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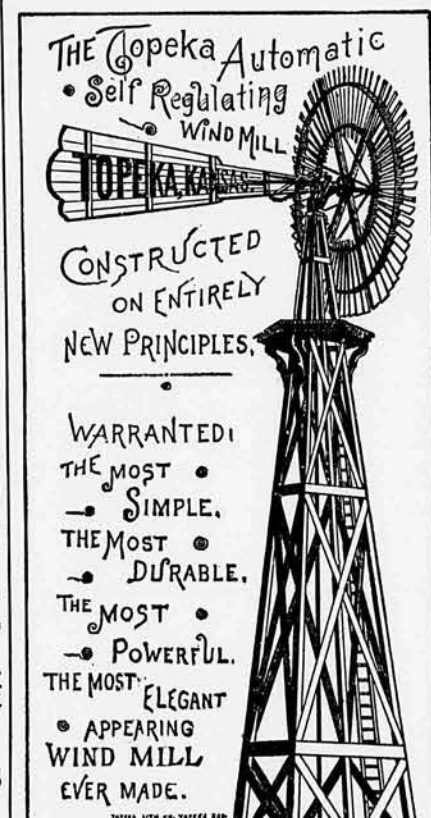
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Agricultural Matters.

ALFALFA AS A FARM CROP.

By Prof. S. A. Wilson, and read before the Farmers' Institute at Sterling, Kas., December 14, 1888.

In discussing the topic "Alfalfa as a Farm Crop," four points require consideration: (1) The character of the plant. (2) Its merits as a forage plant. (3) The cultivation and care of the crop. (4) Its adaption to this locality.

First—The plant itself, alfalfa, as it is called by those who raise it, lucerne, as it is generally named in the seed catalogues, belongs to the same botanical family as the common clovers. It is a perennial, living for many years in a soil and climate suited to its growth. In California, where it is a staple crop, it grows year after year without reseeded. In Colorado, where it has been in general cultivation not more than six or seven years, the fields have required no reseeded. It is a strong and rapid grower, at blossoming time being from one to three feet high, according to conditions of light, heat and moisture. The stem is erect. Two of the leading features of the plant are the length and strength of the roots. These if they have sufficient surface moisture at first, continue their growth until they reach soil which is constantly moist. When water is reached, whether at five, ten or twenty feet, the plant draws substance enough from it for life and moderate growth, no matter whether the surface has moisture or not. It bears an abundance of sweet-smelling lilac-colored or bluish flowers. If allowed to continue growing, it will bear blossoms all summer and the stalk will become very woody and shrub-like. It is cultivated for hay.

This leads to the second point to be considered, viz.: its merits as a forage plant. And in the first place, those who have had experience in raising it find that it is especially valuable from its ability to adopt itself to varied conditions. In California, under favorable circumstances the crop is cut six times during the season. In Colorado, with plenty of water and sunshine, it is cut three or four times each season, the first cutting being about the middle of June, those following being at intervals of from four to six weeks. The product under favorable conditions is from one to three tons per acre for each cutting. But when the special value of alfalfa shows itself is during a season which but little water can be had,

This summer on our own place in Colorado, I do not think there was more than a full week's watering during the whole season. In that locality the water for irrigation is drawn from the Platte, and this year there was but little water in the river and the most of that was drawn out by ditches having the priority over ours. Yet the alfalfa was cut just as often as if there had been sufficient water. After the first cutting, which matures without irrigation, the other cuttings were perhaps not a half crop, but a great deal of hay was cut. The stand will be just as good next year as it ever was and there is a certainty of securing at least one full crop, with not more than one-third of the average annual rainfall that Kansas is credited with.

Not only is it valuable on this account, but it is of value for the quality of food supplied as well as for the quantity. It is good horse feed; it is the very best of feed for cows and sheep; it is excellent hog feed. It may be fed either green or cured.

An article in a recent Garden City paper made this statement: "A horse that has been accustomed to prairie hay will not at first eat it heartily, just as he will not eat oil meal heartily for a meal or two. But after eating it a few times he will prefer it to any other ordinary feed. Horses for ordinary farm work will fatten on alfalfa and a little grain, far more readily than upon prairie hay and grain and will do fully as much work."

There is no better feed for cattle than alfalfa which has been properly put up. A cow will greatly increase her milk within a week or two after alfalfa has been first feed to her. There is no need for the farmers' wife to buy Wells and Richardson's butter color if alfalfa is fed. There will be yellow butter the year round, in winter as well as in summer.

It is excellent hog feed. The more common breeds will grow rapidly on a diet of alfalfa alone. I have kept twenty-five head nicely through the winter feeding them nothing but alfalfa. It is fed to them just as it is fed to cattle. It is as natural for the farmer who raises alfalfa to talk of "haying the hogs," as of "haying the cows." These hogs will be kept growing on an alfalfa diet pure and simple but they will not fatten without the addition of some grain to their food. But the red hog will not only grow but will keep fat on this kind of hay. The growth of alfalfa has made hog-raising a profitable source of income in eastern Colorado.

It is a good honey plant. As in other clovers, the bloom is rich in honey, and as in a locality where it is extensively raised, all the farmers can not cut their alfalfa exactly at the proper time, when just coming into bloom, there are always somewhere fields where the bee can find honey. Bees will fill their comb, increase and swarm from the parent hive in a remarkably short time. The quality of honey made from alfalfa is excellent.

The seed is also profitable. When seed is raised there is no attempt to cut more than two crops, the first for hay, the second is left to ripen and is cut for feed. Seven bushels per acre is considered an average crop of seed. The farmer gets from the seed man as a general rule about \$5 a bushel. When there is drouth, this is the best plan, to raise one full crop of hay, watered by the spring rains and to let the second ripen. After the second crop is taken off, sometimes enough springs up to make good fall pasture.

Among other merits of alfalfa may be mentioned these: it does not need to be sowed each year; after the first year it entirely drives out the weeds; it is pleasant to work with; there is a ready sale on the premises for every ton at a fair price, if the sod is plowed under, there is a large increase in the yield of wheat, on the same ground.

Seven years ago the farmers along the Platte river were raisers of small grain almost exclusively. The corn-growing season was too short to put in the larger varieties of corn. Twenty bushels per acre was a fair crop. There was but little hay and that was sold. The price of small grain was coming

down every year, and they were getting deeper in debt each year. A few patches of alfalfa had been put in by adventurous experimenters. The experiment proves a success. The ranches were seeded largely to alfalfa. The result has been that there is scarcely a farmer who has not had a fair degree of prosperity. The problem of winter feed for stock has been solved. All are gathering stock around them. All find it much easier to meet bills, and some are getting rich from that one crop.

But are there no demerits, no advantages? The statement has been made that it was good for work horses. It is not feed for driving horses. An alfalfa-fed horse, driven rapidly, will give out much sooner than one fed on a drier hay. Alfalfa acts on the bowels and kidneys, and while it cannot be said to be an unhealthy activity, yet it unfits for hard driving.

Alfalfa is good pasturage for horses. They will not injure themselves because they eat slowly. But as a pasture for cows, it must be watched very carefully. As other clovers, it will bloat if fed while damp, and will bloat much more quickly than ordinary clovers. Cattle should not be allowed to feed on it, while dew or frost is on the plant or while it is wet with rain. A cow will die in ten or fifteen minutes after eating damp alfalfa, unless the knife is used immediately.

Third.—The cultivation and care of the crop. Alfalfa does well on either loam or sandy soil. Scarcely any difference can be seen in the amount produced on rich, black soil, or on soil that is almost pure sand. It is more difficult to secure a stand on very sandy land, but a stand having been secured, there is no further trouble. As a rule, the seed is sowed as soon as danger of frost is over with, from the first to middle of April. If a crop of hay is desired the first year, it is sowed alone. When sowed alone, the first growth is apparently only a crop of weeds, but when these are of good size, if they are mowed and taken off, the single slender stalk which first comes up is cut and stools or spreads out and a small crop is realized the second cutting.

The practice most often followed, however, is to sow it with oats or some other small grain. The cutting of the grain will produce the spreading but no hay can be expected the first year. To be sure of a sufficient stand from fifteen to twenty pounds of seed must be sown. The two conditions necessary for best growth are water and sunshine. When irrigation is practiced and when water is abundant, the rule is to cut, water thoroughly, leave to itself for about three weeks, water again and then cut. No watering is needed until after the first cutting, although irrigation may be employed before. If the weather is hot the hay is left to dry one day, is raked the next, bunched the next, stacked the next. If left to lie too long in the hot sun, the leaves, which are the most valuable part for feed, fall off and are lost. The last crop requires time to cure. It is sometimes necessary to put it up in or after a snow storm.

Fourth.—Its adaption to this part of Kansas. What has been said in regard to the merits and care of the plant has been a matter of personal knowledge, and experience in performing the details of sowing, irrigating, putting up and feeding. What is said on this point is a mere matter of opinion based on a knowledge of the plant and its nature.

I believe it could be successfully cultivated here; that two crops could at least be raised, one a very full one, in the spring, and another either of seed or hay afterwards. It might be more difficult in some seasons to secure a stand, than in others, on account of the drouth killing the tender plants before they had sufficient deepness of root. I can see no essential difference in soil. There is sufficient rainfall and sufficient sunshine to produce fair crops. It would produce more hay—a great deal more—than the annual crop of prairie grass, and would be much easier to handle. It is almost impossible to build a load of alfalfa hay on a wagon so that it will fall off.

Alfalfa has been successfully raised in some parts of the Eastern States. The Chicago Tribune of November 3, contains an account of the successful growth of alfalfa at the State Industrial University, at Champagne, Illinois. If it can be grown there it most certainly can be here where the conditions are much more favorable. It has been supposed that one drawback there would be the alternate freezes and thaws in winter and spring which

would tend to kill it. As far as I have seen, the winters here are just as favorable for its growth as where it is grown most successfully. It has been the salvation of the country along the Platte river in Colorado. It would, I think, be a great advantage to this country.

GENERAL FARMING AND STOCK-RAISING.

By Wilson Keys, and read before the Farmers' Institute, at Sterling, Kas., December 14, 1888.

MR. PRESIDENT AND GENTLEMEN:

—The subject of general farming and stock-raising is one of great importance to men in Kansas, situated as we are, far from the great markets, and in a climate subject to such sudden changes that any one crop that we may plant is too uncertain for us to make a specialty of it. Therefore it becomes necessary for us to diversify our crops. What crops shall we raise to realize a fair return for our labor? From my experience of fourteen years in this State I believe that the safest and best plan is to make feed crops the chief object. A little wheat when you have a piece of land well suited to it and you can have it early plowed and early sown; then you can have good fall pasture from it and, in spring, if it don't show as though it would make it a paying crop, continue to pasture it until you are done with all your other planting, then plant it to corn for feed. I find late corn to be the best for fodder; cut pretty green and put in large shocks. Oats should have a place on every farm; late fall or winter plowing is best for oats; they should be sown early in March in this section of the country, and from two and one-fourth to two and one-half bushels of seed per acre. Great pains should be taken to save all the straw of wheat and oats. I consider the straw of an oats crop almost equal to the grain. I have not much use for millet. Dwarf broomcorn, when cut and well cured, makes a very good feed for a change, horses, and cattle are all fond of it, and it rarely fails to make a fair crop of fodder and some brush. It should be planted thick and will do well after wheat or even on oats stubble if the season is at all favorable. Also an early variety of field corn can be made to pay on wheat stubble. I have thirty-three acres of such fodder that I am feeding now, corn and all; it did not get ripe, but was cut and shocked in large shocks before frost. I run it through a cutter and feed in mangers; it is eaten clean.

Having laid out a good line of feed crops, the next thing that would naturally suggest itself would be what to do with it. Feed it to young stock of some kind—young cattle and colts. Every farmer with 160 acres of land in this part of the country should raise from two to four colts every year, from ten to twenty calves—not scrubs, and your colts should be from some of the improved breeds. If your mares are large and a little rough the Cleveland Bay will make a good cross, giving style and action; if your mares are light use some of the heavy Draft horses—I prefer the Norman. In cattle I would not advise a man to sell all his old stock off and buy some new high-priced cows, but I certainly would advise every man to use none but a thoroughbred bull of some of the best beef breeds. Men differ in opinion as to which is the best. There is a number that are good, but taking everything into consideration I prefer the Galloway; they are hardy, good feeders, cannot be surpassed for beef, and best of all are hornless. I am satisfied that the improvement of live stock in the United States in the last twenty-five years has done more for the farmers than anything else. Improvement in farm implements has also done much for us. To utilize this improved stock and machinery to the best advantage should be the aim of every tiller of the soil, and the man who fails to do so in these times of sharp competition sooner or later will come to grief, for time and tide wait for no man, and you must be on time or be left.

Several authorities unite in declaring, through the Rural New Yorker, that the separator does not purify milk. It can not take out any substances save those that are heavier than the milk. It can not and does not remove disease germs.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

FEBRUARY 8, 1889. — Berridge Bros., English Shire Stallions, Lincoln, Neb.

Do Breeders Ship What They Advertise?

EDITOR KANSAS FARMER:—One looking over the advertisements in KANSAS FARMER and wanting to buy a breeding hog, would hardly know which to write to, as one claims to have the largest herd, the next the finest, another the best blood, etc. This is all very good. I always believe if we do not blow our own horn no one will blow it for us. But come, brother swine-breeders, let's talk this matter over. How often have we seen our neighbor breeder send way off to Illinois, or some other State, to get a male hog, with a view of getting something extra, and lo! to his disappointment, had better pigs in his own pen. I claim the man that buys is as much to blame as the man that sells. First place, so many men that want a hog write like this: "What is your price for a No. 1 boar pig, Poland-China, 6 or 7 months old?" This is about all. The breeder has got to sit down and study how to fill an answer to that letter; he has said nothing about bone, nothing about head and ears, nothing about color, whether he objects to white spots or not, nothing about nose, style, and a dozen other points that the breeder (if he is a good one, and if he is not he ought not to be in the business,) has to guess at and wonder if that pig will suit him or some other one that excels in some other points, for every breeder ought to study to please his patrons. I will give my plan and I hope to hear from some others on this subject. If I am wrong right me. Let the man that wants to buy write to the breeder just what kind of a pig he wants; state color, size, kind of ear, head and nose, bone, etc., whether he wants to head a herd with him and show at the fairs; state every minute point, and I am sure I would, as I believe every reliable breeder would, take a delight in answering such letters.

Now for the next. I will ship from this on to any responsible party and guarantee to be just as I describe him, or purchaser can return pig at my expense. Breeders, what say you? Let's all adopt this plan. Some one says: "That will not do; we have all kinds of men to deal with, and some will take advantage of it." But let's give it a trial.

One thought more: Every breeder that pays attention to his pigs daily knows which pigs are developing and which are going to make the best hogs, and if he thinks anything of his reputation he is going to ship that kind of a hog. I always make a man that visits my herd choose his own pig, and then I know he is suited. Another thing I want to speak about is this: I have received letters already in regard to buying a pig, and answered same. First I pick out a pig that I think will suit. I write description of pig minutely, tell the price, his dam and sire, and also inform the party I will hold pig for so many days and await his orders. This is well enough, but Mr. buyer never answered yes or no; you wonder whether he got letter or not. This is not right; the man wanting pig ought to answer always. If not wanting to pay price say so, for it gives the breeder a chance to sell to next man. Not long ago I received a letter from a subscriber to KANSAS FARMER, wanting a pig. I answered same, gave him price of pig \$18; it was a model pig. I have never

got a scratch of a pen from this man yet. It must have scared him. I had three chances to sell the pig to parties visiting my herd before the stated time I told Mr. — that I would hold hog. I finally sold hog to buyer No 3, and not a word in regard to price. Next, I have no trouble selling pigs to farmers that have used a pedigree hog; they seem to know the value and seem to be willing to pay the extra few dollars asked for the pedigree animal, seeing as it is a man can not keep up the recording and pay the prices he has to pay for choice breeders and compete with scrub hogs. Let the man that does not believe in good stock go to a public sale and see what fetches the money. He will have to say that the good thoroughbred stock always brings the good price, yea not only good, but a little more than they are worth. J. D. ZILLER.
Hiawatha, Kas.

The Horse Business.

It does not require a great deal of astuteness to discover that there is money in the horse business. Some forty exhibitors showed 400 head of horses at the American Horse Show at Chicago, the past two weeks, while hundreds were turned away for want of room. Not only were the horses a sleek, fat and frolicsome set, but their owners looked like a prosperous and well-to-do class. Many of these men have grown wealthy as importers, and for their enterprise and zeal they deserve the success they have attained; but it is not to the importing business we would direct our readers. That requires considerable capital, involves great risk and demands the best of skill in selecting, handling, advertising and selling. Besides, so great is the competition that there is not now the profit that earlier importers made. The prices demanded for first-class horses in Scotland, England and France, are so high that the margins to be made on such horses are rather narrow. True, second and third-class colts can be imported much cheaper, but so keen in their judgment have American breeders become of late years that they discriminate sharply against the inferior classes, and many of them are left in the hands of the importers, who often farm them out to irresponsible parties to impose upon the less intelligent class of farmers in their vicinity. This is an evil that cannot be abated too soon. Because the service of a horse can be had for a small sum, and on easy terms, does not make the investment a good one. Because a colt is "guaranteed to stand up and suck before payment for the service is required" does not prove that the owner of the mare gets the best return for his money. It is the best horse—best as an individual, best in his breeding, and best as a sire of good horses—that is cheapest, no matter what the price of service may be.

But it is to the money to be made by breeding high-grade or pure-bred mares to pure-bred sires that we wish again to direct the attention of our readers. The well-to-do farmer may be very proud of his team of geldings, and may argue with considerable show of reason, "Now I can get \$500 for that team; but it pleases me well, I have considerable work to do, and I guess it is worth just as much to me as to the Jones Iron Company." With all due respect to his opinion we think experience proves the conclusion incorrect. The Jones Iron Company cannot use mares, but will replace that team every three years with another as good. The farmer can purchase three good mares for the \$500, can get as much work from the three as from the team, and on an average can raise five colts every two years worth at weaning time \$50 each above the price

of the horse service. It is not, however, his best plan to sell the colts as weanlings, but to keep them until the horse colts are of marketable age and well broken, and the mares are old enough to breed. He must have roomy pastures, feeding lots and stables, but he feeds all his hay and grain to a good home market, and as his mares and young horses do his farm work, so he is that much better off than if he fed cattle. Each year his number of brood mares increases, and he can rapidly weed out the older and inferior ones. If he constantly breeds to a particular type of horses, whether English or French, and should he confine himself to the one or the other, he will have but little difficulty in furnishing young teams closely matched in size, color, form, action and disposition. His mares, if the original three were half-bloods, grade up to approximate pure-bred stock in all characteristics essential to breeding for the market, and as this is the case his prices for teams can steadily advance.

There is only one phase of this horse business that surpasses that we have outlined, and that is the use of pure-bred and registered mares, and we are glad to know that there are many American farmers who are now doing so. An outlay of \$2,000 or \$3,000 for the three mares to start with puts the farmer on the upper plane at once. He can then sell his young stock of both sexes for breeding purposes at a younger age and greatly advanced prices, or can furnish fancy mated teams for work at figures highly remunerative.—*National Live Stock Journal.*

The Improved Red Polls.

Red Polled cattle were brought to America from Norfolk and Suffolk counties, England, as early as the seventeenth century. They were then called Suffolk Duns, and their descendants may still be found in considerable numbers in Vermont, Virginia and Mississippi, while from a Red Polled heifer brought to Massachusetts in 1847, have descended the Polled or no-horned milking herds of that State. The first regular importation of the improved Red Polled cattle was made by G. F. Taber, of Putnam county, N. Y., in 1873, the year before they were pedigreed in England, although the stock had been purely bred there for over 100 years. Mr. Taber's importation consisted of three heifers and a bull, all of which are yet alive and in a healthy breeding condition. From that time until August, 1887, there were twenty-three regular importations, and thus far, during 1888, nine importations of Red Polled cattle have been made. Vol. I of the American Red Polled Herd Book was issued in August, 1887, and contained a history of the breed, the rules and records of the clubs, the pedigrees of 259 bulls and 485 cows, and much other information about these cattle.

Red Polls were first imported by Mr. Taber exclusively for dairy purposes, but the importations of Messrs. Mead and Kimball in 1882 contained magnificent beef animals. These, with later importations of beefy Red Polls, have occasioned an active demand in the western States for Red Polls as beef cattle. Indeed, the demand for this breed is much in excess of the supply. The herds at present in this country are so small that each owner has upon the average not more than three or four animals, which accounts for their not having been extensively shown at the large fairs. There was a very creditable display of Red Polls at the St. Louis exhibition last year, however, and the breed has been quite extensively exhibited this year, especially in Iowa, Nebraska, Minnesota, Wisconsin, Mis-

souri and Ohio, where it has a particularly strong following.

In color, this breed is solid red throughout, with the exception that the tip of the tail and sometimes a portion of the udder may be white. There are no horns, slugs or abortive horns on pure-bred animals. The nose is not dark or cloudy. The head is neat, with a clean-cut throat, the eyes full, quick and lively; a tuft or crest of hair should hang over the forehead; the ear is not too large, but sprightly. In all other particulars, the commonly accepted points of a superior animal are taken as applying to the Red Polled cattle. The average weight of the cows is 1,200 pounds, sometimes reaching 1,600 pounds or more; the bulls weigh 1,600 pounds, although a weight of over 3,000 pounds has been attained at 4 years and 7 months. Rollick 558, weighed 2,226 pounds at 2 years 8 months old, and dressed 1,400 pounds, while steers weighing from 1,400 to 1,800 pounds when less than 3 years old are on record.

The Red Polls breed at 2 years. They thrive on comparatively scant pasture, doing much better on average rations than many of the other breeds. The cows give a uniform quantity of milk from calving until calving again. The milk averages 13 per cent. of solids, including over 4 per cent. of fat. Milk records of from 8,000 to 9,500 pounds, in less than 1 year or between calving times, are not infrequent in the English Red Polled register, and an average of 12,250 pounds of milk in a full year on good pasture is claimed by the same authority. These facts and all the experience with the breed in this country demonstrate that the Red Polls possess dairy qualities of merit, aside from their usefulness as a beef breed. They also lay on flesh rapidly and economically, while responding rapidly in beef and milk for increased richness in their diet. Red Polled beef also sells at top prices in the English markets, and there is as little waste to the carcass as with that of any other breed of cattle.—J. C. Murray, Iowa, in *American Agriculturist*.

Influence of Location on Wool.

From a paper on this subject by a French writer we condense the following: We may lay it down as a principle that wherever the land is good there the wool is equally so. If of medium quality the wool loses in quality and value. If sandy and poor it becomes poor, short in the lock, harsh and brittle. Merinos perfectly similar and well formed, if transported to a country different from that of their origin, in spite of care and of abundant food, but whose principles have been changed by the soil, will at the end of a few years have wool which has become like that of the Merinos of the country; for this reason, equally recognized by science and practice, that the organism necessarily adapts itself to the conditions under which individuals live. Thus the type can be maintained only by constant renewal of the stock, which, regarded from a rural-economy point of view, is generally a bad proceeding; for experience teaches that to be profitable agricultural industry should always seek to produce animals in relation to the locality where it operates.

The wools of Spain are generally very coarse; they make a tissue hardly usable, very thick, very strong, but lacking the elasticity, the softness, the silkiness so desired nowadays, and which, above all, are supplied by the wools of Germany and Australia. Formerly pre-eminent they are not so fine as formerly, and they are hardly employed unless mixed. This difference in fineness is owing to the Spaniards

In the Dairy.

FEEDING FOR MILK AND BUTTER.

A correspondent last fall, writing from Denver, Colorado, addressed the following question to Prof. Henry, of the Wisconsin Experiment Station:

We are feeding alfalfa hay, bran, corn meal, and a little oil meal. Kindly give me your opinion of the best and cheapest ration for producing both milk and butter. We have large quantities of very fine oat straw which we can sell at \$8 per ton, while alfalfa brings \$9 and \$10. Bran costs \$13 per ton, corn 95 cents per hundred, we grinding it ourselves, while oil meal costs \$1.65 per hundred. Please tell us how we can get the most milk and butter and the cheapest at these prices; also would you advise cutting, mixing, and wetting grain and fodder together? We are now cutting alfalfa and feeding it dry.

To which the following answer was published in *Breeder's Gazette*:

Unfortunately the analyses of Western-grown alfalfa are rare, so that I am obliged to take the figures given in the German tables, which may not be wholly applicable to the Colorado product, yet I doubt if there be much difference. Placing all the substances named in a comparative table we find 100 pounds of each to cost and contain of digestible feeding nutrients the following:

Cost per 100 lbs.	Digestible protein.	Digestible Carbo-hydrates.	Digestible fat.
Alfalfa.....\$.60	9.4 lbs.	23.3 lbs.	1.0 lbs.
Wheat bran .65	12.6 lbs.	44.1 lbs.	2.9 lbs.
Corn...... .95	8.4 lbs.	64.9 lbs.	4.7 lbs.
Oil meal.... 1.05	26.5 lbs.	29.8 lbs.	7.5 lbs.
Oat straw.... .40	1.6 lbs.	42.8 lbs.	0.7 lbs.

One will not have to study the table but a few minutes to observe that the alfalfa is relatively very rich in protein and of only medium quality in carbo-hydrates and fat, and that, on the whole, it is the cheapest food article in the list. Coupling this with the fact that the corn and oat straw, which are relatively rich in carbo-hydrates, are excessive in price, we have no easy problem to solve. It will be seen that bran is about as cheap as alfalfa, but that like the alfalfa the proportion of protein to carbo-hydrates is excessive. Let us now determine the ratio of protein to carbo-hydrates in these articles. The Germans hold that a pound of fat is worth 2.2 pounds of carbo-hydrates; so that, reducing the one pound of fat in the alfalfa to its equivalent in carbo-hydrates and adding it to the amount of these in the alfalfa, we have 30.5 pounds. The ratio of 9.4 to 30.5 is 3.2; that is, for every pound of digestible protein in the alfalfa hay there are 3.2 pounds of digestible carbo-hydrates. The German standard for feeding cows puts the proper ratio at 1 to 5.4. Here is a phenomenal case in feeding, for it is rare that one finds the commonest food on the farm, which is also low in price, to contain more protein in proportion to the other nutrients than is required by feeding standards. It is exactly the reverse of what occurs in the corn-growing districts and is significant of peculiarities in Colorado agriculture.

In the corn belt the farmer needs constantly to be searching for the high-priced protein foods, while our Colorado friends seem to find no difficulty with protein, but are evidently in trouble to obtain carbo-hydrates low enough in price to mix with their protein foods. Having in the alfalfa 1 pound of protein to 3.2 pounds of carbo-hydrates, and having to dilute this, if I may so speak, until there is only one of protein to 5.4 of carbo-hydrates, we must add to the alfalfa some food poor in protein and containing an abundance of carbo-hydrates. The list shows that corn is the proper article, for, having reduced the oil in the corn to its carbo-hydrate equivalent, we have in the corn 8.4 pounds of protein to 75.2 pounds of carbo-hydrates. Let us then take 20 pounds of alfalfa hay, 6 pounds of corn meal, and 5 pounds of oat straw for the

ration. We would then have the following:

	Protein.	Carbo-hydrates, including fat.
20 lbs. alfalfa hay.....	1.88 lbs.	7.10 lbs.
6 lbs. corn meal.....	.50 lbs.	4.51 lbs.
5 lbs. oat straw.....	.08 lbs.	2.15 lbs.
	2.46 lbs.	13.76 lbs.
German standard.....	2.50 lbs.	13.38 lbs.

It will be seen that the results accord very closely with those required by the German feeding standard both in amount and in nutritive ratio. Such is a ration dictated by the desire to follow the German standard; it will doubtless prove fairly satisfactory, but should not be followed too rigidly. Though corn meal is relatively high priced its good effects will be observed in the fine quality of the milk and cream. Since variety in feed is so essential to success it will be well to substitute at times bran, in part or wholly, for the oat straw, which is not cheap at the price quoted. Some straw might be fed as a relish, for when the other articles are supplied continuously the cows will eat some good bright straw readily. With oil meal at the price named I should not feed any great quantity, supplying it only once or twice a week for the sake of variety and its excellent effect upon the bowels. In such cases old-process oil meal should be used, since we desire to get the effect of the large amount of oil it contains. A good dairy cow is manufacturing such a large amount of first-class human food daily that it is neither wise nor profitable to restrict her in amount or variety of food supplied. A good feeder will use all the articles in this list freely, making alfalfa of course the basis of the ration, and watching the appetite and milk flow of the herd closely for further guidance. It is quite possible that our correspondent cannot get his cows to eat so much feed per day as I have named, for alfalfa hay in Colorado probably does not contain so much water as does hay at the East, so that the figures may be cut down a couple of pounds for this reason.

The conditions of this problem are very unusual but interesting, and I wish our correspondent would write the results of his study of the feeding question to the *Gazette*, stating just what experience has taught him in the matter. If he is a close observer and has occasionally weighed the feed, and keeps a record of the milk and butter produced, I would trust his judgment in the matter sooner than that of any person not on the grounds who attempted to reason out the best course to pursue from such data as is here presented. Feeding is entirely too much of an art for one not on the grounds to dictate very satisfactorily the best course to pursue. It certainly seems practical, however, in this case, to sell a part of the straw and buy bran therewith, especially since the manure from the bran will be worth three or four times as much as from the same weight of straw.

As to wetting and mixing grain and alfalfa together, again I am in doubt as to the better way. Probably a little more milk will result from wetting the feed, but I doubt if any more of the valuable constituents will be noted, not enough gain probably to pay for the extra cost of preparation.

Hand-Made Cheese.

Any quantity of milk, from 100 pounds upwards, may be used. The night's milk may be set in a cool place and stirred frequently up to the last opportunity. In the morning this milk is skimmed and put in tin pails in a tub of hot water, to get warmed up to 100 deg. The morning's milk is brought in fresh and warm, and is at once mixed with the warm milk, which is reduced to 90 deg. by this mixture. The mixed milk is put into a clean wash-tub and the rennet is added. The rennet is made by steeping the dried stomach of

a calf in warm water and adding salt. The exact quantity required for 100 pounds of milk is sixty grains, or one-eighth of an ounce of the dry stomach, in two and one-half ounces of water at 70 deg. for twenty-four hours for milk at 90 deg. About one drachm, or a table-spoonful, of salt is added for this quantity. When the rennet is added the milk is well stirred to thoroughly mix the rennet, and the tub is covered with a cloth to retain the heat. This quantity of rennet is enough to make the curd in an hour. More rennet will make a hard, dry cheese, and so will a higher temperature, either of these being equivalent in effect to the other. A low temperature and a small quantity of rennet are also equivalent to each other in producing a soft, mellow cheese which cures in the best manner and develops a meaty, rich flavor. In one hour the curd is set. It is now cut with a long-bladed knife in straight, perpendicular slices, one inch thick, and then crosswise one inch apart. This causes the whey to separate and the curd to shrink. Just here is the point where the various methods of making cheese separate. By the cheddar system the whey is dipped off and heated to 150 to 180 deg., and is poured back on the curd, which is thus heated up to 100 deg., and is kept so heated until a piece taken between the teeth "squeaks" when it is chewed, or when touched to a hot iron the curd draws out in strings several inches in length. The other system dispenses with the heating, and the curd is left with the whey until it is firm enough to be lifted up in the hand without falling apart or losing its shape, when it is ready for breaking up, salting and putting in the press. When the curd is ready the whey is all drained off by tilting the tub and breaking up the curd with the hand. In the cheddar system the curd is drained and broken up while still warm, and is left in a heat to become slightly acid. As soon as the acid is apparent to the taste the curd is again broken up by the hands quite fine, salted in the proportion of 2 percent. fine dairy salt, and put into the hoop and the press. In the other method the curd is not left to sour, but is broken up, salted and put into the hoop. The hoop is made of thin ash or spruce board, and for 100 pounds of milk or ten pounds of cheese may be eight inches in diameter and ten inches deep. The curd is pressed in the hoop by the hands, a little at a time, to get it firm and solid, and a loose head is put in with a block upon it. The cheese is then put under the press. The press is a frame or bench having an upright post at the end in which is pivoted a long lever. The cheese is put under this lever near the pivoted end, and a weight hung upon the other end, so as to get a moderate pressure upon the cheese. A folded cloth is usually put under the cheese to absorb the whey which is pressed slowly out of the cheese. For a ten-pound cheese and a ten-foot lever a ten-pound weight would be enough for the end of the lever. As soon as the cheese is firm enough to be handled it is taken from the press, rubbed with butter, and placed in a cool, dry cellar on a shelf to cure. It is turned on the other end daily for a month, and if mould gathers on it this is scraped and wiped off, and the cheese is greased again. With six cows giving seven quarts each a ten-pound cheese may be made daily. This size is very convenient, and with more cows and milk it is still a desirable size, and several such cheeses can be made and pressed at one time by ranging the hoops in a line, resting a board upon the blocks and pressing with the lever upon a block laid upon the board. The weight upon the lever should be increased in proportion to the number of cheeses. Cheese of this size and of good quality and purity could be sold with the greatest ease. They are of such a size as to be consumed while fresh and in the best condition, and what is very important, any person can easily carry one from a store, so that there is no objection to purchasing them on account of difficulty in getting one home. If I were in the business of making cheese for family use I would have thin, light wooden or straw-board boxes in which cheese would fit nicely, and it should have a neat handle and be labeled with my name and the name of the farm, and branded "Pure, whole milk cheese for family use." My butter in similar packages has sold for at least 20 cents a pound more than it would bring in ordinary tubs.—*Mark Lane Express.*

stowing on their flocks the same as formerly, and to negligence in selection of breeders. As to their herbage on which the Spanish breed, and to their way of living. Generally exposed to the air, to light moisture, to the sun, and the and accustomed to lie on the d, they lead a very rustic life. conditions produce these wools so valuable for their coarseness. We at the antiquity of the blood also exert its share of influence. Russia, on the contrary, where the during the great part of the year is the, the sheep live mostly in folds. thus lose the vigor brought about more temperate climate, and by different management which it On the other hand, the shear- before the hot weather, which, over is of short duration, so that wool does not come under its in- . Thus the Merino wools of have much softness, with the of yielding a white open lock, but defect is largely of grain. man wools, especially the beauti- pools of the Electorate of Saxony, are now the first in the world in et to beauty, fineness and silkiness, their qualities to very careful selec- Milk management suited to the end is, indeed, good pasturages, and a tem- ing the climate, rather cold than hot. Eng- wools of Australia, in a locality and different from Russia, are equally in age and soft. One would think that d by flocks living in the open air should, and those of Spain, produce a coarse in this. This seeming contradiction is Pollished by the difference of food. asiding in steppes where the pastures, breed, or less abundant, more or less and five, are often burned up by rapidly on, the flocks, which do not receive hness gthening food in folds, are not in a also al state of health, and their fleeces glish the effect of this. There are excep- ste to, especially in those from Port other, but it is probable that this va, in- ence in quality is owing to better Cloths made from the wools of alia look well and handle well, but want strength and do not last. by a Merino does not thrive in foggy ollow- any countries like England. It is niple said that this is owing to its con- ion being more delicate than that her breeds. This is a grave error, icted by many facts, each more onstrative than the other. Accord- erinos to us, two principal causes explain ed, if difficulty of rearing the Merino t from a rainy climate—namely, the are and eness of the fleece, and the many nesses with which every lock of will at wool bristles. This closeness and which roughness retain water longer, in greater quantity, than other nos of . If the rains be frequent and the e foggy, the constant moistness e wool, which is intended for the al's protection, hurts it, on the ary; the action of the skin is no can be in all its strength. This essen- nction of the organism being ed, the animal is in a state of ant suffering, and consequently ead to numerous diseases, particu- the rot, or aqueous cachexy, the gress of which is the more active as food in these same climates has a ular tendency to produce lymph.— enberger's Antidote for Malaria, de- the cause of disease, which Quinine ys, and her remedies do not pretend to do. tually neutralizes the poison in the and thus prevents the chill. It con- no arsenic or poisonous ingredient of and, and may safely be given to the . Sold by Druggists. proper feeding is the cause of nine out cases of sickness.

Correspondence.

Mr. Faidley's Farm Experience.

EDITOR KANSAS FARMER:—I see an inquiry in No. 49 on page 6, by "Observer," of Reno county, concerning the best method of farming. I will give my experience, and let "Observer" be judge whether it is practical or not. I came to Burr Oak in the fall of 1873. I saw the grasshoppers thick enough in the air to darken the sun like a light cloud. I have stood the drouth and flood, hot winds and cold winds; have seen the time of plenty and the time of want; have had a total failure, and have raised big crops; bought corn at \$1 per bushel and sold corn at \$1 per bushel, and sold but very little for less than 25 cents per bushel; have raised upwards of sixty bushels of corn to the acre, the longest ear that I noticed measured fourteen inches in length, the circumference I forget. I have sold fat hogs that weighed a pound to each day of their age, and were fed on corn and water; have raised fish that grew an inch every week in warm weather; have made money and have lost money; have had good luck when I took care of things and have had bad luck when I neglected things. Now to "Observer's" questions:

First.—My planted corn stood the drouth best, and the listed corn that was planted north and south was better than the east and west planting.

Second.—I harrowed two times with the lister harrow and then cultivated two times. As to the time of planting that depends on what latitude the farm is. Suckers never bothered me much. I drop a kernel sixteen to eighteen inches apart, the rows a little over three feet apart. I plant the big yellow as early as I can get it.

Third.—I sow oats in cornstalks and cultivate them in.

Fourth.—The best results I had in feeding hogs with the least expense was in feeding snapped corn; the corn keeps better in the husks.

The time of planting in town 2, range 9, Jewell county: Any time after the 1st of March that the ground and weather are favorable I sow wheat, providing I want to raise spring wheat; any time after the 15th of March that the ground and weather are favorable I sow oats; plant potatoes the last of March or the first of April; plant corn the last of April or first of May, and I sow millet as soon as the corn is in. Let this suffice for the present.

H. E. FAIDLEY.

Burr Oak, Jewell Co., Kas.

Mr. Adamson on Sugar-Making.

EDITOR KANSAS FARMER:—In answer to the requests made by KANSAS FARMER and Prof. E. B. Cowgill. Owing to my cane being Early Amber and me being twenty days late, and in that time weather very warm and wet, the cane all took the second growth; it then was all over as far as getting what would answer the request made by Prof. E. B. Cowgill. I made about one quart when the cane was at the best, and the sirup went to sugar inside of twenty-four hours and settled at the bottom of the glass jar, in fine-looking coarse grains, white and rocky. I can say with what I have made every time it has been clear white. What effect does roasting have on the cane? First, the gummy paste all comes out and roasts off; second, the blades and insects all disappear; third, the sorghum flavor is removed if roasted yellow; fourth, it crushes easy and dry, and stalks when cold become stiff and ready to burn; fifth, makes the juice like maple tree water, purifies it; by this the extra cost of high-priced machinery is dispensed with. Why don't they want the machinery for maple sugar? Because the juice is pure. I wish to ask Prof. Cowgill to explain the effect the sorghum joints have on the juice, as this is the secret of the cane. If you will think the effect of roasting peanuts, coffee, sweet potatoes and cane the same, it does not take from but adds to flavor and quality.

To answer the request for amount of cane per day and cost per ton I can't give correctly, but say the roaster is made large enough to roast for the largest mills made in the market. All I want is the number of the crusher or the capacity of the cutter; it will work for a cutter the same as for a mill. I

don't need to handle the cane after it is put on the roaster platform, as it passes through the roaster and comes out roasted the same as wheat through a threshing machine; this work is endless after begun. I will answer more correctly later. I wish to state this roasting process will do to put your money in, as it will come to the front as soon as the proper tests are made. My loss is what has kept this in the shade, but I have the offer now from a firm that will help me to bring this before the people. A. J. ADAMSON. Sabetha, Kas., Dec. 26.

How About County Assessors?

EDITOR KANSAS FARMER:—I see by the Emporia News that the County Clerks, at their last annual session at Topeka, passed resolutions recommending to the Legislature that the present system of township assessment be done away with, and that a county assessor be appointed who shall appoint deputies in such township, and also appoint a committee to prevent the matter to the next Legislature and urge the passage of the bill, virtually depriving the people of having anything to say as to who shall be the assessor. It looks as though the county seats intend to take the power in their own hands. That would add about 100 county officers to the State of Kansas to be supported by the tax-payers who are already overburdened with taxes. The people are generally satisfied with the present system, and think they should have something to say in the matter. Would like to have the views of the KANSAS FARMER and the farmers of Kansas generally. B. Americus, Lyon Co., Kas.

Is Interest Too High?

EDITOR KANSAS FARMER:—In recent issues of the FARMER there has been much said about a reduction of interest rates. It would be well to remember in urging the Legislature to take action on this matter, that if the legal rate is placed below what capital can secure for its use in other States and channels it will be difficult, and in many cases impossible, for farmers to secure needed funds. Eastern investors allow their money to come west only because western investments pay the highest rates. If a law is passed which will make it impossible for them to receive what they can get in other States they will look elsewhere. Stocks, bonds and miscellaneous investments are numerous. Half the farmers of this State would be tenants, not owners, if it were not possible to borrow.

Without doubt, borrowers have in many cases, and especially in the western part of Kansas, been compelled to pay exorbitant rates. To have been refused the funds, however, might have been as great a hardship. Let us not go from one extreme to the other.—Yours truly, F. O. POPENOE. Topeka, Kas.

About Kaffir Corn.

EDITOR KANSAS FARMER:—In your issue of November 29 were two articles on Kaffir corn, one from J. W. English, the other by Secretary Graham, taken from the *Industrialist*. I have heard quite a number of your subscribers express their surprise at what Mr. Graham says about Kaffir corn. The experience of growers around here is about like that of Mr. English. I do not know whether Secretary Graham is a Professor in the college or not; if he is, it would be of interest to the farmers to know how he arrived at his conclusions; whether he analyzed the crop, or whether he let some cattle or horses analyze it. In my opinion if any Western farmer lets that article, or any other of the same kind, keep him from trying Kaffir corn, he is going against his own interest. My experience with Brazilian flour corn is about the same as that of Secretary Graham's. It will not stand the hot winds. I planted three quarts of seed and only gathered one quart that will do to plant. Cattle liked the fodder while it was green.

We are still having dry weather here. It has turned cold now and we have no snow to protect our wheat. The earth is very dry indeed and considerable of the wheat dying for want of moisture. It is amusing to some of your Barton county subscribers to read Prof. Blake's self-praise about predicting the weather; the testimonials he has published remind us of the almanacs we

pick up in the drug stores. I do not see any of them dated in Barton county, but I suppose if we had happened to have a wet fall, some Barton county farmer would have thought he knew as much as he claims to. Some subscribers express their surprise that the KANSAS FARMER should indorse such a humbug, and some are talking of giving it up on that account. When Prof. Blake can tell us what weather we will have in Barton county and hit it ninety-six times out of one hundred, we will then believe he knows something, unless he says we are going to have one hundred dry days. Because then I expect he would hit it. R. B. BRIGGS.

If the reader will look up an editorial article in this issue concerning Prof. Blake's work, he will learn just how far the KANSAS FARMER indorses him.—EDITOR.

Gossip About Stock.

F. M. Lall, Marshall, Mo., sold a 10-months-old Poland-China boar to J. R. Harcourt, of New Augusta, Ind., for \$300. The above is a right stiff price to pay for one hog, but the animal was an exceptionally fine one.

Every reader who expects to purchase Clydesdale or English Shire horses should have the new catalogue of Galbraith Bros., Janesville, Wis., which contains the pedigrees of 196 imported stallions. Write for it and say the KANSAS FARMER advised it.

A gentleman by the name of Lockwood, residing south of McCune, Crawford county, in this State, has lost three head of horses from glanders and has another afflicted with the same trouble. Farmers cannot guard any too carefully against this dread disease.

The Junction City *Tribune* says: Twelve head of cattle have lately died near Milford from the effects of running in cornstalks. W. S. Davis opened his cattle and found that the small passage leading from the first to the second stomach was rotten and the blood in the veins all clotted.

James Mains, Oskaloosa, Kas., breeder of pure-bred Poland-Chinas, writes: "I have sold out all my spring boars, but have a few good sows left yet; also have a few of last June pigs. I am preparing for a big trade next spring, having as fine a herd of sows and boars as I ever owned, or might say, ever saw."

A strong company has been chartered for the purpose of establishing stock yards at Lawrence, Kas. The directors for the first year are as follows: Charles Lothholz, Eudora; J. M. McCreath, C. A. Pease, Justus Howell and J. M. Halght, Lawrence; W. H. H. Whitney, Reno, and J. M. Shepard, Wakarusa.

It affords the writer pleasure to call the attention of all shippers of live stock to the annual card of Larimer, Smith & Bridgeford, the enterprising live stock commission men at Kansas City. They invite the patronage of our readers from everywhere. Send them your consignments and be happy during the new year.

Z. D. Smith, Greenleaf, Kas., in renewing his Breeder's Card for 1889, writes: "Have disposed of all my spring pigs of both sexes. The demand has been unusually heavy this fall. I am buying some new stock of the finest strains to add to my herd, and shall breed more stock than usual for next season's trade. Stock all healthy in this section. I have a fine lot of fall pigs for the winter and spring trade. I am well satisfied with my advertisement in the FARMER."

The Silver Spring herd of Short-horn cattle is represented this week by a neat advertisement. Charles Roswurm, the owner, Beman, Morris county, is a careful breeder. His herd, which now numbers 100 head of choice thoroughbred Short-horns of the best strains, are uniformly good individuals, being bred for qualities of substance, flesh and early maturity. The Cruickshank bull, Vice Royal, out of imported Aconite, heads this herd. If you need Short-horns, give him a call.

Marion Brown, proprietor of the Prairie View herd of Poland-Chinas, Nortonville, Kas., writes: "As the year's round-up for 1888 is at hand, I can say the FARMER has sold several pigs for me; in fact, I am sold out, except a bunch of early fall pigs. Have some as good September pigs as I ever bred, part of them sired by a yearling Give or Take boar, balance by Black Tom, 2001 Standard Record, bred by J. B. Duffield,

Oxford, Ohio, from dams of Corwen Black Bess strains. Hogs healthy and fine shape; run them on good clover summer season, and clover hay is a part of their ration. The greatest inquiry for sows bred for spring farrow."

The Percheron and Arabian Imp Horse company, an extensive concern, voted to breeding the best families of Percheron and Arabian horses in America, have decided to offer at public sale at Fremont, Neb.—their American sale quarters—a select draft of horses, including the best types of the Percheron, French Coach, Arabian and Thoroughbred stallions and mares, and a bunch of Messenger bred driving horses, thoroughbred and great roadsters, raised on a ranch covering ten miles square in the Hills country, Dakota, where they have some 800 head of mares and colts. They briefly call attention to this sale in this issue and also invite attention to their advertisement. For further information send to De Fontaine, Manager, Fremont, Neb.

Darwin's Theory.

Darwin's theory of the "survival of the fittest" is simply that the weakly die, the robust and hardy thrive and live. True this is of seed growth, and how necessary to sow only that which is suited to nature to live and develop.

D. M. Ferry & Co., the great seed grower and seed dealers of Detroit, Mich., send only the best and purest, raising their seeds by the most improved methods, with the greatest care, bringing to them the invaluable aid of more than 50 years' experience. Their Seed Annual for 1889 is a real help to the gardener, and pure and true seeds. Send your names and firm's address at Detroit, Mich., and we will forward you a copy.

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 in district schools who want the advantage of the college training. The required preparation for admission will be the same as at the beginning of the year in September. Students over 18 years of age may be received on 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 the best for all ordinary purposes of the Farmer's sons and daughters have special consideration of their wants in the college directly related to agriculture; home economy and mechanic arts are also provided for. An able corps of teachers, excellent equipments make the teaching every way superior. Tuition is free. Further information address PRES. GEO. T. FAIRCHILD, Manhattan, Kan.

Burpee's Farm Annual for 1889

advertised in another column, is considerably enlarged and improved over any previous issue of this popular seed catalogue. It contains 168 pages, hundreds of illustrations engraved from nature, and beautiful colored plates of new vegetables and flowers, the whole making a comprehensive guide to the garden and farm. It is in a handsome lithographed cover. Of valuable information concerning different varieties of seeds for the farm, vegetable and flower garden, bulbs and plants, special department, not found in other catalogues, are the illustrated descriptive thoroughbred live stock, Scotch collie and fancy poultry. A special feature of large and complete catalogue are the new novelties in vegetable, farm and garden seeds, most of which have been raised by W. Atlee Burpee & Co., on their Ford Farm, and have been carefully tested, prove their value before being introduced. The great care given to the testing seeds by this house has resulted in the largest retail mail seed business in the country; they fill over 3,000 mail orders daily in the season, and their seeds have enviable reputation throughout the world. Every progressive farmer and gardener should certainly have Burpee's Farm Annual for 1889.

The Veterinarian.

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

Ringworm.—J. W. S.—We judge your animals are affected with the common form of the skin disease "ringworm." It is a disease not confined to those animals ill with it, but is seen among all classes of animals and those that are well groomed and cared for. It is more common in the spring, and occurs as round bald spots on the face, about eyes, nose, on the back and hind quarters. The treatment of this trouble is effected by the application of the bald spots, after first removing the crusts and scurf by washing with soap and water, of an ointment of iodine, viz.: Nebsals of iodine 2 drachms, potassium iodide 1 drachm, lard 4 ounce; make ointment and apply to the bald spots.

Chronic Nasal Catarrh.—I have a young colt that had the distemper last year. It had it very bad and it was a long time getting well, but seems to be doing well now. I occasionally notice that the animal is drinking that chunks of matter come from his nose. It does smell bad. Have done nothing for it except to give a few condition powders, but to no good. J. Mc. M., Leocompton. We would advise you to steam the colt's head occasionally with a hot bran mash in a suitable nose-bag. Give the following: Sulphate of copper, 1 ounce; gentian, powdered, 2 ounces; and sugar, 2 ounces; mix; make sixteen powders to give. Continue this treatment for some time if necessary. Feed animal as low as possible.

Cough—Bleeding.—J. D. P., Gridley. A cough is liable to be evoked by the irritation of the mucous membrane in the part of the air passage, but chiefly the trachea and larynx. We would advise you to treat the throat with the following: Powder of cantharides, 1 drachm; lard, 1 ounce; of stramonium, 4 ounces; wash the blister off in the evening four hours, and then keep the parts required greased. Give one of the following as at the throat in animal's feed: Gum camphor, 1 drachm; tartar emetic, 6 drachms; powder of calomel, 6 drachms; calomel, 6 drachms; and of make seven powders. After using or more all rest a week, and if necessary repeat the course again. The bleeding from the throat was evidently due to the rupture of the small nasal blood vessel during severe sneezing. When arising spontaneously or from injury it can be arrested by the application of cold astringents and proper use of animal's head.

Worms.—E. G. D.—All of our animals at times some variety of intestinal trouble. With but few exceptions each animal has its own particular parasite. The worms are of less consequence than the parasites. These parasites may live and breed in the alimentary canal for a long time, producing no irritation and inconvenience. There are a great many species of the genus *strongylus*—round worms. These worms when few in number occasion little inconvenience, but if numerous and especially if they invest the stomach and intestines may induce indigestion, general weakness and emaciation. Cattle suffer from intestinal parasites than other animals, yet young animals, as calves and yearlings, are quite frequently infested with round worms that cause trouble. The treatment is various. When associated with emaciation and debility the salts of Epsom or of service; they act by not only removing the worms, but by improving the health of animal render the host more fit for the abode of the worms. Would advise any heroic treatment, but the animal should be nourishing food, access to salt, and bitters as quassia, gentian, etc., all

Abortion.—We have two forms, sporadic and contagious abortion. Sporadic abortion has many causes either external or internal. External causes: Any accident to the animal, such as severe kicks, slips, falls, rubbing, casting, or over rough ground, the eating of food, as mouldy, musty, smutty, or frozen food, etc. The feeding of

animals upon ergotized grains or hay, smutty corn and oats is quite a fertile source of abortion in some localities. Overripe millet in sufficient quantities will induce it. Some of the internal causes would be: Excessively fat or poor mother, diseased condition of mother or fetus. Contagious abortion is due to the presence of a germ which spreads the disease; it entails great losses. Prevention is the essential point. Ascertain if possible the probable cause. If food is of a smutty, mouldy or musty character, and if it must be consumed, the feeding of roots regularly may obviate the trouble. When an animal has aborted in the stable, great cleanliness should be observed. When suspicious of approaching abortion isolate animal. An animal aborting from whatever cause should be allowed to run over three or four heats before serving.

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:

As Lecturer of the State Grange I will enter the field on January 1, 1889, commencing work in Osage county, thence to Franklin county, and south to the southern boundary of the State. My policy will be to remain in each county until the territory is fully occupied and the Granges put in working order so far as I am able to do so. And I shall endeavor to practice the motto, "Whatever you attempt to do strive to do it well." I hope to receive the earnest and hearty co-operation of the farmers and membership in each county and will try and give them due notice of my coming. Parties wishing to organize new Granges or desiring my services in connection with those already organized, will address

JOHN G. OTIS,
Lecturer K. S. G. P. of H.,
Box 164, Topeka, Kansas.
Topeka, Dec. 26, 1888.

Beauty Without Paint.

"What makes my skin so dark and muddy? My cheeks were once so smooth and ruddy! I use the best cosmetics made." Is what a lovely maiden said.

"That's not the cure, my charming Miss." The doctor said—"remember this: If your skin would keep from taint, Discard the powder and the paint."

"The proper thing for all such ills is this," remarked the man of pills: "Enrich the blood and make it pure—In this you'll find the only cure."

Dr. Pierce's Golden Medical Discovery will do this without fail. It has no equal. All druggists.

Regular and exact hours for feeding are necessary to have the best results in fattening stock on the farm.

See that every portion of the farm is producing something, and that every product is used in the most economical manner.

Kentucky blue grass seed is sure to grow if stripped when ripe and properly cared for. R. C. King, Carlisle, Kentucky, maker of King's Patent Seed-Strippers, can supply you with fresh, good seed. Write for price.

The old question—where shall I get my seed this year—presents itself again to thousands of our readers at this season of the year. If you will turn to our advertising columns you will find the announcement of John A. Salzer, La Crosse, Wis., who makes a specialty of Northern-grown seeds. These are early, productive and full of life, and will increase every year.

Sorghum.

Now that sorghum is once more attracting the attention of farmers throughout the country, and has this time apparently come to stay, it is well to know that the Sorghum Hand Book, a valuable treatise on the cultivation and manufacture of sorghum, may be had free of charge on application to the Blymyer Iron Works Co., Cincinnati, O.

Inquiries Answered.

Mr. Fayette A. Smith, Cuba, Kas., wants to know where he can procure some White Minorca chickens.

If J. P. J., St. Francis, Kas., will write to President Geo. T. Fairchild, Manhattan, he will obtain the information he desires.

Mr. D. N. Hill, Lyons, Rice county, P. O. box 351, wants to correspond with breeders of shepherd dogs. He wants a full blood. Who can help him out?

Mrs. O. R. B. is informed that a letter addressed to S. C. Robb, Superintendent Forestry Station, according to notice in KANSAS FARMER, will receive proper attention if it reaches its destination. Try again.

MORTGAGES.—Please give in your next number the law concerning mortgages in Kansas; how closed up.

Suit is brought on the note or notes same as if there was no mortgage, and judgment and order of sale are obtained at the same time. A stay of six months is allowed if it is not waived. If waived, order of sale issues within twenty days after judgment, or after adjournment of term when the term is short, and there is no redemption.

JOHNSON GRASS.—Would you be kind enough to give me some information about Johnson grass? Is it an annual or perennial plant? When should the seed be sowed? How much seed does it require on an acre?

Johnson grass is a perennial, a Southern grass, spreads rapidly, makes good hay, can be cut two or three times in a season and yields heavily; but it is not suited to our climate. It grows best where summers are long and winters mild. It has been tried in Kansas, but we have not heard from a field of it since the winter of '86-7, the cold weather was too much for it. Sow one and one-half bushels seed to an acre; soak seed in warm water till they swell, before sowing; sow in spring when ground is warm and moist; run over ground with light plank drag or brush, and then roll.

SUGAR-MAKING.—We would like your opinion as to whether sugar can be successfully made from sorghum cane and has it been clearly demonstrated that the business can be made a financial success or is there still some question about it? Is the most successful process for making this sugar free or is it patented? About what would be the cost of a plant of sufficient size to use 100 tons of cane per twenty-four hour day? Wish you would kindly inform us on these different points and give us the address of manufacturers of machinery used in this business.

There is no question about the making of sugar from sorghum cane. It has been repeatedly demonstrated, and two factories are now permanently established, one at Fort Scott and one at Topeka. Two others made sugar last year, but did not make any money, because of mistakes which will be corrected before work is begun next fall. One of these is at Douglass, in Butler county, the other at Conway Springs, Sumner county. The Fort Scott works were run profitably last season. Sugar can be made as certainly from sorghum as flour from wheat. There is no need to bother about the patent process; sugar is made quite as well without infringing on it in any way; and besides, the government has brought suit to set the patent aside. Prof. Cowgill's report will make this point clear. As machinery is now constructed, \$60,000 would be sufficient, if judiciously expended, to put in a plant of a capacity of 100 tons daily. The Topeka works were begun on an estimate of \$150,000, with a capacity of 250 tons daily. Prof. E. B. Cowgill, Sterling, Kas., State Sugar Inspector, can give information as to machinery and any other matter connected with the subject.

NEW ADVERTISEMENTS.

Allen, S. L. & Co.	Planet, Jr.
Burpee, W. Atlee	Farm Annual.
Blymyer Iron Works	Sorghum.
Briggs, B. B.	Kaffir corn.
Crummer, E. M.	Hog Sanitarium.
Carpenter & Gage	Big Apples.
Dawes, A. C.	Burlington Route.
Ferry, D. M. & Co.	Seeds.
Freeman, J. M.	Bates bull.
Giesse & Bro., A. C.	Mt. Hope Nurseries.
Gilkinson, E.	Dickens.
Gunn, W. W.	For sale.
Housekeeper, The	\$200 Given Away.
Higgins, Thos. J.	Breeder's card.
Jennings, O. B.	Sugar—new process.
Kern, H. H.	Wanted.
King, R. C.	Kentucky Blue Grass.
Larimer, Smith &	Live Stock Commission.
Bridgeford	Merchants.
McCormick, J. M.	Jacks for sale.
Masters, C. E.	Excelsior Poultry Yards.
Miller, J. W. & Co.	Northern Grown Trees.
Percheron & Arabian	Sale of horses.
Horse Import'g Co.	Douglas Co. Nurseries.
Plaskett, Wm. & Sons	Silver Spring Herd.
Roswurm, Chas.	Kansas City Stock Yards.
Richardson, E. B.	Plymouth Rocks.
Robinson, Thos.	Belt-Clothes Holder.
Skinner	Breeder's card.
Smith, Z. D.	Seeds.
Salzer, J. A.	California.
Sharp, Blakesley &	Clover Seed.
Thomas	Greatest Novelty.
Thompson, O. E.	A Cure for Hard Times.
Vick, Jas.	Ottawa Herd.
Wilson, Sam'l.	Delighting Chute.
Whipple, I. L.	
Webster, E. P. C.	

The President's Message.

The inaugural address of the Great "Rock Island Route," Chicago, Kansas & Nebraska railway, is to announce that two through vestibule trains run each way between Chicago and Denver, Colorado Springs and Pueblo, via Kansas City and St. Joseph, without change of cars, making close connections west-bound with all trains for Salt Lake, Los Angeles, San Francisco, Portland and other Pacific coast points, and at St. Joseph and Kansas City, east-bound, with all trains for Chicago, St. Louis, and points east, north and south. These royal trains, consisting of Pullman sleeping cars, restful and handsomely-appointed reclining chair cars, and magnificently furnished day coaches, were built expressly for this service by the Pullman Palace Car Co., and are unquestionably the finest ever turned out by this famous establishment. The reclining chair cars are models of elegance and comfort, and are free to all holders of first-class tickets, and a courteous attendant with every car will see to the wants of our patrons. Ask your nearest ticket agent for a ticket via the Great "Rock Island Route," or write to JOHN SEBASTIAN, Gen'l Ticket and Pass. Agent, Topeka, Kas.

Patents to Kansas People.

The following list is prepared from the official records by the Kansas City Patent Agency (through Washington office), for the week ending December 15, 1888:

Automatic grain-weigher and register—John K. Bender, Highlands.
Caff holder—Richard J. Newman, Norwich.
Railway frog—Charles G. Lea, Atchison.
Soap—Packard & Struble, Salina.
Station indic. for and advertising cabinet—Alfred J. Kellogg, Clay Center.
Electric alarm and water gauge—John H. Johns, National Military Home.
For week ending December 22:
Road cart—Lewis J. Lyman, Manhattan.
Truss bridge—William M. Parker, Garland.
Hand loom—Charles G. Estes, Hiawatha.
Button machine—Clyde J. Coleman, Gideon.
Stone or marble drill—Reuben A. McHenry, Winfield.
Fly trap—Calvin H. Bennett, Beloit.
For week ending December 29:
Spool holder—Nelson R. Outt, Attica.
Vehicle brake—Jacob Fasnacht, Ludell.
Cultivator—William H. Wiggins, Lapland.
Lock hinge—Thomas Spriggs, Mitchell.
Watch-case pendant—Frank A. C. Bradford, Coffeyville.
Head gear for vehicles—James C. Kelley, Leonardville.

Railroads.

The new Burlington Line between Kansas City and St. Louis, and between St. Joseph and St. Louis, is rapidly growing in favor. Its equipment is unsurpassed; the sleepers are the finest built by the Pullman company; magnificent parlor cars are attached to trains without additional charge.

Passengers leaving Kansas City in the evening by this line have a dining car for supper. This train leaves the river cities at a comfortable hour in the evening, and arrives in St. Louis in time to take a 7 o'clock breakfast.

We should advise parties going to St. Louis or via St. Louis to Eastern or Southern points, to purchase their tickets over the new "Burlington Route."

Exercise is an important item in the growth and development of breeding animals. For the colt it is vitally essential.

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

One of the worst mistakes in growing small fruits is in raising that of a poor quality. The demand for the best is never fully supplied. But very often the market is overstocked with the poorer qualities.

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. Novas, 149 Power's Block, Rochester, N.Y.

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.

Old Letters.

In where the red coals quiver
And glow with a molten light,
Where the heat makes fairy colors,
Changing to red and white,
Lay them gently, tenderly,
Where they crackle and burn away;
They have answered their time and purpose,
In the light of a long past day.

Why should we deal with sorrow
And joys of by-gone years,
Relics our hearts once gladdened,
Or blistered our faces with tears?
Why should we ever reopen
The wounds that have long since healed?
Who drag to the light the troubles
That the waters of Lethe have sealed?

Those pages of love were cherished
In the bright heyday of youth;
They were pure, and sacred, and earnest,
And filled with the sweetness of youth.
Perhaps the fond ties were severed,
Or their mission long since done,
For change like a deep under current
Bears us swiftly and silently on.

Bury the family secrets,
Mementoes of days gone by,
That found their place upon paper,
To leave their traces for aye.
Out through these avenues common
Overcharged hearts found vent,
They were safety-valves for the feelings,
But the passion is long since spent.

Though our fingers are oft reluctant,
And a dull and grievous pain
Is tugging away at our heart-strings
As we look on the lines again,
Though the surges of Time keep breaking
And lapping a far-away shore,
Yet a voice whispers over and over,
"Burn up all the letters of yore."

Let us look upward, not downward,
For groveling brings no balm;
Let us look forward, not backward,
For a dead past holds no charm;
Let us pitch our tents where the tree-tops
Shall catch the first rays of the sun,
And forever keep step with each duty
Till the march of our life is done.

—Good Housekeeping.

Death is the crown of life;
Were death denied, poor man would live in vain.
Death wounds to cure; we fall, we rise, we reign;
Spring from our fetters, fasten to the skies,
Where blooming Eden withers from our sight.
This king of terrors is the prince of peace.

—Young.

Beauteous as vision seen in dreamy sleep
By holy maid on Delphi's haunted steep,
'Mid the dim twilight of the laurel grove;
Too fair to worship, too divine to love!

—Milton.

HOW, AND WHAT TO EAT.

How many parents think of teaching children how to eat, though it is the most important of physical lessons. A child needs to be taught to use its teeth with the same attention given to handling its spoon, which it is shown with care lest its manners fall under criticism.

If diet is right from the beginning, the first teething will be painless, and the second in later childhood will be without the ordeals of tooth pulling, or the disfigurement of empty gums waiting for the new set to take its place. The teeth are in the gums when the child is born, but take their time to push through, according to its vigor and the quality of its food. In the natural order of things, the root of the first teeth are absorbed, and the tooth drops out just as the new one is ready to take its place. With due care the agonies of toothache and dreaded visits to the dentist should be struck from the list of childhood's memories, as wholly unnecessary and unknown. This will be to the relief of parents as well as the boys and girls themselves. Fine teeth are a grace which every child should have if its early care and training are what they ought to be. This the parent must see to, personally, and daily, for it is the most difficult and important thing in the child's whole physical training. It can not be left to nurse-maids, or persons who take care of children in the country or at school, for not one in ten thousand has any idea of how a child should be taught to eat, or will take the pains to teach it. Every parent should regard it as necessary to teach a child how to eat as how to read, and give as careful attention to it. The beautiful little first teeth are for show, not for use, unless biting his rubber ring until the double teeth come, four on a side. Giving solid teeth to a child before he has tools to grind it, is ignorant barbarism, causing more suffering, and cross-

ness, and more downright ugliness of looks than any other mistake of its early training. Besides the often fatal indigestions, fits, and lasting feebleness, produced by such feeding, the teeth are injured in forming, decay early, and are almost sure to grow irregularly for the second set, and certainly to be yellow or black, beyond the power of any powder to whiten them. Fine cracked wheat or granulated oatmeal, with milk or broth, should be a child's first change from wholly milk diet. They are the most satisfying food, during infancy and childhood, furnishing the substance for teeth, bone and muscle, clear eyes and exquisite skin. For a long time, up to the twelfth year probably, the first of a child's meal should be liquid or semi-liquid food, milk, soup, broth, farina, and milk or sirup, as it soonest appeases the sharp edge of hunger and gives the stomach aid to dispose of more solid food. The hunger of children is a sharp reality, and they grow faint with it very soon. Their systems are busy manufactories, making growth of bone and muscle, growing before they are 17 more than they do in all the fifty years of life after, besides their ceaseless activity which knits and settles the new-formed tissue. If the supply of food is not prompt and satisfying, the waste is immediate and injurious, for the vitality of children is quickly spent. It is not only cruel but harmful to force them to go without eating as long as grown people are expected to. The old rule that children should never eat between meals should be amended, to the effect that they should not eat within three and a half or four hours of a full meal. It is very much better for young people till well in their teens to eat five times a day than three, eating lighter meals, which tax the digestion less. It is time the principles of nutrition were better understood, and first of all that people and children differ about food. Some middle-aged folks do well, or think they do, on two meals a day. Others, more nervous, are better eating oftener and less at a time. I knew a lad of 15 who boarded at the Lewis' Boston hotel where two meals a day were the rule. He was very bright, and not at all given to overeating, but he confessed to getting awfully hungry and faint hours before meals, and that it seemed impossible to take enough to last through, he said eloquently, "I eat jars full." O, that famishing hunger of childhood and adolescence which bows the pupil in weariness over his desk, and creates pains unmentionable which are at the root of much of the debility and malaise of early years.

It seems hardly necessary to adjure parents to give their children enough to eat, but the medical societies speak loudly of the want of nutrition, as next to lack of pure air the great evil they have to contend with in general diseases. And the trouble begins with children. The table is cramped in too many middle class families for the sake of assumed gentility and cheap decorative art. I know many a well-kept house where neither child nor hearty grown person could keep strength a year on the ordinary fare. A single egg and a slip of toast for breakfast, or perhaps two griddle cakes, only two, and a cup of cocoa is no sort of living for a growing child. It is no wonder people in general amount to so little, considering how meagerly they feed. "We never have anything at home for dinner but beefsteak and apple pie, the year round," said a young matron at a summer resort. "Bridget doesn't know how to cook anything else, and I let her go on that." Yet she had five young children, and counted up the dozens of embroidery she did in a year as presents to friends. One must think of Master Reginald Bazalgette, who runs away from home on hearing there is to be the same roast mutton and rice pudding for nursery dinner that he has eaten for years. The cottage dinners which look so pretty with etched dollies and flowers and wafers tied with ribbon, would hardly satisfy a school-boy if he ate the whole down to the hearty dessert of charlotte russe and salt almonds. Americans with their way to make in the world need more ballast than the dainty plats of three chicken wings and a spoonful of sauce, which figure in amateur housekeeping articles. Give your boys and girls Miss Parloa's matchless Indian puddings, and Marion Harland's generous good things, and Miss Corson's savory entrees, and let the fancy dessert go by.

The hurried breakfasts and lunches of

school children and lads just entering business lay the foundation for a good deal of weakness and dyspepsia in after life. The sleepy child must hurry through a trim toilet, presentable in public, hurry through breakfast with one eye on the clock, in dread of being late, which drives away appetite, bolts the morsels almost whole, and runs for street-car or train half satisfied. At noon, half an hour for lunch and fresh air is a larger allowance than many public schools afford. A pastry lunch, swallowed in a gloomy basement in the fifteen-minute recess, with all the stress and anxiety of lessons full on the mind, accounts for not a few of the mysterious breakdowns just after graduation. I do not know what will be done to avoid it. We seem to be hurrying our children off the face of the earth, first in school, then in business. But they must be taught, as they value their lives, to eat what they do eat, and grind it thoroughly, as the preventive of digestive misery and death.

—Shirley Dure

Notes and Recipes.

Never begin a journey until the breakfast has been eaten.

The covers of the range should never be allowed to get red hot.

Never take warm drinks and then immediately go out into the cold.

For Sore Throat—Keep chlorate of potash ready, and take four grains, letting it dissolve in the mouth, several times a day.

—V. G.

Merely warm the back by the fire, and never continue keeping the back exposed to the heat after it has become comfortably warm. To do otherwise is debilitating.

When going from a warm atmosphere into a cooler one keep the mouth always closed, so that the air may be warmed by its passage through the nose ere it reaches the lungs.

There should be a small table about the height of the range for use as a resting-place for utensils when omelettes, griddle cakes, etc., are made. It should be covered with zinc.

Choose a time when the ground is dry for taking up plants. The plant is more dormant in dry than wet weather, and less likely to be injured by removal from its native soil.

The white of an egg cannot be too highly recommended for healing burns, chafes, small flesh-wounds and canker sore mouth. I have a small child whose mouth was raw, and everything I used did not seem to help until I used this, and only a few applications completed a cure.

—V. G.

Chocolate Cake.—Rub one and one-fourth pounds of almonds fine with their peel on, or buy the almond paste that comes prepared for use. Take one-fourth pound of grated chocolate, one pound of fine white sugar, one-half ounce each of cinnamon, cloves and two ounces lemon peel. Beat the white of nine eggs, mix the cakes, and drop them on a well buttered pan.

Boiled Ham.—Soak in water over night. Next morning wash hard with a coarse cloth or stiff brush, and put on to boil with plenty of cold water. Allow a quarter of an hour to each pound in cooking and do not boil too fast. Do not remove the skin until cold. It will come off easily and cleanly then, and the juices are better preserved than when it is stripped hot. Cut very thin when carving.

An authority on birds advises that raw apple, cabbage leaf and plantain should be provided and one or the other given to a canary every day the year round. Occasionally give a piece of bread soaked in milk, but never cake or candy. Once a week give boiled egg mixed with cracker. Never hang any birds in a draft or the wind, and never let them out of their cage in molting time give a dusting of cayenne pepper to their egg and cracker, or bread and milk.

Potato Soup.—Pare and slice six common sized potatoes and place them in sufficient boiling water to cover them. Let them boil slowly till done; drain off the water, cover them with rich, sweet milk, add a little salt and pepper, and when the milk boils, thicken it with a smooth flour paste, and just before sending it to the table, add a bit of butter the size of an egg. A few slices of dried beef soaked in cold water

and added when the milk is put proves this delicious soup.

Suet Crust for Boiled Pudding.—Gather fourteen ounces of flour, two of bread crumbs, one teaspoonful of powder, a little salt and six ounces of suet, first skimmed, then shredded, lastly chopped as finely as it can be with a sharp knife and a well floured are essential. After mixing the ingredients, enough cold water must be added to make a stiff crust, the stiffer the better; it must be well boiled what kind of pudding it is used for.

"Scrapple."—Boil a pig's head two in four quarts of water with some salt, a little sweet marjoram. Cut the flesh the bones, mince it fine and return to with pepper and salt. Add enough wheat and corn meal to thicken, about third corn meal to two-thirds the wheat is the right proportion. Simmer together two hours more, when it should be like soft mush, but not too thick to into pans. When it is cold it should firm, so that you can slice it for frying, fry, sprinkle each slice with wheat when there has been any fat in the so it will require nothing to grease the but will fry brown in its own juice you have put no fat in it the pan will be greased only as you would do bread baking. If you are near a butcher or slaughter house get them you some of the "skirrings," as they called, the trimmings that have fallen from them. Boil the ears with the head chop them very finely, skin and all, for scrapple, as they are important parts

The Dread of Death.

It is singular how small is the proportion of persons who have witnessed the scene of the human tragedy. Even clowns do not see their patients exposed frequently as would be thought. But they see it sufficient to strip death consternation. Their presence at the masking of the fancied monster prepares them for the inevitable. When they comes they go at least resigned through silent portal. They are no braver others but they have learned not to be at spectres. Very few men, in truth, afraid to die when the point comes. do not, as may be supposed, relish it they are anxious, as a rule, to live so as their chances are good and they do suffer. When suffering grows acute desire dwarfs (few of us but prefer death) and when they lose hope they themselves without murmur.

I have seen, I repeat, an extraordinary number of persons die, and my observations and experience contradict the theories and opinions on the subject. First I was surprised at the evidence of their own senses; afterward I was convinced they revealed the actual truth. I remember though but a small boy at the time, the man who passed away before my eyes was patient, tranquil, philosophic, conscious of his doom. I had expected to be terrified, to perish in agony, and circumstances made an indelible impression on my budding mind.

I have seen the last moments of death highly nervous women who would shrink at the sight of a spider and who could not mention of death. Any one who has known them would have thought that closing scenes must have been distressing. They longed to live in the beginning, but they ebbed away and were unconscious of the fact, peace and renunciation came to them. No hero of a hundred fights have borne lingering illness and died more serenely. Women, weak and timorous, and horrified as they are at a grim monarch while remote, are calm and intrepid when he stands at their side he advances to seize them they do not blanch or complain. I have won how persons who had appeared to be of everything would meet their fate yet they have met it with equal mind becoming fortitude.

—The Forum.

Whooping cough, croup, sore throat, den colds, and the lung troubles peculiar to children, are easily controlled by promptly administering Ayer's Cherry Pect. This remedy is safe to take, certain in action, and adapted to all constitutions.

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The Young Folks.

Beyond.

The child, at play beside the brook,
His sport suspends awhile, to look
Across the stream, and wonder if
The flowers are sweeter on the cliff
And in the nook
Beyond.

The student, poring o'er the page
That holds the lore of bygone age,
Compares it with the present thought,
And questions what will yet be wrought,
And minds engage
Beyond.

The mother, smiling through her tears—
Her thoughts half joys, her joys half fears—
Beholds the idol of her life
Go forth to mingle with the strife
Of coming years,
Beyond.

The lovers, parted for a space,
Can mask their grief with smiling face,
Because their minds dwell in the light
Succeeding separation's night,
And so find grace
Beyond.

The exile, pausing on the strand,
Thinks sadly on the stricken band
He leaves behind, then sees the sea
Finds life and hope and liberty—
A better land
Beyond.

With pains and griefs our hearts were torn,
And life we're but a space to mourn,
Did not hope chase away the gloom
And summon joy and bliss and bloom
From out the bourn
Beyond.

We happiness pursue; we flee from pain;
Yet the pursuit and yet the flight is vain.
And while poor nature labors to be blest,
By day by pleasure and by night with rest,
Some stronger power eludes our sickly will,
Dashing our rising hopes with certain ill,
And makes us, with reflective trouble, see
That all is destined which we fancy free.
—Prior.

Live while you live, the epicure would say,
And seize the pleasures of the present day;
Live while you live, the sacred preacher cries,
And give to God each moment as it flies;
Lord, in my view let both united be,
I live in pleasure when I live to thee.
—Doddridge.

THE EMANCIPATION PROCLAMATION.

The Nicolay and Hay Life of Lincoln in the December Century gives an account of the first sketch of the emancipation proclamation, the original draft being here printed for the first time. A cabinet meeting was held July 22, 1863, and further conference was had on organizing negro regiments, but Lincoln had decided that the moment had not yet arrived when this policy could be safely entered upon. Writes Chase: "The impression left upon my mind by the whole discussion was that while the President thought the organization, equipment, and arming of negroes like other soldiers would be productive of more evil than good, he was not unwilling that commanders should, at their discretion, arm for purely defensive purposes, slaves coming within their lines." But on the kindred policy of emancipation the President had reached a decision which appears to have been in advance of the views of his entire cabinet. Probably greatly to their surprise he read to them the following draft of a proclamation warning the rebels of the pains and penalties of the confiscation act, and, while renewing his tender of compensation to loyal States which would adopt gradual abolishment, adding a summary military order, as commander-in-chief, declaring free the slaves of all States which might be in rebellion January 1, 1863. The text of this first draft of the emancipation proclamation was as follows:

"In pursuance of the sixth section of the act of Congress, entitled 'An act to suppress insurrection and to punish treason and rebellion, to seize and confiscate property of rebels, and for other purposes,' approved July 17, 1863, and which act and the joint resolution explanatory thereof and here-with published, I, Abraham Lincoln, President of the United States, do hereby proclaim to and warn all persons within the contemplation of said sixth section to cease participating in, aiding, countenancing or abetting the existing rebellion, or any rebellion against the government of the United States, and to return to their proper allegiance to the United States, on pain of the forfeitures and seizures as within and by said sixth section provided.

"And I hereby make known that it is my purpose upon the next meeting of Congress to again recommend the adoption of a practical measure for tendering pecuniary

aid to the free choice or rejection of any and all States which may then be recognizing and practically sustaining the authority of the United States, and which may then have voluntarily adopted, or thereafter may voluntarily adopt, gradual abolishment of slavery within such State or States; that the object is to practically restore, thenceforward to be maintained, the constitutional relation between the general government and each and all the States wherein that relation is now suspended or disturbed; and that for this object the war, as it has been, will be prosecuted. And as a fit and necessary military measure for effecting this object, I, as commander-in-chief of the army and navy of the United States, do order and declare that the 1st day of January in the year of our Lord one thousand eight hundred and sixty-three, all persons held as slaves within any State or States wherein the constitutional authority of the United States shall not then be practically recognized, submitted to, and maintained, shall then, thenceforward, and forever be free."

Of the cabinet proceedings which followed the reading of this momentous document we have unfortunately only brief memoranda. Every member of the council was, we may infer, bewildered by the magnitude and boldness of the proposal. The sudden consideration of this critical question reveals to us with vividness the difference in mental reach, readiness and decision between the President and his constitutional advisers. Only two of the number gave the measure their unreserved concurrence, even after discussion. It is strange that one of these was the cautious Attorney General, the representative of the conservative faction of the slave-holding State of Missouri, and that the member who opposed the measure as a whole and proposed to achieve the result indirectly through the scattered and divided action of local commanders in military departments was the anti-slavery Secretary of the Treasury, Mr. Chase, representing perhaps more nearly than any other the abolition faction of the free State of Ohio. All were astonished except the two to whom it had been mentioned a week before. None of the others had even considered such a step. But from the mind and will of President Lincoln the determination and announcement to his cabinet came almost as complete in form and certain in intention on that memorable Tuesday of July as when, two months later, it was given to the public, or as officially proclaimed the succeeding New Year's day, an irrevocable executive act.

American Stained Glass.

As the art of making stained glass stands here to-day, it has kept a more distinctly artistic character than in the old world. In Europe with governmental patronage and with museum ready to receive works of a large size which such encouragement creates, it is an inferior class of artists, as a rule, who engage in making stained glass. Here, on the contrary, almost every man who has the technical equipment to create large decorative work has been more or less engaged in designing for or making stained glass.

In the old world the field of the glass stainer is virtually limited to the Roman Catholic Church and the Established Church of England. Here, with the widening of sect distinctions, the churches of nearly all denominations are open to him, and it needs no gift of prophecy to foresee in the near future the clear sunshine gaining admittance to all our churches through colored glass and carrying with it messages of faith and fortitude, of joyous hope and reverent memory.

The interesting discovery was made that glass made by the one-man power, as we may say, in small quantities of uneven thickness, and undoubtedly improved by happy accident (as when by a failure to make one color another, and perhaps better one, was obtained) was greatly more varied in tone and color than that made by modern improved processes. By this discovery, and by the consequent demand for such glass, a new field was opened for ambitious men, who from workmen became masters on a small scale, and it is from men such as these, constantly experimenting and working with a small force and by hand power, that the best glass is still obtained. As uniformity had been the criterion of excellence, now

variety obtained the palm, and it has kept it, until to-day the larger stained glass window manufacturers carry a stock of glass that in its variety of hue and shade far exceeds the range of the painter's palette.

In the effort to avoid the error into which the European makers had fallen—of depending too largely upon painting the glass—our early makers tried various expedients. The first and most natural of these was little else than an adaption of the principle on which are made the familiar porcelain glass lamp shades, with landscapes modeled on their surface. As the picture is seen in transparency it is necessary to make the darkest accents the thickest and most opaque portions of the glass, and proceeding in this manner, making thinner or thicker the glass as the intensity or delicacy of the tone requires, a curious sort of bas relief is made, which placed in front of a light, appears to be painted on the surface.

With great effort heads and draperies were modeled in this manner and cast in glass, but the effect was never satisfactory; and having learned the lesson that one may be too much of a purist, our glassmakers now use vitrifiable colors when it is necessary. In the course of this experiment an advantage was gained by the making of what is now technically known as drapery glass. This is made from the glass as it is thrown in a melted state upon a flat table of iron to be rolled into a disk. When the glass is spread out, very much like plecrust, the roller by which it is spread keeping up the resemblance, the edges are seized by the glassmaker, armed with short tongs, who overlaps an edge, or pulls and twists it in various directions as his fancy may suggest. This glass when annealed and cooled reveals in great variety the flow and twist of folds of drapery, and when the artist artisan, with the main direction of the lines of the draperies of the cartoon which he is following firmly fixed in his mind, visits the racks in which, row upon row, the disks of glass are stored, he is generally able to select pieces which, placed in the window, represent in the color of the glass, unaided by the painter's skill, the most subtle gradations of light and shade in the form of the drapery.—Seibner's for December.

Things Worth Thinking About.

Pure thoughts produce pure actions and vice versa.

A city supported by the blood of its poor is cursed beyond comparison.

The greatest danger to our country is the love of party rather than principle.—George Washington.

If we could sweep intemperance out of the country, there would be hardly poverty enough left to give healthy exercise to charitable impulses.—Philip Brooks.

Temperance puts wood on the fire, meal in the barrel, flour in the tub, money in the purse, credit in the country, contentment in the house, clothes on the back and vigor in the body.—Franklin.

Railroads don't want drunken men, merchants don't want them, and even the barroom keepers don't want drunken clerks. It's a strange thing to sow seed if you don't know what to do with the harvest. Sow whisky, reap drunkards and drunkard's children.—Sam Jones.

All the money of the country—gold, silver and paper—amounts in round numbers to about \$1,200,000,000. The annual drink bill of the United States is not far short of \$900,000,000; therefore, every dollar passes through the till of the saloon, once every sixteen months.

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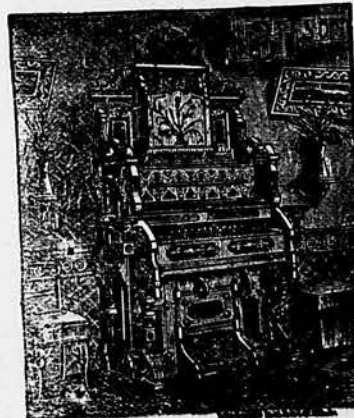
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Look out for the "corn binder" swindle.

We have an unusually large number of communications on file. They will have attention as fast as they can be reached.

A meeting is appointed for to-day in Topeka, by representatives of the livestock producing States to perfect a plan for securing the enactment of inspection laws.

Swindlers are abroad. Farmers should be careful to sign no papers except receipts for money, and then all the figures should be written out, and the signature placed close to the writing.

The last report of the State Normal school shows that the attendance of students has increased from 250 in 1883 to 875 in 1888. Of the parents of the students, 679 reporting, 404 are farmers.

George Washington was inaugurated President of the United States, in New York City April 30, 1789. A centennial celebration of that event will be had on the 30th day of next April with imposing ceremonies.

The long looked for index has come at last. The reader will find a "Table of Contents" at the head of the first column on page 3. It will be a great convenience for all readers, but especially for those who file the paper.

The *Western Rural*, is claiming to be "twice the size of any other paper," misses the truth by a very wide margin. The truth is it is only 40 per cent. larger than the *KANSAS FARMER* while its subscription price is 50 per cent. higher.

A subscriber in Cheyenne county, in a postscript to a business letter, says: "Cheyenne county has raised lots of corn in spite of the lying reports in Eastern papers against western Kansas. Corn is selling in St. Francis at 80 cents per bushel."

Prof. Swenson, writing from Fort Scott to the *New Orleans Item*, some time ago said: "The development of the sugar industry is almost paralyzed by the tariff agitation." If that was all that was in the way, the sugar business ought to go ahead lively this year.

GREAT ENCOURAGEMENT.

Nothing in the experience of the managers of the *KANSAS FARMER* has pleased them more than the interest taken in the success of the paper by our old subscribers at this time. The Business Manager reports that a much larger number of new subscribers have been added to our list the past sixty days through the active efforts and influence of old readers than ever before. Most of our subscriptions begin and end with the calendar year; renewals have been coming in very fast the last thirty days, and this is gratifying, for it shows that the paper has steadfast friends who will stand by it, and we know they will join us in tendering thanks specially to those zealous persons who go out among their neighbors and induce them to take the *KANSAS FARMER*. Such friendship lightens the labors of workers at this end of the line. Our friends will have no reason to regret their course; the paper will grow better and not worse, stronger, not weaker. May the good Father help us all to do well.

OUR NEW QUARTERS.

The *KANSAS FARMER* is now issued from one of the best buildings in the State. We began moving the last day of October and have just got "fixed." A picture of the *KANSAS FARMER* building is shown on our first page this week. It is situated on the southwest corner of Fifth and Jackson streets, is 100 feet by 50 feet, four stories high above the basement, north and east walls faced with pressed brick, the inside finished with hard pine lumber. The building is furnished with all modern conveniences; an elevator run by electricity and water carries persons from one floor to another; each floor has water closets, and every room is provided with water. Electric light is now used, though there is a gas connection so that gas may be used if necessary or preferable. The foundation stones were laid and the basement walls built in the fall of 1887. Work was resumed early last spring, and a few mechanics are still at work putting on the finishing touches. The building is the property of Ex-Governor Crawford and Hon. J. B. McAfee, members of the *Kansas Farmer* company, and will cost about \$60,000.

The rooms occupied by the *KANSAS FARMER* are those north of the hall in the lower or basement story. A standing invitation is extended to all our friends, when they visit Topeka to call and see us in our new quarters.

PROF. BLAKE AND THE KANSAS FARMER.

Although it was done two or three times before, it seems necessary to again explain the relation which Prof. Blake bears to this paper. He believes he has discovered the correct theory of weather, and that for large areas he can calculate mathematically what the weather will be at any given period in the future. The basis of his theory is the influence which the sun and the planets, with their satellites, have upon the earth's surface and the atmosphere surrounding it. If the sun and planets do really have any such influence and that influence is known, then it would be as easy to foretell weather conditions in large areas on the earth as to foretell eclipses. Prof. Blake is satisfied he is right that far. But there are local influences which interfere to modify planetary influences, and these are not yet so well understood as to justify

positive predictions for small areas; this accounts for most of the failures in Blake's predictions, as he believes. He does not pretend to calculate for counties. Nor, indeed, does he profess absolute accuracy as to larger sections, but he believes his researches are getting him nearer and nearer to a complete mastery of the subject.

Such is Prof. Blake's theory and belief. He commenced the publication of a paper called *The Future*, devoted to this subject. He obtained a large number of subscribers, but not enough to support the paper. The editor of the *KANSAS FARMER*, believing that if Mr. Blake has gone as far as he thinks he has, he ought to have an opportunity to prove his faith by his works, for if he can really predict weather, even for areas as large as Kansas, his forecasts would be worth more to farmers than a surrender to them of all the notes and mortgages they owe; and with that kind of feeling in the matter, it was suggested that Mr. Blake have a column in the *KANSAS FARMER* for the publication of his "weather predictions" from month to month for one year, without pay except a commission on such subscriptions as his predictions bring to the paper. We do not assume any responsibility for Mr. Blake's work; it is his, and he is entitled to all the credit it brings him; we simply afford him a channel of communication with the people during a period of twelve months; whether the time will be extended depends on the value of his work to the people. We have never gone further than to express our opinion that Mr. Blake is on the right track, and that he or somebody else will yet be able to do just what he thinks he can now do and more. As to Prof. Blake's intelligence and personal character, they both deservedly rank very high. He is not a crank, but an educated, clear-headed gentleman who is striving to benefit his fellow men by utilizing his knowledge of astronomical and cosmical laws.

The Old Fight Over Again.

Proceedings in Congress indicate that there will be no tariff legislation during the life of the present Congress. Republicans opposed the House bill solidly last summer, and now Democrats are solidly opposing the Senate bill. The language of Democrat Congressmen shows that they do not intend to give up the fight for "tariff reform;" the President, in a letter recently published insists on continuing the contest; Mr. Secretary Fairchild in an after dinner speech, a few days ago, said the fight is but barely begun; and Mr. Speaker Carlisle, only last week, declared himself strongly in favor of going ahead with the struggle. The President says it is the people's cause and must be fought out to the bitter end. In view of the fact that the next Congress will be Republican in both branches with the President in accord politically, it may be expected that something like the Senate tariff bill will become law early in the first session of the next Congress, and the fight will be renewed in 1890 and in 1892, and again and again other years until an overwhelming majority one way or the other shall settle the matter forever.

This makes it necessary that the people should study the subject for themselves during the quiet times between election campaigns, and they need reliable help. PEPPER'S TARIFF MANUAL was compiled for that very purpose. It is wholly non-partisan, containing only facts not disputed—official facts, giving the people a foundation on which to build their own opinions in their own way. It is a little book 3 by 5 inches, three-eighths of an inch thick—just fits a vest pocket, and

is good authority for all parties. It contains matter not found in any of the party tariff books; it is just what is needed by persons who want facts without any party coloring. Mr. H. A. Heath, of the *KANSAS FARMER*, has some copies of the little book left, and will dispose of them to readers of the *KANSAS FARMER* at about half price—that is 15 cents apiece, two copies for 25 cents, five copies for 50 cents; or he will give one copy as a premium to any old reader of the *FARMER* who sends in one new yearly subscription to the paper with \$1 to pay for it.

GET ABOARD NOW.

We have been in the habit of waiting a few weeks for subscribers to renew, and there is no objection to that policy when all subscribers do renew; but when they do not, the price of our paper is so low and the cost of making it so high that two or three issues given out for nothing take off the profits on a whole year's subscription of a paying subscriber. For that reason we cannot afford to continue the rule. Persons who intend to renew, should do so at once if they do not wish to miss any numbers. Our list is so large that we must limit ourselves closely to rigid rules. When the time paid for expires, unless the subscription is renewed, the name will be dropped. Get aboard now.

National Dairy Fair.

Through the courtesy of the Central Traffic Association and the Western States Passenger Association, all persons attending the National Dairy Fair Association meeting, to be held in Springfield, Illinois, January 15, 1889, will be granted special excursion rates over all lines of railway coming under their jurisdiction. Printed instructions and blank forms of certificates furnished all members, delegates, and others who desire to attend, by sending by first mail your name and address to the Secretary, Horace J. Newberry, Topeka, Kansas.

The Illinois State Dairy Association annual meeting and exhibition begins at same place on January 16, 1889, so that certificates to the National Dairy Fair Association meeting will be good to cover time of that meeting also.

Kansas Sugar Industry.

We are in receipt of a long letter from Henry Butler, late of Douglass township, Butler county, this State, but now of Ward, Lonoke county, Arkansas, in which he states that the Douglass sugar works were not a success. He gives some statements concerning the history of the works and their management, and then claims that sugar-making in Kansas is not now and never will be successfully prosecuted.

Notwithstanding Mr. Butler's statements and opinions, sugar was made at the Douglass works from cane raised in Butler county, and the facts, if facts they be, that some irregularities occurred in getting the factory built, and that farmers were not paid promptly for the cane they delivered at the works, have no bearing on the question—"Is sugar certainly made from sorghum cane?" It is so made, as nearly a million pounds of sugar made in Kansas in the year 1888—made at four places, of which Douglass was one.

Several mistakes were made at Douglass, and a good deal of money was lost; but the persons who run the factory next year will not undertake to work on untried methods. Prof. Cowgill's report will soon be published, and that will give the facts.

Blake's Weather Tables for 1889 and this paper one year for \$1.50.

is reported that dehorned cattle in considerable numbers are received at Chicago stock yards, and their condition is noticeably better than that of cattle with horns; they are in better flesh and are not freshly scratched and scarred.

sugar factory which will work up hundred tons of cane in twenty-four hours will cost from \$60,000 to \$75,000, according to the best information obtainable. Government aid goes to erecting, not to building factories, State aid goes to the manufacturer and a pound for sugar made from cane plants.

Mr. Haaff, the great and original dehorner, writes us to warn the people against purchasing a patented dehorner which is being sold by Messrs. Foster and Richards. He says they are charging farmers \$125 for county permits; and he says, further, that all who know about dehorning they learned from him, that their chute is no better than his, that anybody can make one in the pattern and plan in his book, which can be obtained at the KANSAS FARMER office for \$1.25.

Mr. Thomas Purves, a good old Scotch friend of the KANSAS FARMER, reviewing his subscription, sends some news from Dickinson county. He says crops do not pay in his section. Listed corn does better than that planted the usual way, stands up better and goes through dry weather better. He refers to a bit of profitable experience in the summer of 1881. He plowed his corn ground ten inches deep, and when dry either came his corn was black green while that of his neighbors who had plowed shallow was yellow. He does not believe in fall plowing because it loosens the soil so much that it is liable to be blown away by the wind during winter.

The Hart Pioneer Nurseries, of Fort Scott, send us a carefully prepared 12-page pamphlet entitled "The Cost and Profits of Mercantile Orchards in Eastern Kansas and Western Missouri." It consists of letters from growers and extracts from the reports of the horticultural societies in both States. It is intended as a condensed statement of this interesting and important industry. They conclude by urging to sell trees on a system of installment payments to parties desiring to plant large orchards. They also advise a circular stating that the Kansas City Star and Bullene, Moore & Berry, of Kansas City, have offered premiums aggregating \$1,100 to parties planting forest trees in Kansas west of the beginning at the northeast corner Phillips county and running thence north to State line. Parties wishing either or both of these pamphlets should address the Hart Pioneer Nurseries, Fort Scott, Kansas.

Kansas Dairy Association.
The second annual meeting of the Kansas Dairy Association will be held at Topeka on the 5th, 6th and 7th days of February next. It is important to the dairy interest generally and to the interests of individual dairymen in Kansas that the meeting be attended liberally by persons interested, even in a small way, in the dairy or in what goes on or comes from it. The discussions will cover a wide range of thought applicable to Kansas agriculture in its relation to the growth of cattle and the production of milk and butter. The members are working hard to make the meeting successful. Prominent dairymen of other States have been invited to attend. A program has been prepared including every department of

dairying; it will be printed in the KANSAS FARMER next week. We hope to see a large and interesting meeting.

A Letter From the President.

President Cleveland was invited to be present at the annual dinner of the Massachusetts Tariff Reform League in Boston the 28th of last month. It was not convenient for him to accept the invitation, and he wrote the following letter in response:

EXECUTIVE MANSION, WASHINGTON, D. C.,
December 24, 1888.

Messrs. Russell, Hale and others, committee:

GENTLEMEN:—I am exceedingly sorry that I cannot be present at the annual dinner of the Massachusetts Tariff Reform League on the 28th inst. This is not merely a formal and common expression of regret. It truly indicates how much I should enjoy meeting the members of your league, and how glad I should be to express in person my appreciation of their important services in a cause to which I am earnestly attached, and to acknowledge at the same time their frequent and encouraging manifestations of personal friendliness. I know, too, that it would be profitable and advantageous to be, even for a brief period, within the inspiring influence of the atmosphere surrounding patriotic and unselfish men, banded together in the interest of their fellow countrymen and devoted to the work of tariff reform.

This reform appears to be as far reaching in its purposes as the destiny of our country, and as broad in its beneficence as the welfare of our entire people. It is because the efforts of its advocates are not discredited by any sordid motives, that they are able, boldly and confidentially, to attack the strongholds of selfishness and greed. Our institutions were constructed in purity of purpose and love for humanity. Their operation is adjusted to the touch of national virtue and patriotism, and their results under such guidance must be the prosperity and happiness of our people; and so long as the advocates of tariff reform appreciate the sentiments in which our institutions had their origin; so long as they apprehend the forces which alone can guide their operation; so long as they, in a spirit of true patriotism are consecrated to the service of their country temporary defeat brings no discouragement. It but proves the stubbornness of the forces of combined selfishness, and discloses how far the people have been led astray, and how great is the necessity of redoubled efforts in their behalf. To lose faith in the intelligence of the people is a surrender and an abandonment of the struggle. To arouse their intelligence and free it from darkness and delusion gives assurance of speedy and complete victory.

In the track of reform are often found the dead hopes of pioneers, and the despair of those who fall in the march. But there will be neither despair nor dead hopes in the path of tariff reform, nor shall its pioneers fail to reach the heights. Holding fast to their faith, and rejecting every alluring overture and every deceptive compromise which would betray their sacred trust, they themselves shall regain and restore the patrimony of their countrymen, freed from the trespass of grasping encroachment, and safety secured by the genius of American justice and equality.

Yours very truly,
GROVER CLEVELAND.

Farmers' Institute at Sterling.

The report reached us so late as to be old. The proceedings were interesting from beginning to end. J. B. Schlichter presided and Fred C. Keys, acted as Secretary. The Agricultural college

was represented by Professors Shelton and Popenoe, and Mrs. Winship. Dr. Bohrer read an article on dehorning cattle, Prof. Wilson, of Cooper Memorial college, read a paper on alfalfa; Prof. Popenoe, discussed chinch bugs; Dr. Branch, treated farm dairying; J. B. Schlichter, talked about orchard culture; Mrs. E. E. Winship, read an essay on the rights of our children; E. P. Fisher, opened the discussion of varieties of grapes; Wilson Keys, took up general farming and stock-raising; Prof. Shelton, explained silos and ensilage; W. N. Hall, discussed the culture of small fruit. Interesting discussions followed the opening addresses on all of the subjects treated, and steps were taken to organize a permanent institute.

Reaching Out to the Farmers.

The following letter from the Secretary of the State Board of Agriculture will be read with interest by every farmer. It is encouraging to learn that the officers of the Board are working up toward still higher standards of usefulness. We will avail ourselves of the Secretary's invitation and be present when the Board meets, hoping to find every member alive to the importance of this particular subject. Here is the letter:

EDITOR KANSAS FARMER:—Your editorial in last week's issue of the FARMER under heading of "Commissioner of Agriculture for Kansas" has been read with much interest, and I desire to say that your suggestions in reference to the need of institute work among the farmers of Kansas are timely and entirely in harmony with the sentiments of the President and Secretary of the State Board of Agriculture. The same thought occurred to us during the summer, and it was decided some time ago to have the subject brought up at the annual meeting of this Board on the 9th inst., for consideration, and if thought expedient to request our law-makers to furnish the legislation needed to carry into execution whatever plan might be thought wisest and best. No man of intelligence questions the need of institute work among farmers. Other States for some years have been moving in that direction, and in order that we might have all the light available on this subject, I wrote for and received the plan of institute work adopted in other States both in the East and West. These will assist us in determining the plan of work for our State. You and all others interested are earnestly requested to attend the meeting of this Board on the 9th inst., participate in the exercises, and especially to assist in determining the plan of institute work to be adopted in our State. The annual meeting of this Board has been of late years partaking more and more of the character of a farmer's institute, and it is hoped that in time it will develop into a grand State farmer's institute, at which every county in the State will be represented and work of the highest order and most practical character done. Through these representatives and other live practical farmers drawn to the meeting by the interest awakened, light and vitalizing influences will be disseminated throughout every portion of the State, and great good would result to the agricultural interests.

M. MOHLER.

Topeka, January 1, 1889.

Farmers' Institutes—Times and Places of Meeting.

Below is a list of Farmers' Institutes to be held in Kansas this winter, with the names of those members of the Agricultural college faculty who expect to be present:

Gardner, Johnson county, January 3 and 4, Profs. Shelton and Olin.

Douglas county, locality, (not definitely fixed), Profs. Fairchild, Kellerman and Lantz.

Wabaunsee, Wabaunsee county, January 10 and 11, Prof. Graham, Mr. W. M. Cottrell.

Peabody, Marion county, January 24 and 25, Profs. Shelton, Burleigh, and Mrs. Kedzie.

Barnes, Washington county, January 31 and February 1, Profs. Popenoe, Olin and Failyer.

El Dorado, Butler county, early in February, Profs. Shelton, Failyer, and Mrs. Kedzie.

Meat Inspection.

A member of the Topeka city council, Mr. Tillotson, went to Kansas City to investigate the method and effect of inspection of animals at the stock yards. Upon his return he presented the following report: "In company with others I visited Kansas City. We were kindly given every facility for examining the stock yards and packing houses. There is one man employed to inspect stock received in the yards in Kansas and another for those in Missouri. Most of the stock is received in the yards in Kansas. As many as 12,000 cattle, besides hogs and sheep, have been received in one day within the past six months. The inspector appears to be very conscientious and capable man. About 2,000 cattle, besides hogs and sheep, are slaughtered at the mouth of the Kaw river each day. The municipal inspection is necessarily confined to condemning stock with obvious defects. That this is so is shown by the fact that the stock yards authorities keep a man stationed at each of the five gates through which cattle are taken by local packers and butchers, whose duty is to permit no cattle to go out unless they appear fit for food. If properly inspected by the municipal authorities, such guards would not be necessary. In one pen I saw a bunch of cattle of different degrees of worthlessness, from a scabby calf to an overgrown cow, and learned on inquiry that these cattle had been passed by the inspector, but rejected by buyers and were collected in one pen for anybody who would take them. I found in the slaughter houses beeves with the skins off that were not fit for food and were acknowledged to be unfit for food by the superintendent who said the carcasses would be sent to the rendering establishment. The management were frank enough to say that the only inspection that was of value was at the killing and dismembering. This inspection is scarcely attempted by the municipal authorities. With these facts before me, I do not consider the inspection at the mouth of the Kaw sufficiently thorough for us to rely upon. One man can come much nearer thoroughly inspecting the few head of stock slaughtered at Topeka than one man the thousands in Kansas City. I would, therefore, recommend that the committee on rules and ordinances be directed to report to the next meeting of this council an ordinance or ordinances covering defects in our present ordinance relating to food inspection."

A Good Investment.

An old friend, renewing his subscription adds a postscript, as follows: "This begins my twenty-first year with the KANSAS FARMER. It has cost me upwards of \$30, and it is money well spent. Such a fund of knowledge about Kansas, her people and resources, and the ways of farming peculiar to Kansas as I have gained from reading it, is worth more to me than the money could possibly be at 36 per cent."

Farmers' Institute Reports.

The KANSAS FARMER would be greatly pleased to publish brief reports of farmers' institutes which are held in different parts of the State, provided they are forwarded to us promptly and while they are fresh. Every institute has a Secretary who keeps a brief record of proceedings, and if that, or a copy is forwarded to this office the day after adjournment, it could be printed the next week. When a representative of the paper is present and makes a record, that is sufficient; but we want a report whether our man is present or not.

Kansas State Farmers' Alliance.

The annual meeting of the Kansas State Farmers' Alliance will be held in the city of Topeka, on the first Wednesday in February 1889, for the transaction of such business as may come before it.

The basis of representation shall be one delegate from each subordinate alliance and one additional delegate for each twenty members or major fraction thereof, of such subordinate alliance. Only such alliances as have paid up their dues in full shall be entitled to representation.

By order of the President.

F. J. MCLAIN, Secretary.

Horticulture.

SMALL FRUIT CULTURE.

Paper read by W. N. Hall, before the Farmers' Institute, held in Sterling, Kas., December 13 and 14, 1888.

The frost and the drouth of the past season have been the most discouraging of any season during the nine years that I have been growing small fruit in Kansas, which, no doubt, may lead some of us who are engaged in that line of industry to look on the dark side, and to feel that we have more to contend with than any other class, and in view of this state of things, perhaps it would be well to consider some of the advantages of our occupation. By so doing we may possibly find that we have more to encourage than we ever before thought of. Even when things are most prosperous it is natural for us to magnify our difficulties and drawbacks, and forget our advantages. Let us now reverse this order, and congratulate ourselves that we have done as well as we have. How many of our brother farmers have even done worse.

Fruit-growing is a business that benefits all classes and injures none. There is ten times as much grown in Kansas now as ten years ago, and each year increases the supply and demand. Owing to the heavy frost on the 29th of April last, the grape came nearer making a failure to produce a crop of fruit than it ever did since I have been growing that fruit. The grape is one of the hardiest and most profitable fruits we grow and are so universally liked and are so wholesome and easily grown. It will cost less to start than an apple or pear tree and will bear fruit sooner, and can be grown in most all kinds of soil, but a warm, well-drained soil is essential to the successful growing of grapes. Were I to plant another vineyard I would plant but few varieties. The Early Victor for early, the Concord for medium and the Wilder for late. My opinion is the three named varieties are by far superior to any other ten varieties now in cultivation for this climate, either for market or home use. There are a few other varieties that succeed moderately well with me. The Pocklington, the Delaware and Moore's Early are all hardy, but only moderate bearers of annual crops of excellent fruit. I make this selection out of the twenty-six varieties I have now under cultivation. I have several varieties I have cultivated for five years and have never borne a bunch of fruit yet. The selection of varieties is a question that is asked on all sides, and is one of the greatest importance. To people having no experience of their own my advice is to get the opinion of the most reliable fruit-grower in your vicinity. So many people after taking great trouble and expense in selecting and planting their vines, fail of success by neglecting that after care and attention which is equally essential. The surface only should be stirred, to avoid damaging the roots. The ground should be kept constantly clean and mellow. No ridges or furrows should be formed between the rows. Before planting the ground should be well prepared, the same as for a crop of potatoes or corn. Mark each way with a plow eight feet and plant at the crossing of the furrows about six inches deep, leaving the first bud even with the surface, cutting the vine all away above one or two buds at planting, and never allow but one shoot to grow the first year. The first

year the young vines may trail on the ground, but the second season and every one thereafter they should be tied up to stakes or wires stretched along the rows fastened to posts. It does not matter what we train the vine on so they get the full benefit of the sun and the free circulation of the air.

THE RASPBERRY.

To grow raspberries successfully you should have a good soil and well drained. They are sooner injured by excessive moisture than most any other cultivated fruit. The ground should be plowed deep and harrowed down level. This should be done in the fall or early spring previous to setting the plants, which should be done as soon as the ground becomes warm and in good working order. Before planting I list out the rows seven feet apart and plant with a hoe three feet apart in the row. No part of fruit culture is of more importance than a knowledge of such varieties that will do best in your locality. This must be learned in part by each one for himself. By my own experience I would recommend the Souhegan for early and the Gregg and Hopkins for late. I plant in the bottom of the listed rows, but cover the crown of the plants only about one inch deep with light moist soil. The ground should be well stirred and all weeds kept down. When the young shoots obtain a height of about one foot the tips should be pinched off. The second year and every year thereafter I pinch off the growing shoots when about two feet high. They then cease to grow in height, but throw out laterals in all directions, balancing and supporting the main stem effectually. The following spring, early in the season, I cut back all laterals, leaving them from one to two feet long, and at the same time we take out all the old last year's canes. After pruning I gather and carry out and burn all the brush from between the rows. I then cultivate as often as necessary to keep them clean. When the fruit begins to ripen I stop cultivating until after the fruit is all gathered, then I cultivate thoroughly in order to get a good strong cane for the next year's crop of fruit. For many years I practiced the tying up of canes, first to stakes, then to wires stretched along the rows fastened to posts set in the rows. Either plan I found expensive and slow work. It did well enough when I had a patch of only a few rods square and did not know any better, but when our patch grew to acres instead of rods I found it was not the thing to do, especially so when I learned that stakes and wires were of no use; I might say entirely unnecessary. By adopting the pinching-back process at the proper time I save the expense of stakes and wire and the time necessary to tie the canes to them, and raise just as many berries per acre. The Black-cap raspberry has proved to be hardy and very productive with me. The summer of '87 I picked sixty-five bushels of berries from an acre of three-year-old plants, but last season from the same patch we only picked forty bushels, owing to the severe winter and late frost. In the summer of '85 I picked fifty bushels from three-fourths of an acre of the Turner raspberry, a red berry of good quality, but every winter since then the canes have been killed to such an extent that we have not picked a dozen quarts of berries. Consequently I cannot recommend them for this climate.

The blackberry should have naturally

or artificially a well-drained soil. On such a soil the canes will often pass in good condition through a severe winter which would destroy the same variety in low undrained ground. My observation in my own patches and others fully satisfies me of this fact. Use the same care in the selection of varieties, setting of plants, thorough cultivation and pinching back as in the raspberry. I have never failed to have a fair crop of blackberries during the last six years of the following varieties: The Snider for early, Kittatinny for medium, and the Taylor Prolific for late. Those three varieties cover the entire blackberry season; all hardy and very productive. If not naturally so the soil should be well enriched and deeply plowed before planting, to enable the young plants to make a rapid growth and produce a crop as soon as possible, but for the production of large and luscious fruit, and to prevent the injurious effect of drouth, the ground should be heavily mulched with old hay, coarse litter or leaves to the depth of four to six inches, when the canes become of bearing age. By so doing we retain the moisture which is very essential through July and August, when the fruit is ripening. The mulching should be renewed every year. The young canes should be nipped off as soon as they obtain a height of two and a half or three feet, to force them to throw out side branches, thus supporting and balancing the main stem. By so doing I never have any trouble about my canes blowing or falling down by weight of fruit or heavy snow storms. Early in the spring I cut out all the old canes that bore the crop the previous season and carry them out and burn them. For this purpose I use a pruning hook made as follows: Take a piece of flat steel about one inch broad, hammered to an edge and curved into a hook and ground sharp and fastened into a handle about three feet long. This is the best and handiest tool I ever used for cutting out the old canes of either the blackberry or raspberry.



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The Poultry Yard.

ABOUT THE BREEDS.

The November *Poultry-Keeper* has an extended article discussing the breeds of poultry, with their points of excellence. It is too long for one issue of the *FARMER*, but we will reprint it in parts from week to week until it has all been given to our readers. The *Poultry-Keeper* is good authority.

LANGSHANS.

Although many suppose the Langshans and Black Cochins to be the same, yet there is some difference between them, which any one may notice by close observation. The (American) Langshan cock has a horn-colored beak, rather flesh-colored near lower edge, brown or hazel eyes and red face, with the head broad. The hen is similar, of course, possessing a head not so broad. The beak of a Black Cochin is yellowish horn color, or yellow with a black shade. The comb is red, rather large and single, straight and evenly serrated. So is that of the Black Cochin, except smaller. The cock should have red earlobes, which should be pendant, with medium, well-rounded wattles, while those of the hen are very similar. Those of the Black Cochins are also similar. The neck of the cock should be well arched, medium in length, with full flowing hackle. The neck of the Black Cochin is somewhat shorter. The tail of the Black Cochin cock should be large, full, and carried horizontal, while that of the Langshan should be large and full, with sickle feathers at least six inches in length, with long side sickles, and the tail carried gracefully. The tail of the Langshan hen should be carried well up, the tail coverts being long and prominent. The back should be broad, short and having a gradual rise to the tail from the center, with plenty of saddle feathers over the sides. The hen should have, also, a short back, with full cushion, rising well upward. The back of the Black Cochin is somewhat similar. The breast should be full, deep and round, with body broad in front of the thighs, the wings close and smooth. The Black Cochin is also similar. In the Langshan the fluff is not as heavy as that of the Black Cochin, but should hide the profile of the hock joints, while in the Langshan hen the fluff is also heavier than that of the cock. The thighs should be covered with soft feathers, with the shanks also sufficiently feathered to extend down and cover the outer toe. The shanks are bluish black, with pink between the scales, and pinkish white on bottom of foot and web. The thighs of the Black Cochin are well covered with soft feathers, with shanks black, gradually approaching yellow, the outer toe heavily feathered, with bottoms of feet yellow. The Langshan is a glossy, metallic black in color, with dark undercolor. The metallic sheen does not cover the breast primaries, fluff or tail. The Cochin is not required to possess the metallic or greenish lustre, but the terms rich black, etc., expressed in the Standard, often makes it difficult to a casual observer where to draw the line. The Langshan is an active bird, can fly up to a high roost, while the Cochin cannot. Although the Standard descriptions of Langshans and Cochins are different in tinges or peculiarities of shade in the black, yet it claims for both that there should be no other color than black, though at times, in the description of the Cochins, the breeder is reminded against red in any part of the plumage. Langshans should not have other than single combs, and such things as vulture hocks, wry tails, or twisted feathers, (as for nearly all other breeds) are objectionable. The middle toe should be only slightly feathered, the yellow skin belongs to the Cochin. In regard to points the head counts 5,

the comb 8; wattles and earlobes 5, back 8, neck 8, breast and body 10, fluff 5, tail 8, legs and toes 8, symmetry 10, weight 10, condition 8, wings 7, total 100. A cock should weigh ten pounds, a hen eight pounds, cockerel eight and one-half pounds, and pullet six and one-half pounds. Short weight causes a loss of two points per pound. We have not thought it necessary to describe a Black Cochin with the Langshans in every particular, as the color is nearly, if not quite the same, while they resemble each other in a great many respects.

Mr. Felch, in *Fanciers' Gazette*, a few years ago, said: "The much-looked-for Standard for Langshans is at hand, with its perfect weight for cocks ten pounds; hens eight pounds; cockerels, eight and one-half pounds; and pullets, six and one-half pounds; with no disqualifying weights, they being the smallest of the Asiatics, and so long as any deficit from standpoint. If any yellow appears in the beak, then the specimen is disqualified. Comb—We cannot disqualify a comb so long as it is single. To disqualify, if lopped or twisted, would be unjust, but in this breed, while we let twisted and falling combs compete these defects are cut with greater severity because of the leniency of admitting them. For a perfect comb, it is acknowledged, is a hard thing to produce; so, by severe cutting of the defect, we give a higher value to the perfect one and we say, that for either 'twist' or 'lop' combs, we cut from one to four points. If the comb be large but evenly serrated, it should not be cut for size, but one close down to the head, not much above the plumage, as is sometimes seen in Cochins, would be looked upon with suspicion, and cut one to two points for smallness of size, and one to three for irregular serrations, as in degree. Wattles and Earlobes.—The wattles should approach the size of those on Cochins, but not so pendulous; if very long, they should be cut a point; if hanging above a line with earlobes, it should be cut a point; if thick and excessively folded one point. Earlobes should be fairly developed and somewhat pendulous, but not hanging as low as wattles, and beyond being cut for the color of them are seldom punished in judging. While color of wattles are affected by condition only and are never cut for color so long as the texture is fine, but in earlobes, we have the surface which sometimes taints. Necks—Medium long and well arched, means, if compared with a Cochin, it shall appear longer, being in keeping with its more fully developed tail; if short, or too straight, or failing to arch gracefully, we must cut a point for all these defects; if the plumage of neck be not a sheeny, metallic black surface, having that greenish or bronzy reflection in a strong light, it should be cut one to two points, as it fails. Should the hackle plumage fail to cover the shoulders and not flow back of the feathers from the arm of the wings, we cut from one-half to one and one-half points, in cocks. This fault seldom appears in hens to more than one-half to one point in extreme cases. Back.—In this, we see in form no material difference from the Cochin, beyond, that the saddle takes an almost straight incline plane from just back of hackle high up on the tail, while to pull the tail out, the saddle will be the same as the Cochin, the large high tail giving the shape described. We therefore, are governed in the cut of back by the size of growth of the tail, and we say, a scant saddle is an abomination in a Langshan, and cut from $\frac{1}{2}$ to 2 for size and fullness, and from $\frac{1}{2}$ to 3 points for color, which should match the hackle in color. The saddle should be long and flowing, corresponding to the



WOMEN AND MICE.

The reason why a woman is afraid of a mouse is a profound mystery—indeed it has never been very closely proven that she is. But some women are constantly in such a nervous, irritable condition that the slightest thing annoys and startles them. The cause of this unfortunate state of affairs is usually so functional derangement; some distressing or painful irregularity, some derangement or peculiar weakness incident to her sex; or, it may be due to inflammation, ulceration or displacement, of some of the pelvic viscera, or to other organic lesions peculiar to her sex. From whichever cause it may arise, Dr. Pierce's Favorite Prescription is a positive remedy, so certain in its curative results that its manufacturers sell it, through druggists, under a guarantee of its giving satisfaction in every case, or money paid for it will be promptly refunded. As a soothing and strengthening nerve, "Favorite Prescription" is unequalled and is invaluable in allaying and subduing nervous excitability, irritability, exhaustion, prostration, hysteria, spasms and other distressing, nervous symptoms commonly attendant upon functional and organic disease of the womb. It induces refreshing sleep and relieves mental anxiety and despondency.

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Dr. Pierce's Pellets, Anti-Bilious Granules, are Laxative, or Cathartic, according to size of dose. By Druggists.

heavy side hangers of the tail, and failure in this respect to be cut from one-half to two points as in degree. *Breast and Body.*—Breast, deep, full and round, and covered with a deep black plumage, of a different shade, but must not be a brownish black, for if such a shade appears it will be cut from one $\frac{1}{2}$ to 1 $\frac{1}{2}$ points. Breast, flat, not being well rounded on the sides, from $\frac{1}{2}$ to 1 point. A bird with nothing in the crop will look flat, and a judge should feel before he condemns for flatness of breast, but if with a full crop it shows a depressed front, we should cut from $\frac{1}{2}$ to 1 point. Body, thick in front of thighs it but saying, the posterior is light as compared to breast weight. Herein the Langshan is discerned, when in comparison with Cochins. They do not have broad, meaty fluffs, therefore, one with slight depth of body in front of thighs, and full, Cochin fluff would be cut in body and in symmetry, both sustaining a cut from $\frac{1}{2}$ to 1 $\frac{1}{2}$ points as in degree. All the points on which the Langshan and Cochin may take common ground the judges agreeing to draw the line with severity.

(Continued next week.)

A Prize Offered.

Mrs. Viola Gribbin, Virgil, Greenwood county, offers a setting of fifteen W. F. B. Spanish eggs to the person who obtains the largest number of new subscribers to the *KANSAS FARMER* from the first day of January, inst., to the first day of April next.

The record will be kept in this office, and the name of the winner announced in the first issue of the *FARMER* after April 1. We will expect Mrs. Gribbin to call our attention to the matter about the 25th day of March, so that there may be no delay in announcement.

How Intelligent Women Decide.

When the question has to be met as to what is the best course to adopt to secure a sure, safe and agreeable remedy for those organic diseases and weaknesses which afflict the female sex, there is but one wise decision, viz., a course of self-treatment with Dr. Pierce's Favorite Prescription. It is an unfailing specific for periodical pains, misplacement, internal inflammation, and all functional disorders that render the lives of so many women miserable and joyless. They who try it, praise it. Of druggists.

Col. F. D. Curtis says that a cow well broken to lead is worth \$10 more than a timid and unmanageable one; "she will make more milk, butter and good nature."

The value of our dairy products for the last year was nearly \$500,000,000. This is \$20,000,000 more than the value of our annual wheat yield, while it closely approximates that of our corn crop, which is the most valuable of our farm products.

American dairy interests are enormous. They represent an investment of nearly twenty-five times the entire bank capital of the country—that is to say, the bank capital is a little less than \$971,000,000, while the dairy interests amount to more than \$23,000,000,000.

Farm Loans.

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

T. E. BOWMAN & Co.,
Jones Building, 116 West Sixth street,
Topeka, Kas.

Republicanism cannot continue when any large class of the people is dissatisfied. Under these circumstances, it is of the utmost importance that we should investigate the causes of the present contempt for, and aversion to, manual labor, in order that, if possible, we may remove them before the effects have worked irremediable evil.

Consumption Surely Cured.

To the Editor:—Please inform your readers that I have a positive remedy for Consumption. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy FREE to any of your readers who by the consumption if they will send me their press and P. O. Address. Respectfully,
A. SLOCUM, M. C., 181 Pearl St., N. Y.

The number of milch cows is estimated 21,000,000. They give each an average of 350 gallons of milk annually. This would make an aggregate milk production of 6,350,000,000 gallons, a miniature ocean, a fair-sized Niagara. Four hundred millions are used for cheese, and the remaining 2,350,000,000 pass through the adulterating hands of the milkman and grocer and down the throats of 60,000,000 men, women and children.

"The Future by the Past," and the Kansas Farmer one Year for \$1.50.

We have made arrangements for a limited time with J. C. H. Swann, author of the "Future by the Past," price \$1.00. It has had a wide sale on account of being a perpetual calendar of predictions. The supply on hand is small and we propose to give our readers a chance to secure the book at half price in connection with the FARMER.

There was much in the system of swine-growing a quarter of a century ago that was commendable, and can still be practiced by many with profit. One of these conditions was to give the sow while in farrow the run of timber lands—with a little grain, when a short mast made it necessary to keep her in good flesh. She was allowed to select her own place to farrow and left there till her pigs could travel to convenient quarters. During this time care was taken to feed the sow properly to insure a strong flow of milk, quantity being preferred to quality.

The American farmer surely has a bright future before him if he will only lay hold of present opportunities and labor to the best advantage. To the close-fisted farmer, who has the means to improve his condition, but through shortsightedness has drifted along from year to year, standing in his own light and adding very little, if anything, to his prosperity, we would say, turn over a new leaf; try a new departure by substituting good grades for your scrub stock, make a clean sweep, though it has to be done at an apparent sacrifice, and rest assured that the day is not far distant when you will reap your reward in additional profits and the satisfaction of seeing everything about you in a prosperous, flourishing condition, that is certain to insure for you an approving conscience, a mind at ease and a happy home.

THE MARKETS.

By Telegraph, December 31, 1888.

LIVE STOCK MARKETS.

St. Louis.

CATTLE—Receipts 1,200, shipments 400. Market steady. Choice heavy native steers \$5 00a5 60, fair to good native steers \$4 40a5 10, medium to choice butchers steers \$3 35a4 45, fair to good stockers and feeders \$2 00a3 20, grass rangers \$2 00a3 10.

HOGS—Receipts 2,500, shipments 200. Market higher. Choice heavy and butcher's selections \$5 15a5 25, medium to prime packing \$5 00a5 15, ordinary to best light grades \$4 90a5 10.

SHEEP—Receipts 500, shipments Market steady. Fair to choice \$3 00a4 40.

Chicago.

CATTLE—Receipts 3,500. Market slow and steady. Best, \$4 25a5 00; good, \$3 65a4 00; medium, \$3 00a3 50; common, \$2 75a3 20; stockers, \$2 00a2 50; feeders, \$2 75a3 15; bulls, \$1 50a2 90; cows, \$1 15a2 90.

HOGS—Receipts 11,000. Market 5c higher. Mixed, \$4 95a5 20; heavy, \$5 05a5 25; light, \$4 90a5 20; skips, \$4 20a4 90.

SHEEP—Receipts 4,000. Market steady. Natives, \$2 75a4 65; Texas, \$2 25a3 00; lambs, per cwt., \$3 50a5 65.

Kansas City.

Receipts for 1888 to date are 1,054,935 cattle, 2,006,806 hogs and 350,924 sheep, showing a gain of 386,090 cattle, 414,452 hogs loss and a gain of 141,100 sheep, compared with 1887.

CATTLE—Prices for the past week both here and at Chicago, have been very uneven and in many cases have lost money to the shipper. The supply to-day was not equal to the demand and more good shippers and butchers could have been sold a dime higher before the close. Sales ranged at \$3 30a3 80 for dressed beef and shipping steers.

HOGS—Packers wanted hogs and paid 5c more for their hogs than Saturday with very little sorting. There were no outside buyers on the market and speculators bought only a few loads. Choice heavy hogs brought the highest prices. The market closed strong with everything desirable sold. A \$5 12½ load sold, which was considered 7½c higher. Bulk of heavy hogs, \$5 05a5 10; sorted light weights, \$5 05.

SHEEP—Receipts since Saturday 557. Good muttons and fat lambs in demand. Prices strong to 10a15c higher. Common steady. Sales: 128 lambs av. 71 lbs. at \$4 35.

HORSES—

Draft—Extra.....	5 to 7 years.....	\$145 to \$180
Draft—Good.....	5 to 7 years.....	110 to 140
Saddlers.....	5 to 7 years.....	110 to 200
Mares—Extra.....	5 to 7 years.....	145 to 170
Mares—Good.....	5 to 7 years.....	75 to 115
Drivers.....	5 to 7 years.....	115 to 170
Drivers—Good.....	5 to 7 years.....	75 to 110
Streeters—Extra.....	5 to 7 years.....	115 to 130
Streeters—Good.....	5 to 7 years.....	70 to 105

MULES—

14 hands.....	4 to 7 years.....	\$ 60 to \$ 75
14½.....	4 to 7 years.....	80 to 90
15.....	4 to 7 years.....	95 to 110
15½, medium.....	4 to 7 years.....	110 to 120
15½, extra.....	4 to 7 years.....	130 to 150
16 to 16½.....	4 to 7 years.....	150 to 185

PRODUCE MARKETS.

New York.

WHEAT—Dull. No. 2 red, \$1 02½.
CORN—Easier. No. 2, 46½c.
OATS—Dull and a trifle easier. Mixed, 30a 32c; white, 32a39c.
COFFEE—Spot dull at 16½c.
SUGAR—Dull.
EGGS—Easy and quiet at 21½a22c.
BUTTER—Quiet and barely steady at 14a31c.
CHEESE—Firm.

St. Louis.

FLOUR—Quiet.
WHEAT—Lower. The prices improved early but advances of heavy stocks in Europe and that millers in this country would run on half time next month, had a depressing effect and the close was ¼c below Saturday. No. 2 red, cash, 99c; January, 98½c; May, \$1 02½a1 04½; July, 91a93c; August, 89½a89c.
CORN—Higher. No. 2 mixed, cash, 30½c; January, 30½a30c; February, 31c; March, 32c.
OATS—Lower and dull. No. 2, 24c.
RYE—46a47c.
BARLEY—Nothing done.
HAY—Quiet. Prairie, \$7 00a9 00; mixed, \$9 00a10 00; timothy, \$10 50a14 50.
FLAXSEED—Nominal at \$1 50.
BUTTER—Large offerings and only light demand. Creamery, 24a27c; dairy, 20a23c.
EGGS—Market overstocked. Best, 16c.
PORK—\$13 75.
LARD—Prime steam nominal at \$7 50.

Chicago.

Articles.	Receipts.	Shipm'ts.
Wheat.....	28,000	13,000
Corn.....	333,000	390,000
Oats.....	119,000	135,000

Cash quotations were as follows:
FLOUR—Firm and unchanged.
WHEAT—No. 2 spring, \$1 01a1 01½; No. 3 spring, 85a95c; No. 2 red, 91a91½c.
OATS—No. 2, 25½c.
RYE—No. 2, 53c.
BARLEY—No. 2, 70c.
FLAXSEED—No. 1, \$1 62.
TIMOTHY—Prime, \$1 50.
PORK—\$12 85a12 90.
LARD—\$7 60a7 62½c.
BUTTER—Dull. Fancy creamery, 28c; good to choice, 23a24c; fine dairy, 22c.

Kansas City.

WHEAT—Receipts at regular elevators since last report 591 bushels; withdrawals, bushels, leaving stock in store as reported to the Board of Trade to-day, 238,775 bushels.

No. 2 Red Winter—Cash, no bids, 93½c asked; December, no bids, 93½c asked; January, no bids nor offerings; May, 98c bid, \$1 00 asked.

No. 3 Red Winter—Cash, December and January, no bids nor offerings.

No. 2 Soft Winter—Cash, 95c bid, 98c asked; December, no bids, 97c asked; January, no bids, \$1 00 asked; February, 97c bid, no offerings; May, \$1 01½ bid, \$1 03½ asked.

CORN—Receipts at regular elevators since last report, 1,515 bushels; withdrawals, bushels, leaving stock in store as reported to the Board of Trade to-day, 109,000 bushels.

No. 2—Cash, 25c bid, 26c asked; December, no bids nor offerings; January, 25½c bid, 26c asked; May, 29½c bid, 29½c asked.

No. 2 White—Cash and December, no bids nor offerings; May, 30½c bid, 34½c asked.

OATS—No. 2 cash, December and January, no bids nor offerings; May, 24½c bid, 24½c asked.

RYE—No. 2 cash, 42c bid, no offerings; December, no bids nor offerings.

HAY—Receipts 34 cars. Market weak. Fancy prairie, \$6 00; good medium, \$4 00a4 50.

SEEDS—We quote: Flaxseed, \$1 35 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; \$12 00 per 1,000 lbs.; \$23 00 per ton; car lots, \$22 00 per ton.

FLOUR—Very dull. Quotations are for established brands in car lots, per ½ 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, stocks accumulating, and market weak and very dull. We quote: Creamery, fancy, 20c; good, 24c; dairy fancy, 22c; fancy roll, 15a16c; good to choice store-packed, 13a16c; poor, 10c.

CHEESE—We quote: Full cream, twins, 12a 12½c; full cream, Young America, 12a12½c.

EGGS—Accumulating and market weak at 17c per dozen for strictly fresh. Held stock slow at 16c.

APPLES—Supply large; \$1 25a2 00 per bbl.

POTATOES—Irish—Market well supplied; home-grown, 30a35c per bus.; Colorado and Utah, 30a35c per bus.; Iowa and Nebraska, choice, 30a35c per bus. Sweet potatoes, white and red, 50c; yellow, 65a75c per bus. Onions, 40a50c per bus. Turnips, 25c per bus.

BROOMCORN—Green, self working, 4c; green hurl, 4½c; green inside and covers, 2½a 3c; red tipped and common, self working, 2c; crooked, 1c.

PROVISIONS—Following quotations are for round lots. Job lots usually ¼c higher. Sugar-cured meats (canned or plain): Hams 10½c, 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.

WOOL—Firm. We quote: Missouri unwashed—Heavy fine, 11a14c; light fine, 14a18c; medium, 19a21c.

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, \$6 50.

BUTTER—Country roll, 25c; fair, 18c; packing house, 20c; cooking, 15c.

EGGS—25c per dozen.

POULTRY—Live—Chickens, per dozen, \$2 00a2 50; turkeys, per pound, 8a10c. Dressed—Chicken, per pound, 10a12½c; turkeys, per pound, 12½a15c.

The Kansas Democrat

A SIX-COLUMN QUARTO PAPER.

DAILY AND WEEKLY

TO THE FRONT FOR 1889!

In the lead of all Kansas Dailies. The only Democratic paper at the State capital. Fresh Editorial, Telegraphic and Local Departments. As an able, fearless and uncompromising advocate of sound Jeffersonian Democracy, it is conceded the Democrat stands at the head of the Democratic press of the State.

DAILY, one year, \$5.00; WEEKLY, one year, \$1.00. Address: DEMOCRAT, Topeka, Kas.

For Sale or Exchange for Good Real Estate, a

Herd of Fine Short-horn Cattle

And one IMPORTED PERCHERON STALLION—an excellent breeder.

Also, one ENGLISH COACH STALLION—very fine. Address

D. H. SCOTT, Topeka, Kansas.

GOLD Live at home and make more money working for us than at anything else in the world. Either sex. Costly outfit FREE. Terms FREE. Address: TRAU & Co., Augusta, Maine.

CALIFORNIA For free information concerning in Southern California, address with stamp JOHN B. ISLER, San Diego, Cal.

HAGEY & WILHELM, COMMISSION MERCHANTS

ST. LOUIS, MO.

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

GENERAL AGENTS FOR COOPER'S SHEEP DIP.

We guarantee sale and full returns inside of TEN DAYS from receipt of shipment.

CONSIGN YOUR CATTLE, HOGS & SHEEP TO

Larimer, Smith & Bridgeford,

LIVE STOCK COMMISSION MERCHANTS,

Kansas City Stock Yards, Kansas City, Kansas.

Highest market prices realized and satisfaction guaranteed. Market reports furnished free to shippers and feeders. Correspondence solicited. Reference:—The National Bank of Commerce, Kansas City.



For Year, 25c. KANSAS CITY, Mo., U. S. A.—ISSUED MONTHLY. Six Months, 15c.

The MISSOURI AND KANSAS FARMER is the cheapest paper in the whole wide world. It has 8 large, clean-printed pages, with 6 columns of matter 20 inches long on each page. Every number contains the Land Laws, showing how to enter GOVERNMENT LANDS. Every number contains descriptions of the Counties, Towns and Townships, telling about the Soil, Water, Minerals, Climate, etc., the Prairie and Timber lands, and their adaptation for Farming, Fruit Growing and Stock Raising. Every number gives letters from farmers and homesteaders now on the ground. Every number is full of Facts for the man who wants to Pre-empt or Homestead Government Land. Mailed to any address in the United States, Canada or Mexico for the trifling sum of 25 cents per year. Remittances may be made with 2-cent American postage stamps or silver. Write names PLAIN. Address, MO. & KAN. FARMER, Lock Box B, Kansas City, Mo. Four months on trial for 10c, so don't ask for samples. Cut this advertisement out.

We will send the above named paper one year free to any one sending us \$1.00 for the KANSAS FARMER for 1889. Offer good until February 1, 1889. Address KANSAS FARMER CO., Topeka, Kas.

888,888 STRAWBERRY PLANTS for sale. 40 varieties. Prices low. Send for B. F. SMITH, Box 6, LAWRENCE, KAS.

STAYMAN'S No. 1 Strawberry. Large and fine. Produced at the rate of 30,000 quarts per acre. Price, \$2.00 per dozen; \$10.00 per 100. **JEWEL** The earliest and best Black Grape known. Equal to the Delaware in quality. Price, \$1.50 each. Send for testimonials. **STAYMAN & BLACK,** Leavenworth, Kas.

Black Walnuts and Butternuts FOREST TREE SEEDLINGS.

Black Walnuts and Butternuts, hulled, for planting, at 40 cents per bushel, free on board cars here. All kinds of Forest Tree Seedlings. Send for Price List. Address **BAILEY & HANFORD,** Makanda, Jackson Co., Ill.

KANSAS HOME NURSERY OFFERS

BEST HOME-GROWN TREES. Choice Fruit and Ornamental Trees of real merit for the Western Tree-Planters. Also best Fruit and Flower Plants. Water-proof. Samples by mail, 10 cents each; \$6 per 100, by express. **A. H. GRIESA, Drawer 23, Lawrence, Kas.**

Lee's Summit Nurseries

APPLE TREES TWO AND THREE YEARS old, of most excellent quality, offered at low rates by the 1,000 or by the carload. Also Peach, Plum, Grapes, etc., etc. **J. A. BLAIR & SON, Proprietors,** Lee's Summit, Jackson Co., Mo.

Hart Pioneer Nurseries FORT SCOTT, KAS.

Established 1865. 460 Acres. Full line of Nursery Stock. Forest Seedlings for Timber Claims and Apple Trees for Commercial Orchards a specialty. Large Premium for planting forest trees in spring of 1889. Treatise on cost and profit of apple orchard, free on application. Good salesmen wanted.

Mount Hope Nurseries SPRING, 1889.

Established twenty years in Kansas. Reliable resident Agents wanted in every town. The most complete stock of Trees, Vines and Shrubs in the West. Understand this is grown here. Dealers and planters can depend on it. Orders packed and shipped on short notice. Let all who want nursery stock correspond with us. State your wants. Catalogues free. **A. C. GRIESA & BRO.,** Lawrence, Kas.

Douglas County Nurseries

Our twentieth year in the business in the county. For the spring trade, a full line of all kinds of Nursery stock at prices that will please. We have a large lot of 2 and 3-year-old Apple Trees that must be sold, as we want to use the ground for other purposes. We are putting up No. 1 Apple Grafts of choice of the most select varieties of apples that are a success in Kansas. Will all orders from one to 50,000 at low figures. Correspondence solicited. Hedge, half a million. Grape vines in quantity and variety. For particulars, write and send for free Price List. **WM. PLASKET & SONS,** Drawer Box 33, Lawrence, Kas.

BIG APPLES are grown from our trees. The largest stock of **FOREST TREES**

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The Busy Bee.

Bees and Honey in 1888.

The following is extracted from the annual address of President Hilton, delivered before the Michigan Beekeepers' Association last month:

"In some respects perhaps there has never been so discouraging a season as the past one. A few are engaged in bee-keeping for no other purpose than the pleasure they find in it, but a large majority of us have engaged in it because we thought it paid, and have taken up the pursuit with a view to procuring our bread and butter in this way, with the assurance that we should have honey to spare to spread on the same. The past season has taught some of us the lesson that mixed farming is more safe for the majority than specialties. I think that for the past two or three years we have heard less of specialists in bee-keeping, and with my past experience in good and poor seasons, I cannot advise the masses to make bee-keeping a specialty. But in looking over the past year I see much to encourage us. Who ever heard of honey selling at 30 cents per pound and the average price in the United States a trifle over 19 cents in the middle of October? Why, the like has never been since Adam Grim made a fortune keeping bees, but I prophesy that before March 1, there will be localities in the United States where a fancy article of comb honey will bring 50 cents per pound, and the article will never be so scarce that a prime article will not bring one-third more than an inferior one, even though it be gathered from the same blossoms. This teaches us that the profits depend upon the bee-keeper, for if bees will store as much honey in a nail keg, which I very much doubt, it will not bring as much in market as honey stored in beautiful white sections. But this season even the lower grades will be closed out at some price and before another crop comes we will be unable to get honey to make cough sirup for our babies. The past season has established paying prices; it subdued the market and has forever downed that ghost, manufactured honey. Is this not enough to pay us all for our losses? We start in next year with a clean market. There will be a demand everywhere, and it is the duty of every bee-keeper to retain this demand; and this can be done by never sending a pound of honey to the large markets until you have supplied your home and surrounding markets. These you can control, but as soon as you glut the large markets you establish ruinous markets at home. The bees have gone into winter quarters in excellent condition. The fall rains gave us a nice fall flow of honey. Since the season ended, rains have continued and the clover has a fine start for next season's crop."

Two varieties of grain, at least, should be given to the young stock.

By its mild, soothing and healing properties, Dr. Sage's Catarrh Remedy cures the worst cases of nasal catarrh, also "cold in the head," coryza, and catarrhal headaches; 50 cents, by druggists.

If there is anything for which the workmen of to-day, through all their organizations, ought to agitate, it is for the establishment of technical schools, to replace the old wearisome, wasteful apprenticeship, and to elevate the whole mechanical profession; schools in which intellectual and practical instruction shall go hand in hand.

It is a common though mistaken idea that all men and women are fitted for wedlock, and that they cannot embrace it too soon after arriving at maturity. The error is most mischievous, and has ruined the lives of

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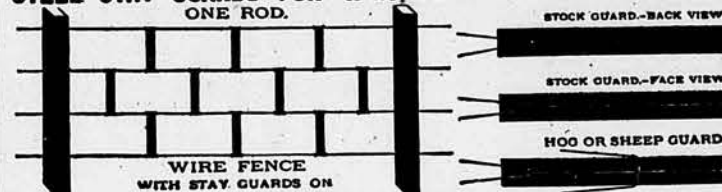
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thousands, who, with proper enlightenment on the subject, might have been as little discontented as are average mortals.

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When the blood is impure, thick, and sluggish, or thin and impoverished, there can be no health. With these conditions all the functions of the body are impaired, and the result is a variety of dangerous complications. The best remedy is Ayer's Sarsaparilla.

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Age brings infirmities, such as sluggish bowels, weak kidneys and bladder and torpid liver.

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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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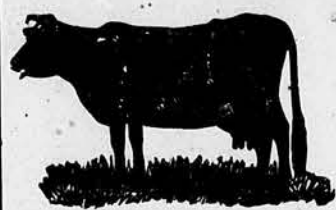
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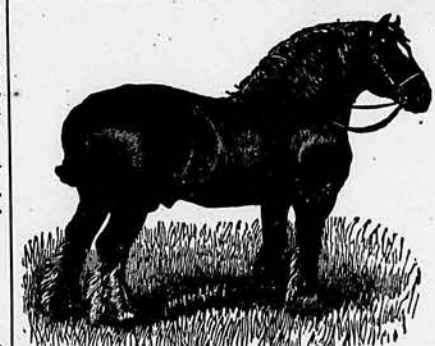
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THE STRAY LIST.

HOW TO POST A STRAY.

THE FEES, FINES AND PENALTIES FOR NOT POSTING.

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

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

Broken animals can be taken up at any time in the year.

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

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

If an animal liable to be taken up, shall come upon the premises of any person, and he fails for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

Any person taking up an estray, must immediately advertise the same by posting three written notices in as many places in the township giving a correct description of 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 go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered; also he shall give a full description of the same and its cash value. He shall also give a bond to the State of double the value of such stray.

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

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

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

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

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

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

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

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

FOR WEEK ENDING DEC'R 20, 1888.

Pottawatomie county—L. D. Hart, clerk.

STEER—Taken up by C. H. E. Daniels, in Louisville tp., December 1, 1888, one red and white steer, 1 year old past, weight about 700 pounds, under-bit and ring in left ear; valued at \$15.

Montgomery county—G. W. Fulmer, clerk.

HEIFER—Taken up by Joseph Wishart, in Caney tp., November 24, 1888, one dark brown heifer, 3 years old, no marks or brands; valued at \$10.

HEIFER—By same, one red and white heifer, 3 years old, no marks or brands; valued at \$10.

HEIFER—By same, one red and white heifer, 3 years old, no marks or brands; valued at \$7.

Labette county—W. J. Millikin, clerk.

COLT—Taken up by Annie Hayden, in Hackberry tp., November 25, 1888, one mare colt, 2 years old, star in forehead, white hind feet, no brands; valued at \$20.

COLT—By same, one dun mare colt, 2 years old, black mane and tail, star in forehead; valued at \$20.

Cloud county—Chas. Proctor, clerk.

MARE—Taken up by Harrison Bates, in Meredith tp., one yellow mare with black mane and tail, branded on left shoulder, supposed to be 6 years old; valued at \$15.

MARE—By same, one yellow mare with white mane and tail, white strip in face, brand on left and right shoulder, supposed to be 5 years old; valued at \$15.

HORSE—By same, one sorrel horse, supposed to be 2 years old, branded on left shoulder; valued at \$10.

HORSE—By same, one bay horse, supposed to be 2 years old, white spot in face, branded on left shoulder; valued at \$10.

Chautauque county—W. F. Wade, clerk.

PONY—Taken up by S. H. Purshall, in Belleville tp., one pony mare, 13 hands high, two white feet, 13 years old, no marks or brands; valued at \$15.

COLT—By same, one sorrel white-faced horse colt, 1 year old, feet all white to knees, no brands; valued at \$15.

STEER—Taken up by J. W. Winnagar, in Salt Creek tp., one red and white 3-year-old steer, no marks or brands; valued at \$15.

Cherokee county—J. C. Atkinson, clerk.

COLT—Taken up by William Anderson, in November 19, 1888, one bay horse colt, 1 year old, small size, white spot on nose, blind in left eye. (P. O. Waco, Mo.)

Anderson county—S. Durall, clerk.

STEER—Taken up by J. N. Caldwell, of Jackson tp., November 8, 1888, one roan yearling steer, silt in each ear; valued at \$12.

Leavenworth county—J. W. Niehaus, clerk.

HEIFER—Taken up by Geo. E. Conrad, in Reno tp., December 1, 1888, one roan heifer, 2 years old, bit out of right ear; valued at \$13.

STEER—Taken up by Emmett Gwattney, in Easton tp., November 15, 1888, one light red steer with white spots on flank and white spot in forehead, 2 years old; valued at \$20.

Chase county—J. S. Stanley, clerk.

COW AND CALF—Taken up by James Austin, in Cottonwood Falls tp., November 26, 1888, one 2-year-old roan cow with red calf, cow has two silts in right and one under-silt in left ear; valued at \$18.

Lyon county—Roland Lakin, clerk.

COW AND CALF—Taken up by J. A. Fowler, in Emporia tp., November 9, 1888, one roan 4-year-old cow, under-bit in right ear, swallow-fork in left ear, left horn broken off; red calf 6 months old; valued at \$20.

STEER—By same, one 2-year-old roan steer, no marks; valued at \$15.

COW—Taken up by John Hammond, in Emporia tp., one 12-year-old cow, yellow and white spots, head inclined to brindle, half of left horn gone; valued at \$12.

COW—Taken up by G. W. Lester, in Agnes City tp., December 7, 1888, one 3-year-old roan cow, branded C. B. on left hip; valued at \$12.

COW—By same, one 3-year-old red and white cow, no marks or brands; valued at \$12.

COW—Taken up by Daniel Richards, in Center tp., P. O. Olpe, one 4-year-old roan cow, branded on right hip and X on right loin, silt in right ear; valued at \$10.

STEER—Taken up by Geo. E. Bodine, in Center tp., P. O. Olpe, November 20, 1888, one red and white yearling steer, branded on right hip; valued at \$12.

COW—Taken up by Tim Conway, in Center tp., November 22, 1888, one roan cow, 6 years old, red neck, indistinguishable brand on left hip; valued at \$14.

STEER—By same, one red yearling steer, some white, silt in left ear; valued at \$12.

STEER—Taken up by H. P. Davis, in Center tp., November 19, 1888, P. O. Emporia, one red yearling steer, part of tail off; valued at \$10.

MARE—Taken up by Marshall Leslie, in Emporia tp., November 12, 1888, one 12-year-old gray Texas mare, thin in flesh, brands unknown; valued at \$25.

Sherman county—O. H. Smith, clerk.

2 COWS—Taken up by Trackell Bros., of Topeka, October 29, 1888, two cows, one white and one red, 3 and 5 years old, both red necks, both have silt in right ear.

2 STEERS—By same, two steers, one 1 and one 2 years old, yearling has silt in right ear, 2-year-old no marks.

HEIFER—By same, one roan 2-year-old heifer, fed neck, right ear silt.

Shawnee county—D. N. Burdge, clerk.

HEIFER—Taken up by S. C. Hedrick, in Monmouth tp., December 3, 1888, one red-roan heifer, 3 years old; valued at \$15.

HORSE—Taken up by W. J. Allen, in Williamsport tp., November 26, 1888, one sorrel horse, 4 years old, white spot in forehead and left hind foot white, harness marks, had on new halter when taken up.

Coffey county—H. B. Cheney, clerk.

STEER—Taken up by Stephen Ogden, in Lincoln tp., one red and white steer, 1 year old, dim brand on left hip; valued at \$12.

Johnson county—W. M. Adams, clerk.

HORSE—Taken up by H. B. Ackley, in Gardner tp., December 1, 1888, one bay horse, 14 hands high, 12 years old, blind in right eye; valued at \$15.

Cowley county—S. J. Smock, clerk.

2 STEERS—Taken up by R. B. Waite, in Vernon tp., November 13, 1888, two red steers; valued at \$15 each.

Crawford county—J. C. Gove, clerk.

MARE—Taken up by G. S. Davison, of Pittsburg, October 31, 1888, one brown mare, 18 hands high, collar marks; valued at \$20.

Davis county—P. V. Trovinger, clerk.

STEER—Taken up by W. R. Wood, in Winfield tp., November 14, 1888, one red yearling steer, white spot in forehead, no marks or brands; valued at \$13.

Miami county—H. A. Floyd, clerk.

COW—Taken up by James Wilson, of Miami tp., P. O. New Lancaster, November 19, 1888, one red-roan cow, 4 years old past, smooth crop off end of right ear; valued at \$14.

FOR WEEK ENDING DEC'R 27, 1888.

Pottawatomie county—L. D. Hart, clerk.

COW—Taken up by E. Constable, in Wamego tp., December 5, 1888, one roan cow, broken horns, bob-tail; valued at \$12.

Osage county—R. H. McClair, clerk.

2 HEIFERS—Taken up by E. D. Lewis, in Arvonia tp., November 30, 1888, two red and white heifers, 2 years old, under-bit in right ear; valued at \$15.

STEER—By same, one red 1-year-old steer, no marks or brands; valued at \$8.

HEIFER—Taken up by A. C. Hall, in Burlingame tp., December 8, 1888, one white heifer, 3 years old, red ears and left horn broken off; valued at \$18.

Chase county—J. S. Stanley, clerk.

HEIFER—Taken up by J. W. Holstinger, in Falls tp., P. O. Cottonwood Falls, December 1, 1888, one dark red 2-year-old heifer, indistinct brand on right hip; valued at \$10.

HORSE—Taken up by Alex Brooks, in Falls tp., P. O. Cottonwood Falls, November 28, 1888, one bay horse, 14 hands high, all feet white, white collar marks on top of neck; valued at \$40.

STEER—Taken up by Pless Fagg, in Bazaar tp., P. O. Matfield Green, December 17, 1888, one 3-year-old dark roan steer, no marks or brands visible; valued at \$25.

STEER—Taken up by R. F. Rigg, in Cedar tp., P. O. Homestead, November 29, 1888, one red yearling steer, white spot on left shoulder, no brands; valued at \$14.

HEIFER—By same, one roan yearling heifer, white on belly and lower part of tail, swallow-fork in left ear; valued at \$10.

Nemaha county—W. E. Young, clerk.

MULE—Taken up by Charles Cameron, in Neuchatel tp., P. O. Neuchatel, December 4, 1888, one dark bay male mule, about 4 feet 5 inches high, about 4 years old, roached mane and tail, had a leather halter on with strap tied around neck and about eighteen inches of strap hanging down; valued at \$20.

COLT—Taken up by W. C. Ford, in Marion tp., P. O. Baileyville, November 30, 1888, one sorrel mare colt, less than 1 year old, blaze on nose, star in forehead, has head halter on; valued at \$13.75.

STEER—Taken up by Alfred Bonjour, in Neuchatel tp., P. O. Neuchatel, November 4, 1888, one red and white spotted 2-year-old steer, white spot in forehead, branded I on right hip, both horns branded F, both ears cut with bits.

Ellis county—M. E. Dixon, clerk.

BOAR—Taken up by Anton Hermann, of Hartsock, October 13, 1888, one black boar, four white feet, between 200 and 300 pounds weight; valued at \$12.

Jackson county—E. E. Birkett, clerk.

PONY—Taken up by W. E. Humphre, in Netawaka tp., November 29, 1888, one sorrel mare pony, 12 years old, 4 feet 8 inches high, star in forehead, white saddle marks.

STEER—Taken up by Andrew Hill, in Franklin tp., November 29, 1888, one 2-year-old red and white steer, crop in right ear; valued at \$25.

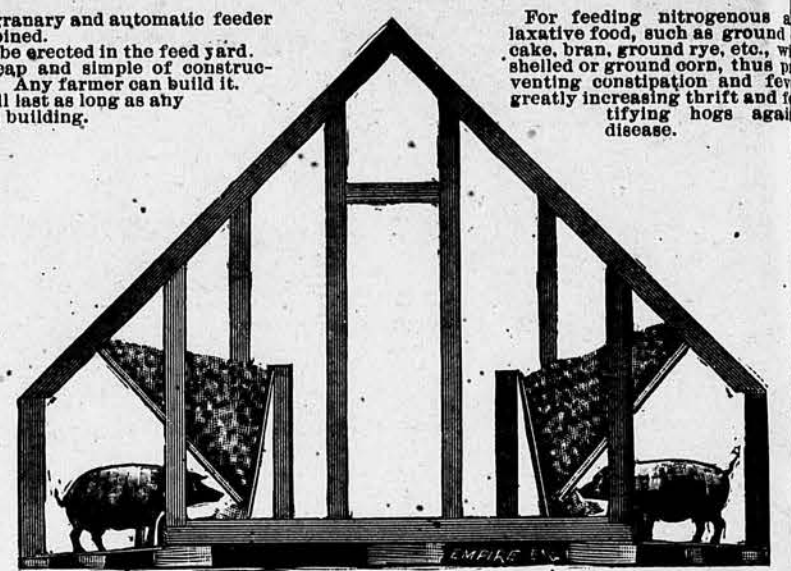
Linn county—Thos. D. Cottle, clerk.

STEER—Taken up by J. Vance, in Scott tp., November 26, 1888, one red and white spotted steer, 2 years old past; valued at \$22.50.

STEER—Taken up by H. G. Butcher, in Blue Mound tp., November 17, 1888, one red steer, short 2

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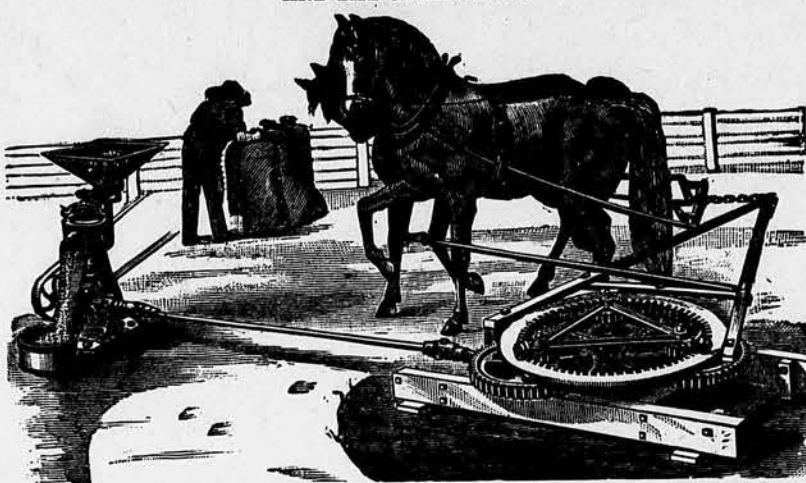


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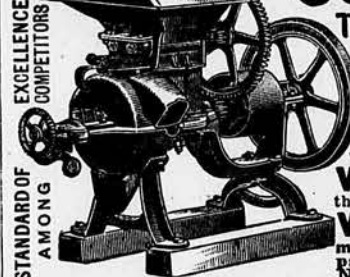
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WANTED—Printing Matter, for Trees, Plants and Shrubs, exchange. H. H. Kern, Bonner Springs, Kas.

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FOR SALE—Pure Plymouth Rock cockerels. Plymouth Rocks exclusively. W. W. Gunn, Hardy, Neb.

BATES BULL FOR SALE.—Barrington Walnut Lad No. 72,685; color red. Calved June 19, 1885; weight 2,600. A show bull and sire of show calves. Also choice bulls and helpers of fashionable families. Address James M. Freeman, Huntingdale, Henry Co., Mo.

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WANTED, AT ONCE.—I will give 10 per cent. interest for use of \$500 for from one to two years time. Good security. Address "Horace," care of KANSAS FARMER, Topeka, Kas.

FOR SALE—At \$1 each, if two or more are taken at one time, Light Brahmas, Buff Cochins and Barred Plymouth Rock cockerels. Also a few White Plymouth Rock cockerels at \$2 each. All pure stock and of the best blood in existence. Will exchange a breeding pen of Barred Plymouth Rocks or Buff Cochins for a pen of S. C. White Leghorns. Must be first-class. M. F. Tatman, Rossville, Kas.

WANTED, 500 COMMON PIGEONS.—Will pay 15 cents per pair. Address J. G. Hewitt, Tenth St. E., Topeka.

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STRAYED OR STOLEN.—\$25 for the recovery of a dark chestnut sorrel mare colt, white spot in forehead, large bushy tail; had halter on. Robt. Gula, Paxico, Kas.

TO EXCHANGE—A good stock of livery in Topeka for stock cattle. Address "W," Kansas Farmer, Topeka.

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TWO-CENT COLUMN--(Continued.)

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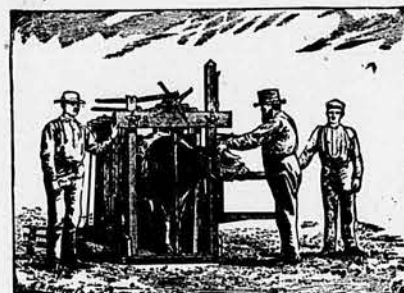
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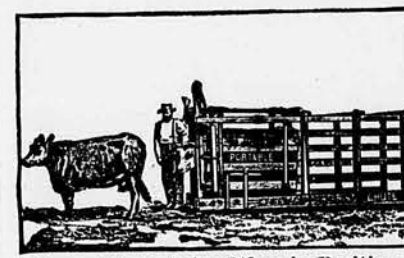
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