This is a sample letter. It is substantially the same as we have received from each of probably a dozen other counties. The farmers want sugar factories, and the want is reasonable. There is probably no better opening for the profitable investment of capital in this State than this. We would caution the people, however, against undue haste in the matter. The failure at Douglass last year is a lesson worth studying. It shows that there must be system in the business management, that the machinery and sugar-making processes must conform to approved models and methods, and that great care generally must be exercised. Experienced sugar-makers are very scarce—not five in the State. Still, there has been enough learned to justify the erection of five good factories in Kansas this year; there are men enough to handle that many new factories by importing some help from Louisiana. Letters have been written to Germany for the purpose of learning whether a few experts could not be obtained from the sugar schools of that country. Sugar factories are expensive establishments, they require careful management, just as any other business does. If a man or a company engages in trade, investing \$50,000 or \$100,000 in business, the best talent is employed to take care of it. A good sugar factory, built after models now in use, costs in the neighborhood of \$100,000. Such an investment cannot afford to keep incompetent managers. And that refers to the business affairs only. Sugar-making is a chemical operation; it requires expert knowledge and skillful manipulation; the average man cannot do the work. Every factory must have at least one person who has had some experience, and such persons, in this country, are very few, indeed. In Germany there is one (possibly more) school specially devoted to the training of sugar-makers. Most of our most useful knowledge on this subject was derived from German sources. The diffusion process was practiced in that country some years before it was adopted here.

There are at least four essentials in sugar-making: First, good cane; second, a good factory—one in which all the parts are not only of approved patterns, but are so constructed as to work easily together, so that every part does its full share of the work and does it well; third, good business management; fourth, skillful supervision of the work in the factory. Let farmers who are anxious about sugar factories consider all these matters, before engaging in the work to the extent of investing money or incumbering themselves with debt. The KANSAS FARMER believes the time is coming when Kansas will produce immense quantities of sugar, and will do all it can do to forward the work, but it does not want its readers to invest money in sugar-making until they have looked the ground over and made all the beginnings secure. Our greatest need now is sugar-makers; all other related matters can be handled easier than this.

Horticulture.

Better Fruit and More of It.

EDITOR KANSAS FARMER:—Please permit space enough in your valuable journal for a brief article on the result of "short work" on the roots and tops of young orchard trees. Too great economy is sometimes a great mistake. This is true in cutting too short the roots for grafting; whole root work is far preferable, because, first, it insures (in great measure) a long and healthy life for the tree, and secondly, better and more fruit, because the deep-growing roots find moisture sufficient even in dry seasons to cause the fruit to develop fully and to remain on the trees till ripe. The graft should be inserted at the crown, where top and root joins. Healthy, thrifty, trees with roots penetrating the earth a proper depth, are not easily injured by the sun's rays, and if grafting is properly done the tree can be pruned high enough on one upright trunk to permit the most complete development and perfect ripening of the fruit. A trunk of good height is quite as essential as roots and limbs. A tree can be neither long-lived nor valuable without a trunk of proper height. The best average height of tree trunk is six feet in Kansas. This height is very easily obtained if the nurserymen receive proper encouragement by orchard men. Erroneous education has too long prevailed in this important and valuable industry in Kansas. One hundred trees properly root-grafted and thoroughly transplanted and pruned to a proper height while young, and kept in an upright position, will be worth more in twenty-five years than one thousand trees planted on short-cut root-grafts in the ordinary way and allowed to take care of themselves on trunkless bunches of brush so commonly seen in Kansas.

Good fruit and more of it, is what is reasonably expected when thrifty, long-lived trees are produced by proper care, first by the nurserymen, and then followed up by orchard-growers in the prosperous State of Kansas.

CONRAD HARTZELL.

St. Joseph, Mo.

How to Plant Trees.

It is always better to plant small trees than large ones. They are more easily and cheaply moved, recover sooner and grow more rapidly. A transplanted tree two or three feet high will soon overtake and surpass a much larger one, and grow into a more vigorous and beautiful specimen. A vast amount of money and a great deal of time is wasted every year in trying to transplant large trees. It is not essential in digging up trees to preserve a large ball of earth about the roots. A very heavy mass of earth often breaks the tender roots, and is, therefore, a danger rather than an advantage to the tree. It is essential, however, to preserve as many of the small feeding roots as possible, and care must be taken in digging a tree not to unnecessarily break or mutilate them. All broken roots should be carefully cut away with a sharp knife before the tree is replanted.

Care must be taken not to expose the roots to the drying influence of the sun and wind. They should be covered as soon as the tree is dug with a piece of cloth or matting, or they may be dipped in wet mud until they become thoroughly coated. The secret of successful transplanting is to have the soil brought into close and immediate contact with the roots. It is better, therefore, to plant in dry and not in wet, rainy weather. The coating of mud not only protects the roots from drying, but helps the

earth thrown about them to adhere more closely. Two men are required to plant a tree.

The hole should be twice the width of the mass of roots, and the bottom should be worked fine with a spade. One man should then hold the tree erect, with its roots carefully spread out in all directions in the hole, while the second man should break the soil taken from the hole, so as to make it as fine as possible, and then let it fall from the spade down upon the roots, while the first man should lift the tree gently up and down, that the fine earth may penetrate and fill all cavities about the roots. When the hole is nearly filled in this way the earth should be pressed down with the foot, beginning at the outside of the hole and working in toward the stem of the tree. The hole may then be filled and the soil rammed down solid. Tall trees should be carefully and securely staked as soon as planted. The operation is then finished. It is not uncommon to see water poured into the hole while it is being filled up. This practice does harm rather than good, as it washes the fine soil

Boley's Northern Spy Potato.

Mr. Samuel Wilson, Mechanicsville, Pennsylvania, discusses the potato question in a letter to this office, inclosing a cut of Boley's Northern Spy. We take the following extract from his letter:

"Hundreds of new sorts have been tried with high-sounding names and great praise by their introducers, but none has ever yet been found that could compete with the Mercer of fifty years ago, or the Early Rose of more recent date. It has been our aim and greatest desire for the last fifteen years to discover a potato that would take the place of and be as good and productive as these two well-known sorts, the only real valuable and good kinds that we have known in our forty years' farming; and with this object in view we have tried about all we have ever heard of, besides raising many new seedlings ourselves. Some few have proven excellent and valuable, but nearly ninety-nine out of every hundred have been of little account as a reliable main crop potato. After so many years testing, with much labor and expense, we have been re-



BOLEY'S NORTHERN SPY POTATO.

Introduced by SAM'L WILSON, Mechanicsville, Pennsylvania.

away from close contact with the roots:—*Garden and Forest.*

The Ideal Apple Orchard.

P. M. Augur, well-known authority on pomological matters, says his ideal orchard has a soil retentive of moisture but not wet; hill land is better than sandy plain, giving good soil will give fruit of better flavor and texture. For cheapness he would go back from the cities. The trees should be seedlings of vigorous growth, budded when small and trained to a good spreading head that would never require the saw after reaching bearing age. Let the limbs, few in number, start out at five to six feet from perfectly upright stems. Such an orchard is a delight to look at and to work in. Manage to have a good growth the first year after setting, but avoid an overgrowth of soft wood that may die in winter. Late cultivation in autumn is to be avoided as this encourages tender late growth. Head back the annual growth till the tree gets just the shape desired.

warded by discovering a variety which, after three years thorough trial by ourselves and others in various sections of the United States and Canada, we think fully equal to the old Blue Mercer or Early Rose. Boley's Northern Spy originated with Mr. John Boley, State of New York, who claimed such unusual merits for his new potato that we were induced to give it a trial. The first year convinced us that it was a wonderful potato and we at once began negotiations for the control of his whole crop, which unfortunately was quite small. After three years trial we were fully convinced that we had found a treasure we had been looking for, and began sending them out in small quantities to different sections of the country to find out if they would do for others as well as they did for us. From over 300 trials we have received the most satisfactory and convincing reports without one exception. The yield computed by the acre ranges from 600 to 800 bushels, one or two claiming 1,000; and all were ready to

Tutt's Pills

Regulate The Bowels.

Costiveness deranges the whole system and begets diseases, such as

Sick Headache,
Dyspepsia, Fevers, Kidney Diseases,
Bilious Colic, Malaria, etc.

Tutt's Pills produce regular habit of body and good digestion, without which, no one can enjoy good health.

Sold Everywhere.

assert that the Northern Spy is fully equal to the Rose in attractive appearance and fine table qualities. Our supply of this splendid new potato is still quite limited, but we intend to distribute them as widely as possible that others may receive the benefit of what we claim to be the best and most productive potato that has been discovered since the advent of the Early Rose."

Renovating Run-Out Orchards.

We often meet with an orchard of apparently healthy trees, which is practically fruitless. The owner may tell us that it formerly bore abundant crops, but of late years the trees have "run out." Why have they "run out?" They formerly gave good crops of apples. All the other land on the farm was expected to give but one good crop, but this of the orchard was made to give a crop of grain, or a crop of grass or clover, to be taken off as hay. The soil soon became tired of doing this double duty. The trees "gave out" because they were robbed of food; the first thing they need is feeding. Of course if the soil needs draining, lay the needed tiles at once, or as soon as the soil will allow. Such orchards are usually in grass; draw on a heavy dressing of manure and spread it, and, as soon as the soil is in proper condition, turn over the sod and the manure with the plow; with the hot weather the sod will decay rapidly. When this is found to be well rotted, give another plowing, and a deep one. If ashes can be had, spread a heavy coating and harrow; in the absence of ashes, harrow in a good dressing of lime. If the trunk and larger branches are covered with loose scales of old bark upon which lichens and mosses have a foothold, scrape off the loose bark, using a blunt, short-handled hoe as a scraper. Then in a damp time or thaw, wash the trees with soft soap, made thin enough to apply with a brush. Use home-made soft soap, made with lye or potash. That sold at the stores is usually merely hard soap mixed with water and very deficient in strength and quite inferior to the home-made. Mix the soap with enough water to work readily, go over the scraped portions with it, and leave the spring rain to finish the work. In due time the bark will be found beautifully smooth and deprived of all foreign growth. The soap that has been washed into the soil will act as a useful fertilizer. Long neglected trees usually require pruning, and this must depend upon the condition of the tree. Never cut out a branch without good reason for it. If the top has become crowded, cut out enough branches to let light and air into the center; if grown one side, remove the branches needed to restore the balance. If large wounds are made, smooth the surface and paint them over with some dark-colored paint.—*American Agriculturist for January.*

Well, Sarah, what have you been doing to make you look so young? Oh, nothing much, only been using Hall's Hair Renewer to restore the color of my hair.

The Poultry Yard.

POULTRY CONVENTION.

A convention will be held at Wichita, February 20, 1889, for the purpose of organizing a poultry breeders' association. Let every poultry breeder attend.

ABOUT THE BREEDS.

The November *Poultry-Keeper* has an extended article discussing the breeds of poultry, with their points of excellence. We have reprinted it in parts from week to week until it has all been given to our readers. The *Poultry-Keeper* is good authority.

BROWN LEGHORNS.

A Brown Leghorn cock should have a short, deep, dark, reddish-bay head, the color shading into a lighter hue on the neck, yellow beak, dark stripe down the upper mandible, with full, bright red eyes, red face free from wrinkles or combs, while the head of the hen should be of medium size, dark brown in color, nearly bay, shading off to yellow behind the comb, striped with black. Her beak should also be yellow, with dark stripe down the center, with eyes and face the same as the cock. The comb of the cock should be firm on the head, straight, medium sized, red, well serrated and extending back over the head, while that of the hen should droop to one side. Side sprigs, excrescences or twists are not allowed. The ear-lobe should be white, rather pendant, fitting close, and smooth in appearance. The wattles should be red, thin and well rounded on the hen, but rather pendulous on the cock. The cock should have long, well-arched, well-hacked neck, the hackles being a rich golden bay, striped, with black, while the hen should have a long and graceful neck, yellowish brown, the feathers striped with black. The body embraces a number of parts also, for in the cock the back should be medium in length and width, dark red in color, darker on the lower part, each feather, striped with golden bay, the saddle rising in a graceful, concave curve to the tail, with long saddle feathers; but the back of the hen should be dark brown, with each feather nicely penciled with a lighter brown. The cock should have a full, round, black breast, carried prominently, with broad body, having black underpart. The breast of the hen is a salmon brown in color, a little lighter under the body, with the body broader in front and of a brown color. The tail of the cock should be large, full and upright, the sickle feathers well curved and large, a metallic or greenish black in color, with rich, greenish-black coverts, while the wings should be large, folding well, dark red bows, a golden bay stripe on each feather, black primaries, the feathers edged with golden brown, black secondaries, with broad brown edging on outside web of feathers. The hen should have an upright, long tail, of a dull black color, the outside unevenly penciled with light brown, while the inside should be a dull black. Her wings should be large, well folding, with dull black primaries, penciled on the outer edge with light brown; the secondaries are also black, with light brown penciled on the outer web, while the coverts should be dark brown, penciled with light brown. The thighs of the cock should be black, the shanks bright yellow, with yellow feet, each toe having a small dark stripe, while the hen should have slender thighs, of an ashy brown color, yellow shanks, and feet the same as the cock. There are 100 points for Leghorns, of which ten are allotted to symmetry, size gets five, condition eight, head

eight, comb ten, ear-lobes and wattles ten, neck seven, back seven, breast and body ten, wings eight, tail eight, fluff two, legs seven. The disqualifications are twisted or falling combs in cocks, red ear-lobes, wry tails, crooked backs, any other color than yellow on the legs, white or gray anywhere except at the root of the tail, or white in face of cockerels. They are not required to be of any specified weight. It will be seen that the head, comb, ear-lobes and wattles take twenty-eight points from the 100, which is more than one-fourth of the whole number.

THE HOUDANS.

The Houdans, being non-sitters, are excellent layers, nearly equaling the Leghorns, but they do not lay well in winter, and are not as hardy as some of the other breeds. They should be able to stand our climate well, but, unfortunately, the breed is meeting the fate of the Black Spanish, which has been almost exterminated in order to whiten the face. The Houdan is bred for points, especially of the legs, toes, and crests, the latter the most useless of all appendages, but the standard demands it and it must remain. The Houdans are injured by close breeding, premium birds not being as good sometimes as those classed as inferior. But, while the worse qualities of the Houdan have been shown, there is something in its favor. If our readers have flocks of common fowls that they wish to improve, get the Houdan. The long, heavy body, active habits, and prolific laying of the hens, will be transmitted unerringly to all the chicks, for the Houdan is an old-established breed and the chicks come true after the sire. The cross produces a different fowl from either of the parents, for the mingling of blood, so entirely dissimilar, seems to impart a vigor and hardness not at all peculiar to the old stock. Crossed on large, coarse Brahma or Cochins, the result is one of the largest of fowls. The crest will be smaller, but the five toes of the Houdan will be attached to every one, and as a rule the white and black spangled Houdan will sire chicks entirely black when crossed with other fowls. As a table fowl the Houdan is unsurpassed. The juiciness of the flesh, fine grain, small bone, and plump appearance, make it attractive and inviting. For winter laying they are not desirable, but as soon as spring opens they begin to lay, and do not stop until they have well made up for lost time.—*Farm and Garden.*

A prominent breeder says: That one of the causes of disappointment to the amateur fancier lies in the fact that frequently, though he purchases birds of the highest show record, he never succeeds in breeding from them any progeny that will equal in show points the original stock. This arises simply from his own ignorance of the laws of breeding and not from the fault of the birds themselves. It is astonishing, too, how many men who have been breeders of other varieties for years are equally ignorant. Only last winter I stood by the side of a breeder, both of us admiring a magnificent breeding pen of Houdans. On my asking if they were for sale, he replied: "No; I wish they were. I would gladly give him \$50 for that pen." "What would you do with them?" "Why, breed from them, of course," he answered, with a look of surprise. "As they are?" said I. "Certainly. Why not?" returned he. "Are they not splendid specimens?" "Yes," I answered, "but you would not get six birds out of all the progeny." "Why?"



THE POET'S PUZZLE.

Pray, give me a rhyme for Prescription,
A rhyme of most any description.
I have puzzled my brain,
Several minutes in vain,
For a list of new rhymes for Prescription.

Quoth Rachel, the student, "Prescription?"
'Tis as easy to rhyme as Egyptian,
On every one's tongue
Its praises are sung,
With neither bad rhymes nor ellipsis."

"Faith," said Bridget (and her ruby lips shone),
"That elegant Favorite Prescription;
Sure, it saved the dear life
Of me first cousin's wife,
'Tis the truth, and no bit of deception."

"Yes," said grandma, "Pierce's Favorite Prescription
Does good without any exception:
That sickly Jane Gray
Has tried it, they say,
And it cured her of narves and conuption."

WARRANTED.

"Favorite Prescription" is the only remedy for woman's peculiar weaknesses and delicate derangements, sold by druggists, under a positive guarantee from the manufacturers, of its giving satisfaction in every case, or money refunded. Few remedies possess the wonderful virtues necessary to sustain themselves under such a peculiar system of business as being sold under absolute guaranty.

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SICK HEADACHE,

Bilious Headache, Dizziness, Constipation, Indigestion, Bilious Attacks, and all derangements of the stomach and bowels, are promptly relieved and permanently cured by the use of

DR. PIERCE'S PELLETS.

They are the Original Little Liver Pills. Purely Vegetable and Perfectly Harmless. As a LIVER PILL, Unequaled!

ONE PELLET A DOSE! SMALLEST, CHEAPEST, EASIEST TO TAKE.

asked he. The reason I will give now, for the benefit of your readers. In mating up a pen of Houdans, assuming, of course, that you have good blood, first select your cock as near the Standard as you can get him, except as to color. Here let him be a little darker. Be particular as to size, carriage and sprightliness, all of which are important points. With him mate up hens as large as they can be got, retaining, of course, the peculiar shape and style of the variety. Let their combs be small, their crests large, globular and well-shaped, their beards full and large, their bodies well-rounded and with good legs and feet under them. But for color, let them all be far too light in color to ever see a show pen. Trust my word for it, from these very birds you will raise 90 per cent. of exhibition Houdans. You can reverse this where the cock is light in color, by mating hens too dark for exhibition. But always remember that

when the males and females are nearly allied in color you will always get birds either too dark or too light. It is a simple thing when you know it, but if you will look at the list of successful Houdan exhibitors in this country you will find you can almost count them on the fingers of one hand. As regards economic and useful qualities, the Houdan has no peer. It lays nearly as many eggs as the Leghorn, and far larger. In meaty qualities, the Crevecoeur and La Fleche alone equal it and no other variety excels it. They are hearty, vigorous, of exceedingly rapid growth as chicks, and not at all subject to disease. Used as a cross on large fowl, the Houdan cock has no superior, and I foresee the day when it will be the most popular bird for home and market consumption in all America. The French prefer them to all other varieties, and they are the masters of breeding poultry for market.

M.M.L. MEXICAN MUSTANG LINIMENT is for Man & Beast. Kills Pain. Rub it in very vigorously!

M.M.L. MEXICAN MUSTANG LINIMENT Should be kept in stable, Kitchen, Factory, Store & Shop!

M.M.L. MEXICAN MUSTANG LINIMENT Should be kept in stable, Kitchen, Factory, Store & Shop!

M.M.L. MEXICAN MUSTANG LINIMENT is for Man & Beast. Kills Pain. Rub it in very vigorously!

The Veterinarian.

[This department of the KANSAS FARMER is in charge of Dr. F. H. Armstrong, V.S., Topeka, a graduate of Toronto Veterinary college, who will answer all inquiries addressed to the KANSAS FARMER concerning diseases or accidents to horses and cattle. For this there is no charge. Persons wishing to address him privately by mail on professional business will please enclose one dollar, to insure attention. Address F. H. Armstrong, V.S., No. 114 Fifth St. West, Topeka, Kas.]

Contagiousness of Tuberculosis.

For many years this malady among cattle has been steadily on the increase. It is essentially a specific malady due to a specific germ which causes a perverted nutrition of the parts wherever it becomes localized with the formation of a special product, a tubercle. Very many of the influences which have been supposed to operate in its production do not bear any relation to it except as predisposing causes or those which facilitate the transmission of the virulent principles. Over-crowding, neglect of hygiene, long-continued lactation, inbreeding, high feeding, cold, damp, are simply predisposing causes and accelerate the course of the malady when developed. It is a disease that affects all animals. It is not only hereditary but congenital. It is more frequently seen in the well-bred Jerseys and Short-horns, due no doubt to the system of inbreeding and injudicious pampering which induces a condition of the animal's system in which they have less stamina to resist any disease. The disease is transmissible from animals to man and from man to animals. Tuberculosis in cattle and consumption in the human family are identical diseases. The special product of tuberculosis may localize itself in any part of the animal's structure and this local development of the disease will vary according to the manner of access of the germs. If by inhalation the tubercular deposits will be more pronounced in the lungs and air passages. If taken into the system with food or drink the tubercular deposits occur in the intestines and accessory organs. If by inoculation it manifests itself by a scrofulous infiltration of glands and deposits at the point of inoculation. It matters not the mode of entrance into system, it induces the disease if animal is susceptible. Tuberculosis has long been suspected as being a virulent malady, and this unfortunate property of such a serious disorder has without a doubt been repeatedly demonstrated in later years. Under certain circumstances it can be conveyed by the breath from diseased to healthy animals. It is communicable by cohabitation of healthy with diseased animals. Cow sheds become so contaminated by animals suffering from tuberculosis that these places will infect sound cattle which afterwards inhabit them. That the flesh and milk of diseased animals will produce tuberculosis in healthy stock when fed on it is undisputed. Young animals of whatever kind reared upon the milk of tuberculous cows receive the infection and develop the malady sooner or later. It is surmised that much of the infantile diarrhoea, scrofula and tuberculosis in the human family can in a measure be attributed to infection from tuberculous cows. Such milk is highly dangerous at all times. The sanitary inspection of dairy stock is confined to some of the Eastern States where, however, the disease is very prevalent, and such measures become absolutely necessary. To what extent the disease prevails in the Western States is not known, and any such information would be hard to obtain.

Animals tainted with the disease should not be bred, if bred from should not suckle their young, neither should the milk be given for consumption to any creature.

Animals so affected in fair flesh and the disease is localized should be destroyed, portions of their flesh may be allowed for food, the diseased parts being destroyed. But when the disease has made advancement upon some important organ and general emaciation is beginning to show the carcass should be condemned. Thorough cleaning and disinfection of the premises is necessary for the complete eradication of the disease.

H. G. K., Cabbell, Kas.—The symptoms given by you would strongly indicate inflammation of the brain and membranes, and the varying degree of convulsions

stupor-como, staggering or immobility and paralysis depend upon the seat of the congestion or inflammation at the time such symptoms are manifested. The stupor and loss of function where brain proper is congested, and paralysis, generally posterior extremities, when the cord becomes involved. The causes are various, generally due to a disordered condition of the digestive organs, from the high feeding of stimulating foods, as quantities of corn, cane and various grains and grasses. Alterations in temperature, bad water and injuries are other causes.

C. A. G., Wittrop, Kas.—A supernumerary teat with a milk sinus will be as troublesome to treat as a fistula of the teat itself. It is almost impossible to do anything for it during the period of lactation. It will be necessary to wait till the animal is dry, then by a little attention, as scarifying the milk channel and orifice of teat or the introduction of a small cylinder of nitrate of silver into sinus of teat, an adhesive inflammation will be created that will be sufficient to close the teat.

LUXATION OF THE PATELLA.—N. S., Walnut, Kas.—This is quite a common occurrence in young rapidly-growing animals, it frequently following debilitating disorders. Use the following blister upon both stifle joints: Powdered cantharides 1 drachm, biniodide of mercury 1 drachm, lard 2 ounces. Rub in quite thoroughly over region of stifle. After 24 hours keep the parts well greased. Keep animal quiet with hind quarters elevated. Repeat the blister in two weeks.

THE MARKETS.

By Telegraph, January 14, 1889.

LIVE STOCK MARKETS.

St. Louis. CATTLE—Receipts 15,000, shipments 100. Market easy. Choice heavy native steers \$4 70a5 30, fair to good native steers \$4 00a4 80, medium to choice butchers steers \$3 00a4 10, fair to good stockers and feeders \$2 00a3 15, grass rangers \$2 00a3 10. HOGS—Receipts 4,800, shipments 800. Market lower. Choice heavy and butcher's selections \$5 00a5 15, medium to prime packing \$5 00 a5 10, ordinary to best light grades \$5 00a5 05. SHEEP—Receipts 1,200, shipments 900. Market steady. Fair to choice \$3 00a4 60. Chicago. CATTLE—Receipts 15,000. Market 15c lower. Best, \$3 85a4 40; good, \$3 50a3 85; medium, \$3 25 a3 50; common, \$2 75a3 20; stockers, \$2 00a2 50; feeders, \$2 75a3 15; bulls, \$1 50a2 90; cows, \$1 15 a2 90. HOGS—Receipts 27,000. Market steady. Mixed, \$5 00a5 25; heavy, \$5 05a5 25; light, \$5 00 a5 25; skips, \$4 20a4 90. SHEEP—Receipts 7,500. Market firm. Natives, \$3 25a4 80; Texas, \$2 25a3 15; lambs, per cwt., \$4 00a4 90. Kansas City. CATTLE—Shippers and butchers stood for lower prices and trade was slow. A bunch of 1,500-lb steers brought \$4 25 which would have sold readily Saturday at \$4 40a4 50. HOGS—Packers wanted the bulk of their hogs at \$4 90, but raised their bids to \$4 92 1/2 a 4 95. Heavy hogs showed the most decline and sold a dime off. A few choice lights brought \$5 00, which was from 5 to 7 1/2 cents lower than Saturday. SHEEP—The fresh receipts were 1,195, part of which were consigned to Swift. Choice muttons were quoted from steady to a dime higher. Medium and common grades steady. The supply was soon exhausted and more could have been handled to an advantage. Sales at \$3 35a4 12 1/2.

PRODUCE MARKETS.

St. Louis. FLOUR—Dull and unchanged. WHEAT—Was unsettled and irregular until Chicago broke, when a decline set in from which there was but little recovery, and the close was 1/2c below Saturday. May and July were the only months traded in. No. 2 red, cash, 94c nominal; May, 97 1/2a98 1/2c; June, 94 1/2c asked; July, 86 1/2a87 1/2c. CORN—Dull but closed steady. No. 2 cash, 29 1/2a29 3/4c; February, 29 1/2a29 3/4c; May, 32 1/2a 32 3/4c. OATS—Entirely neglected, there being no sales of No. 2. RYE—Nothing done. Cash, 47c bid; May, 52c bid. HAY—Dull. Prairie, \$6 00a8 50; timothy, \$10 50a14 50. FLAXSEED—In demand at \$1 00. BUTTER—Dull. Creamery, 23a25c; dairy, 12a16c. EGGS—Dull at 13a13 1/4c. CORN MEAL—Firm at \$1 75a1 80. PORK—\$14 50. LARD—\$7 00. Chicago. A large business was transacted in wheat to-

day, and the prices again touched a lower point. The decline was solely the result of realizing on long wheat. Cash quotations were as follows: FLOUR—Weaker, with some sales 10c lower. WHEAT—No. 2 spring, 94 1/2a94 3/4c; No. 3 spring, 80a90c; No. 2 red, 94 1/2a94 3/4c. CORN—No. 2, 33 1/2a33 3/4c. OATS—No. 2, 24 1/2a24 3/4c. RYE—No. 2, 47 1/2c. FLAXSEED—No. 1, \$1 39 1/2. TIMOTHY—Prime, \$1 55. BUTTER—Nominal. Fancy creamery, 22a 28c; choice to fine, 20a22c; fine dairy, 16a19c. EGGS—Easier at 15a17c.

Kansas City.

WHEAT—Receipts at regular elevators since last report ... bushels; withdrawals, 2,195 bushels, leaving stock in store as reported to the Board of Trade to-day, 256,441 bushels. The market on 'change to-day was nominal, with no sales on the call of any of the different grades, either for cash or future delivery. No. 2 Red Winter—Cash, no bids nor offerings; January, no bids, 93c asked; February, no bids nor offerings; May, 96c bid, no offerings; year, 73 1/2c bid, 78c asked. No. 2 Soft Winter—Cash and January, no bids nor offerings; February, 95c bid, no offerings; May, 97 1/2c bid, 98 1/2c asked; year, no bids, 80c asked. CORN—Receipts at regular elevators since last report ... bushels; withdrawals, 4,013 bushels, leaving stock in store as reported to the Board of Trade to-day, 119,731 bushels. There was about a steady market on 'change to-day. On the call there were no sales either for cash or future delivery of any of the different grades. No. 2—Cash, 25 1/2c bids, 26 1/2c asked; January, no bids, 26c asked; February, no bids nor offerings; May, 29c bid, 29 1/2c asked. No. 2 White—Cash and January, no bids nor offerings; May, 30 1/2c bid, 30 3/4c asked. OATS—No. 2 cash and January, no bids nor offerings; February, 21c bid, no offerings; May, 24c bid, 24 1/2c asked. RYE—No. 2 cash, no bids nor offerings; January, no bids nor offerings. HAY—Receipts 11 cars. Firm. Strictly fancy prairie, \$6 00; good medium, \$4 00a4 50; poor, \$2 50a3 00; fancy timothy, \$9 50. SEEDS—We quote: Flaxseed, \$1 40 per bu. on a basis of pure. Castor beans, \$1 50 per bu. for prime. OIL-CAKE—Per 100 lbs. sacked, f. o. b., \$1 25; \$11 00 per 1,000 lbs.; \$21 00 per ton; car lots, \$20 00 per ton. FLOUR—A good feeling in the market but moving slowly. Quotations are for unestablished brands in car lots, per 1/2 bbl. in sacks, as follows: XX, \$1 00; XXX, \$1 10; family, \$1 30; choice, \$1 65; fancy, \$1 90; extra fancy, \$2 10a2 20; patent, \$2 40a2 50. BUTTER—Receipts large and market weak. Most of the roll and storepacked going to packers. We quote: Creamery, fancy, 26c; good, 22c; dairy, fancy, 20c; fancy roll, 12a13c; good to choice store-packed, 11a14c; poor, 9c. CHEESE—We quote: Full cream, twins, 12a 12 1/2c; full cream, Young America, 11 1/2a12c. EGGS—Receipts fair and market weak at 14c per dozen for strictly fresh. Held stock slow at 12c. APPLES—Supply large; \$1 25a2 00 per bbl. POTATOES—Irish—Market well supplied; home-grown, 30a35c per bus.; Colorado and Utah, 60a65c per bus.; Iowa and Nebraska, choice, 80a85c per bus. Sweet potatoes, white and red, 50c; yellow, 65a75c per bus. Onions, 40a50c per bus. Turnips, 25c per bus. BROOKCORN—Green, self working, 4c; green hurl, 4 1/2c; green inside and covers, 2 1/2a 3c; red tipped and common, self working, 2c; crooked, 1c. PROVISIONS—Following quotations are for round lots. Job lots usually 1/2c higher. Sugar-cured meats (canned or plain): Hams 10 1/2c, breakfast bacon 10c, dried beef 8c. Dry salt meats: clear rib sides \$7 05, long clear sides \$6 80, shoulders \$6 30, short clear sides \$6 80. Smoked meats: clear rib sides \$8 05, long clear sides \$7 80, shoulders \$7 00, short clear sides \$7 80. Barrel meats: mess pork \$13 75. Choice tierce lard, \$7 50.

Topeka Markets.

WHOLESALE. WHEAT—No. 2 soft, 95c; No. 2 red, 92c; No. 3, 84c; No. 4, 75a80c; rejected, 65a75c. CORN—25c. OATS—24c. BUCKWHEAT—65c. RETAIL. FLOUR—Patent, \$3 50; fancy, \$3 00; family, \$2 60; buckwheat, \$5 00. MILLSTUFFS—Corn meal (bolted), \$1 10; shorts, 60c; bran, 55c; corn chop, 65c. COAL—Leavenworth, \$4 50 per ton; Osage shaft, \$4 50; Scranton, \$4 00; anthracite, \$12 00; canal, \$8 50. BUTTER—Country roll, 25c; fair, 18c; packing house, 20c; cooking, 15c. EGGS—25c per dozen. POULTRY—Live—Chickens, per dozen, \$2 00

a2 50; turkeys, per pound, 8a10c. Dressed—Chicken, per pound, 10a12 1/2c; turkeys, per pound, 12 1/2a15c. VEGETABLES—Irish potatoes, Iowa grown, 50c per bus.; Colorado, 80c. Sweet potatoes, \$1 20 per bus. Turnips, 40c per bus.

For \$1.50 we will send one of Blake's Weather Tables for 1889 and the KANSAS FARMER for one year.

For Trade -- Bargains!

I have Improved Property, Vacant Lots and a few Acre Lots in North Park. Will trade for Improved Farms. W. W. MANSPEAKER, 711 Kansas Ave., Topeka, Kas.

FOR SALE!

Blanchard 1232, Percheron Stud Book of France, Vol. I, page 41, and 2512, Percheron Stud Book of America, Vol. III, page 66. Is a full-blood Percheron, foaled 1881, imported 1883 by M. W. Dunham, Wayne, Ill. Will weigh, in good condition, 2,000 pounds, is a sure foal-getter and can show a fine lot of colts. Reason for selling, disposing of my stock farm. Price low and terms easy. For further particulars address C. R. MILLER, Lock Box 230, Wichita, Kansas.

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The Busy Bee.

Spring Management of Bees.

Some time ago the following article, prepared by Mrs. S. Harrison, Peoria, Illinois, appeared in *Prairie Farmer*. Mrs. H. is good authority on bee-keeping:

"Whether bees will be a paying investment or otherwise, the coming season, depends largely on their spring management. I'll take back all I have ever said about stimulating bees by feeding syrup and rye meal in early spring. A very strong colony may be benefited by early stimulating, but take them as they will average in an apiary of one hundred colonies, more or less, much harm will be done. Stimulating causes the queen to lay, and the bees will venture out in inclement weather, in search of water, and many will never return. Should the weather turn very cold, it causes the bees to contract their cluster, leaving brood exposed, and it will perish. More old bees will die than young ones are raised, and the colony dwindles. The quieter bees keep during the raw, cool days of early spring, the better.

"When warm weather comes to stay, it pays big money to feed, especially in the interim following fruit bloom, and before white clover blossoms. Any time, when there is a dearth, honey bees will patronize a feeder, but as soon as flowers yield nectar, they desert them. Feed ought not to be given in such quantities that bees will store it in the brood apartment, crowding out the queen. Give it in such quantities as will promote healthy increase. Enough should be given each day to meet the wants of the bees. If a colony has been fed for some time, and the supply ceases, when nothing can be gleaned in the fields, the brood may perish. It may pay in some localities to feed rye meal, but here, whenever it is warm enough for bees to fly, natural pollen is abundant. The overflow from the river draws the frost from the roots of willows and elms long before it is out on high lands, thus causing them to bloom early. Rye meal should be furnished bees in a sunny place, sheltered from winds, and a piece of honey near it, to attract them. When pollen is wanting here, bees frequent mills, feed stores, etc. I have seen them working on flour bags in grocery stores.

"Many bee-feeders are for sale, each dealer advocating his own. A Mason fruit jar, with a perforated cover, which can be set over any opening above the bees, is handy and economical, and can be used for canning fruit in autumn, as it will not then be needed for the bees. The 'pints' are of nice size for feeders, and are less liable to leak than the quarts. If these feeders are filled the day before they are set over the bees, the feed will be less liable to run out faster than the bees can take it. These feeders should be set level, and then no sirup runs out, but it is taken out by the bees only through the perforations.

"Small tin basins which can be purchased cheaply, and nested away when not in use, occupying small space, make good feeders, by tying muslin loosely over the top when filled with sirup; the muslin settling down as the bees use the feed, and none are drowned. Almost any can, pan or pail can be utilized as a feeder in warm weather. In whatever way bees are fed, care must be taken that no outside bees gain access, as this would induce robbing... It is quite cool to-day (April 8), and thick ice formed last night. A little pollen was gathered April 5 and 6; much more might have been, had it not been so dry.

CHICAGO.

KANSAS CITY.

ST. LOUIS.

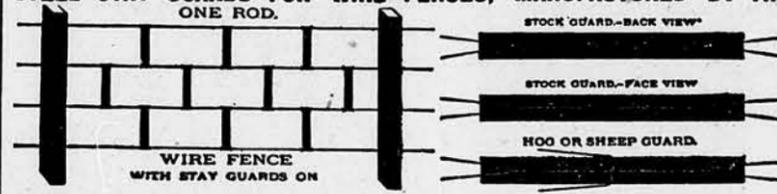
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The dancing mania, which arose in Flanders and Germany during the fourteenth century, was regarded as a display of satanic power, and the popular reason assigned was that the boots with pointed toes, which had been recently introduced, were peculiarly offensive to the Almighty.

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 Certain Cure. Original Statement, 1881. Renewed, June 29, 1887. Over two months ago fell on the ice, badly dislocating my shoulder, causing great suffering; one application St. Jacobs Oil gave relief; one bottle gave final cure. No return of pain. W. T. DOWDALL, Postmaster, Peoria, Illinois.
 Certain Cure. Original Statement, 1884. Renewed, June 14, 1887. Have not felt the least effects from my hurt since I was cured, three years ago, of a terrible sprain by St. Jacobs Oil. S. W. DIXON, Baraboo Station, Wis.
 Certain Cure. Original Statement, 1878. Renewed, June 27, 1887. Used St. Jacobs Oil about 9 years ago. Sprained my back; had to be carried home; instead of going to doctor used St. Jacobs Oil. In a week was all right. GEORGE M. GRAY, City Bill-Poster, Dover, N. H.
 AT DRUGGISTS AND DEALERS.
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Pigs from three first-class boars for sale. Am taking orders for fall pigs, to be delivered at from eight to ten weeks old, at \$8 per head, or in pairs \$15. Sows in pig or with litters, for sale. A few choice males on hand. My stock is of the best strains in America. Inspection desired. Stock recorded in Ohio Poland-China Record. Pigs from twelve exceeding fine sows. Took six first and two second premiums at Topeka and Ottawa, only places shown, including grand sweepstakes at Ottawa. V. B. HOWEY, Box 103, Topeka, Kas.

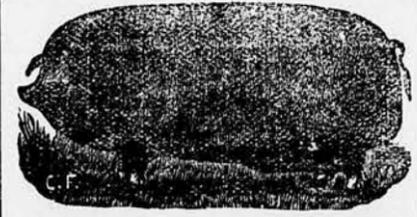
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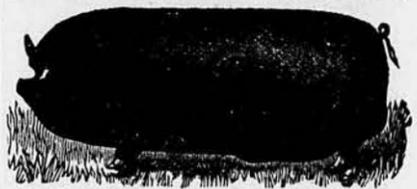
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The Echo Herd.



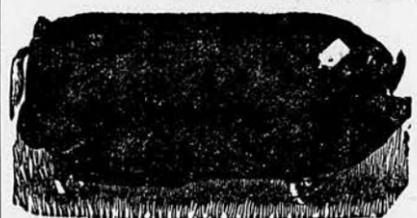
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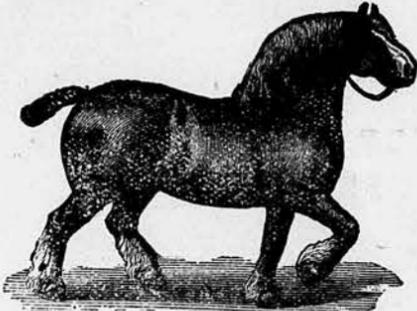


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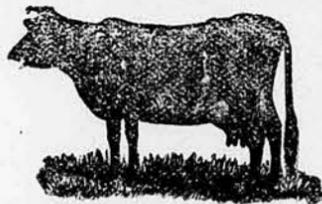


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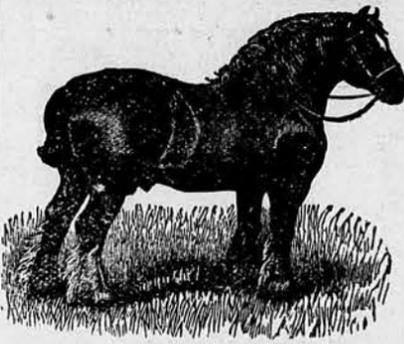
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Remember the FARMER is now \$1 a year.

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, 1863, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal of said strays, to forward by mail, notice containing 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 falls 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 each 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 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 JANUARY 3, 1889.

Wabaunsee county—C. O. Kinne, clerk.

COW—Taken up by Oscar Johnson, in Kaw tp., P. O. St. Marys, about December 1, 1888, one roan cow, branded P on right hip, crop off left ear; valued at \$15. COW—Taken up by T. F. McClary, in Kaw tp., P. O. St. Marys, about December 1, 1888, one red cow, white in face, branded G on right hip; valued at \$16. COW—By same, one red spotted cow, white neck; valued at \$14. COW—By same, one large roan cow, nearly white; valued at \$14. COW—By same, one red cow, white in face; valued at \$16. COW—By same, one roan cow, chain around neck; valued at \$14.

Johnson county—W. M. Adams, clerk.

MULE—Taken up by John Hansen, in Oxford tp., P. O. Stanley, December 5, 1888, one bay male mule, supposed to be 20 years old, no marks or brands; valued at \$10. COW—Taken up by C. O. Proctor, in Shawnee tp., P. O. Glenn, December 18, 1888, one bright red cow, 7 years old, no marks or brands; valued at \$10.

Montgomery county—G. W. Fulmer, clerk.

COW—Taken up by E. J. Lee, in Caney tp., December 11, 1888, one red cow, 7 or 8 years old, two spots in left ear, large circle on left shoulder and small circle on left hip; valued at \$12. COW—By same, one roan cow, 7 years old, marks and brands same as above; valued at \$12. HEIFER—By same, one heifer, 2 years old, marks and brands as above; valued at \$12. HEIFER—By same, one yearling heifer, marks and brands as above; valued at \$10.

Chase county—J. S. Stanley, clerk.

COW AND CALF—Taken up by Jacob Daub, in Falls tp., P. O. Cottonwood Falls, December 4, 1888, one roan cow, 2 years old, tin tag in right ear; valued at \$10. Jefferson county—E. L. Worswick, clerk.

STEER—Taken up by Charles E. Betts, in Rural tp., P. O. Williamstown, October 15, 1888, one red yearling steer, white on belly, face and end of tail; valued at \$13. Shawnee county—D. N. Burdge, clerk.

STEER—Taken up by Ilewellyn Bond, in Dover tp., P. O. Dover, December 12, 1888, one red-roan 3-year-old steer, white spot in forehead; valued at \$23. STEER—By same, one red steer, 1 year old, white spot; valued at \$12. STEER—Taken up by E. G. Buck, P. O. Dover, December 18, 1888, one red-roan steer, 2 years old; valued at \$15. Franklin county—T. F. Ankeny, clerk.

STEER—Taken up by W. P. Haley, in Hays tp., November 1, 1888, one red and white yearling steer, no marks or brands; valued at \$12. FOR WEEK ENDING JAN'Y 10, 1889.

Shawnee county—D. N. Burdge, clerk.

STEER—Taken up by Joseph Dolifka, in Auburn tp., one red steer, 2 years old past, no marks or brands. STEER—By same, one red steer, white spots, 2 years old past, no marks or brands.

Pottawatomie county—L. D. Hart, clerk.

STEER—Taken up by N. P. Axelson, in Blue Valley tp., December 4, 1888, one red steer, a few white hairs mixed in, white in face, 3 years old past; valued at \$30. Nemaha county—W. E. Young, clerk.

STEER—Taken up by E. M. Williams, in Gilman tp., P. O. Oneida, December 16, 1888, one red and white steer, 1 year old; valued at \$15.

STEER—Taken up by William Calnan, in Clear Creek tp., P. O. Clear Creek, December 3, 1888, one dark red steer, 1 year old, no marks or brands; valued at \$15.

STEER—By same, one dark red steer, 1 year old, no marks or brands; valued at \$15. STEER—Taken up by M. Laughlin, in Mitchell tp., P. O. Seneca, October 22, 1888, one red steer, 3 years old, brand on right hip supposed to be 6, right ear cropped; valued at \$27.

Cherokee county—J. C. Atkinson, clerk.

HORSE—Taken up by Joseph Coal, in Shawnee tp., December 15, 1888, one strawberry roan horse, 4 years old, 16 hands high, star in forehead, left hind foot white; valued at \$30. HORSE—By same, one dark roan horse, 4 years old, 16 hands high, no marks; valued at \$35.

Lyon county—Roland Lakin, clerk.

COW AND CALF—Taken up by Levi Dumbaid, in Elmendorf tp., P. O. Hartford, one red 4-year-old cow, some white on belly, no brands visible; calf 4 months old; side; valued at \$15. (Taken up December 19, 1888.)

STEER—Taken up by Robert Best, in Ivy tp., P. O. Admire, November 20, 1888, one black 2-year-old steer, line tack, white belly, ears disfigured; valued at \$15. STEER—Taken up by J. W. Floyd, in Americus tp., November 23, 1888, one yearling or small 2-year-old red steer, some white on belly; valued at \$12.

STEER—Taken up by S. L. Ruggles, in Americus tp., December 15, 1888, one red and white 2-year-old steer, short tail, branded I on right hip; valued at \$22. STEER—Taken up by E. P. Moon, in Pike tp., November 6, 1888, one red yearling steer, white on belly; valued at \$12.

STEER—Taken up by J. A. Gingerich, in Reading tp., December 11, 1888, one red yearling steer, no marks or brands; valued at \$11. FOR WEEK ENDING JAN'Y 17, 1889.

Anderson county—S. Durall, clerk.

STEER—Taken up by Joseph Greer, December 1, 1888, one small white roan 2-year-old steer, branded P on right hip; valued at \$18. Pottawatomie county—L. D. Hart, clerk.

STEER—Taken up by C. Umscheid, in Pottawatomie tp., one red and white spotted steer, 1 year old, split in left ear. Coffey county—H. B. Cheney, clerk.

HEIFER—Taken up by W. H. Robson, in Key West tp., one light roan heifer, 1 year old, no marks or brands; valued at \$12. Butler county—T. O. Castle, clerk.

2 COLTS—Taken up by John B. Tilley, in Hickory tp., P. O. Keighly, December 4, 1888, two 2-year-old horse colts—one black, with a few white hairs in forehead; the other brown or bay, with white blaze in face; valued at \$20 each. Wilson county—D. N. Willits, clerk.

COW—Taken up by James White, in Guilford tp., December 26, 1888, one red cow, 4 years old, no marks or brands; valued at \$5. CITY HOTEL, CHICAGO, ILL. Cor. State and Sixteenth Sts.

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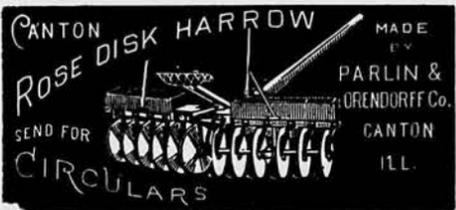
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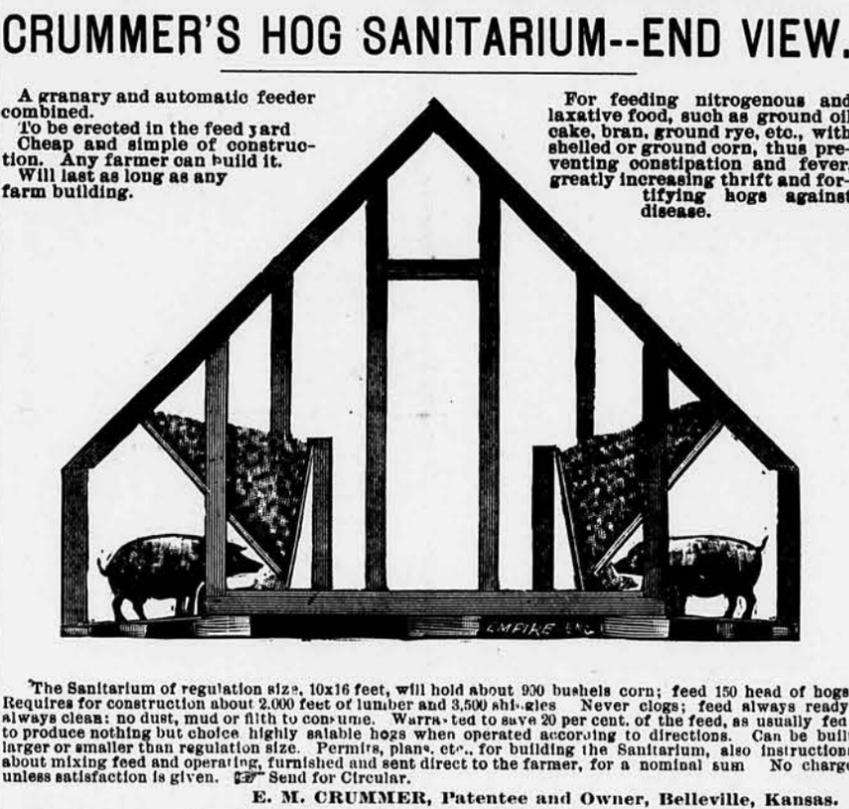
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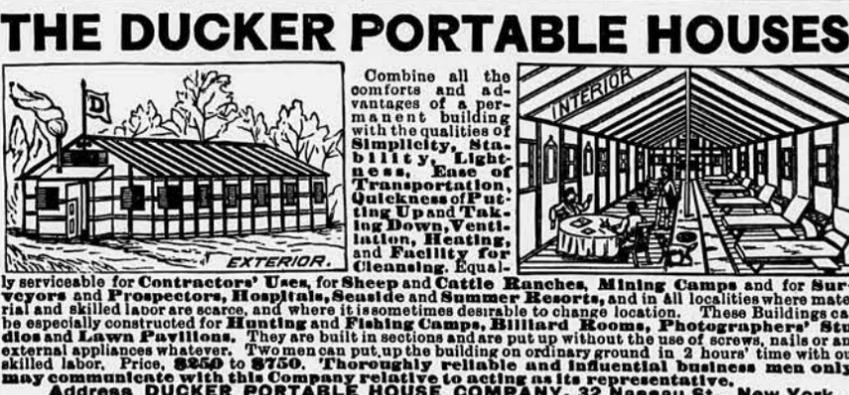
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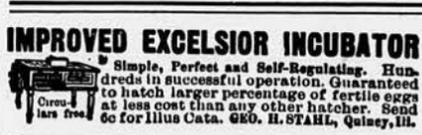
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