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THE KANSAS FARMER.

HUDSON & EWING, Editors and Proprietors
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Timber Culture.

VERY IMPORTANT RULING OF THE SECRETARY
OF THE INTERIOR.

The Secretary of the Interior has evolved out of the depths of his profound wisdom the startling fact that "timber" as defined by the timber culture law does not include cottonwood. This will be regarded as a singular ruling of the Secretary, in this western country, where cottonwood is the most important timber tree grown. To be sure we do not use the cottonwood to build ships, not having use for them on the prairies, but it is used for fencing, for fuel, for furniture, for buildings, etc. It is the tree natural to all the prairie country, and grows to an enormous size in the bottoms, and is altogether one of the most useful timber trees grown in the west. If the cottonwood is to be ruled out, the timber law is little less than a sham and a delusion. But before the settlers are deprived of their timber claims we hope to see a man at the head of the interior department, possessing more practical knowledge, more judgment, and less theory than the present incumbent.

The following is the ruling referred to:

"By the third section of the act of June 14, 1878, a party applying for the benefits of said act is required to make oath 'that the section of land specified in my said application is composed exclusively of prairie lands, or other lands devoid of timber.' You have construed this clause to mean that lands located in a section containing trees of any kind were excluded from entry. In this, I think you erred. Timber is defined to be 'that kind of wood which is proper for buildings or for tools, utensils, furniture, carriages, fences, ships, and the like. The act says, that the section in which an entry is made must be devoid entire of timber, but it does not say that it must be devoid of trees, nor do I think the language used will warrant the construction that all trees are to be regarded as timber for there are several varieties of small trees such as willow and the like, out of which timber cannot be manufactured. The true intention of the act I think, was that the section of land in which an entry is made for the cultivation of timber, should be naturally devoid of timber trees such as pine, oak, ash, maple, elm, walnut, hickory and other timber trees. I do not think, however, that it was the intention of congress that any entries should be allowed of lands containing growing timber trees of any of the above varieties; for the purpose of the act was to encourage the cultivation of timber trees, and if that class of trees are growing naturally on the land the object of the law makers would be accomplished by natural means, and there will be no necessity for recourse to artificial cultivation. Where a section of land contains a few cottonwood trees scattered along the banks of a stream of water, I do not think it should be excluded from entry. The cottonwood belongs to the poplar varieties, and while the necessities of the settlers may sometimes compel them to use it as timber, it is not properly a timber tree, the species to which it belongs being of a rapid growth, soft wood and generally used for ornamental purposes.

The timber culture act of March 3, 1873, and the act of March 13, 1864, contained no provisions relative to the character of the lands which were allowed to be entered, but both of such acts allowed the commissioner of the general land office to make such rules and regulations consistent therewith as were necessary to carry their provisions into effect. Under the authority thus given, a form of affidavit was prescribed by your office by which the applicant was required to swear—that the section of land specified in my said application is composed exclusively of prairie lands devoid of timber." The only difference between the language of this regulation and that contained in the act of June 14, 1878, is that the word "naturally" is left out of the act of congress, and the words "or other lands" is added. The obvious intention of both of these requirements is the same, viz: that such lands only as were naturally devoid of timber should be allowed to be entered, and I do not think that in the construction of the statute there should be a wide departure from the construction on the former regulation of your office.

After a careful consideration of the question presented, I am of the opinion that where a section of land contains any pine, oak, ash, elm, maple, walnut, hickory or other natural timber

as, an entry for the cultivation of timber should not be permitted, as such section cannot be considered as devoid of timber under a reasonable construction of the law.

Very Respectfully,
A. BELL, Acting Secretary.

To Com. Gen. Land Office.

Sub-Earth Ventilation for Hospitals.

By request of the editor of the *Medical and Surgical Journal*, published at Philadelphia, Pa., we find the following in that journal from the pen of Prof. Wilkinson.

"My system of ventilation, the symbols of which are S. E. V., was first given to the public in 1874. Its use was, however, mainly confined to milk-houses for a period of two years, in which field it is very profitable and popular. It has since been applied to a variety of purposes, and has fully met the requirements in all cases. The characteristics developed in its use, for tempering and purifying the air of dwellings, have been seen and carefully investigated by numerous intelligent medical gentlemen, and all emphatically assert the opinion that 'for hospital purposes it is apparently peerless.'"

The characteristics of S. E. V. are—

1st. An unlimited volume of atmospheric air may be perpetually supplied to a building, or any number of apartments, at a uniform temperature of about 50° above zero, Fahr.: i. e., by a properly arranged duct, placed at a proper depth below the surface of the earth, say about twelve feet, and about 350 in length, and with a transverse section in proportion to the volume of air to be transmitted in a given time, moving at the rate of about one hundred linear feet per minute, any amount of air required may be transmitted, tempered, purified and delivered.

2d. The air passed through a subterranean duct is found to be peculiarly affected hygro-metrically. Carefully conducted experiments, in the use of reliable instruments, have demonstrated the following facts:—

When the ducts are laid in the virgin soil of rural district, and they are constructed with an earth bottom, as I construct them, and, if the soil of the bottom of the trench in which the duct is to be constructed is other than clay, it is surfaced with it a few inches in depth, the air from such ducts is superlatively pure; in fact, it is rarely found in nature of an equal degree of purity.

These ducts are found to possess the quality of alternately absorbing from, and giving off moisture to, air passed through them, by which an equable hygro-metric condition in the air is maintained. It has been found that when the exterior atmosphere is saturated with moisture, or is at the dew point, air, while being cooled in its passage through the duct, is deprived of its moisture so as to show a difference of from four to five degrees between the wet and the dry bulb thermometers of the psychrometer, the dry bulb showing 61°, in an insulated apartment, and the wet bulb 57°. This experiment was made when the exterior atmosphere was 65° and the wet bulb thermometer showed 65°, indicating that the air was charged to its fullest capacity with moisture.

Again, when the external air was 80°, and there were several degrees difference between the wet and dry bulbs, indicating extreme dryness of the air, the relative difference of four to five degrees was maintained in the building, as indicated by the psychrometer.

The two results, obtained with reliable instruments, under such opposite hygro-metric conditions of the atmosphere, prove the positive ability of the subterranean air duct to produce and maintain in the air it supplies an equable hygro-metric condition, an all essential factor among the numerous hygienic requirements of a hospital.

3d. Another remarkable characteristic of this system is the established fact, that by passing air through an earth duct, artistically arranged, an electrical condition which often obtains during the warm season, which precipitates ferments, and produces premature acidification in milk set for creaming, and a condensation in the milk so dense that it mechanically prevents cream from rising, occasioning a loss of millions of dollars annually, is entirely averted. This loss occurs at a time when the air is in a condition called "muggy," and when electric discharges are frequent and violent, and all breathing animals evince great languor. When the thermal and electrical conditions of the atmosphere described prevail externally, that of an isolated apartment, sub-earth ventilated, is as dry, bracing and buoyant as nature's best.

A device capable of developing and maintaining in the atmosphere the characteristics

described cannot but be invaluable, in a sanitary point of view. No other means has ever been devised by ventilating engineers by which such results have been secured, and such adaptability of the atmosphere for human occupancy, especially for the use of persons who are demented or physically abnormal.

What's Ahead?

The following editorial which we copy entire from the *Prairie Farmer*, is but a fair specimen of what we meet with in almost every agricultural paper we take up. While the commercial papers play fast and loose, and regale their readers with fresh batches of news and party political effusions every morning, the agricultural press we believe without exception, are attacking the abuses of the country which grind and tax industry with greater burdens than any tax-gatherer ever enforced, and rallying the agricultural classes to unite and cure these abominations, and establish the governments, state and national, on sure foundations of justice and economy. It is useless to call upon the wrong-doers to halt. Call the people together to halt them. This is the only practical way to a permanent cure:

"The trunk-line managers of railroads leading east from Chicago are reported as having given notice of a further advance in freights. It is to be five cents additional per hundred pounds, and to take effect November 10th. This will make the rate on grain 40 cents, on provisions 45 cents, on flour 80 cents and on cattle 65 cents per 100 pounds. The rate on grain is double what it was a year ago. The effect, as we have heretofore stated, will be that farmers will hold their surplus grain until spring. They can afford to do so. On provisions, flour and live stock this cannot be done. They must go forward. Just here is where the milk in the cocoanut lies. These pooling magnates think they see a chance, and seem also inclined to turn the screws to the last thread. Will they then rivet the bolt so it will stick? No. There is a point beyond which endurance ceases to be a virtue. Railways have had heretofore some experience in unfriendly legislation. If they will not be warned by the past, they may not complain if the scales turn on them again. The next time, legislation will be national legislation, and the people once thoroughly aroused, railways cannot sweep congress with a golden broom. The people have the power, once they choose to enforce it, and organization will surely come, if this attempt to grind out exorbitant charges is persisted in.

Railways are not alone—the same thing is seen in other directions. With an immense supply of coal in Chicago, the coal dealers suddenly, and during the prevalence of continued warm weather, put up the price of coal \$1 per ton, and again this week gave it another hoist. It is true coal had hitherto been low, and those who had money took advantage of it to lay in their winter supply. The coal dealers are a clique of certain large firms, who supply retail dealers, and who also retail themselves. They alone reap the profits of this monopolistic way of doing business. Will they have cause to complain if disaster should overtake them in their greedy effort to distress the poor—who must keep warm? Have they any more right to demand undue profits than workmen who strike? It is difficult, sometimes, to manage masses of men smarting under extortion. They sometimes rebel, and take the law into their own hands. Then the military power steps in and quells them, and very properly, too.

But, is there no power to step in between the people and capitalists, who grind out their great fortunes from the blood and sweat of the masses? Yes, if the people combine thoughtfully and earnestly for this purpose. But, say the monopolists, they do not know how. True, and so much the worse for the monopolists, when they learn the true business interests of the country. But, again, they are slowly being learned. When a peaceful and potent solution of such questions do come about, we say again, let not the money kings make a wry face—they will not hold the sympathy of the people. We give this monopolizing and grinding class, wherever they may be, warning. Farmers and shippers, consumers and workers of every degree—the real wealth-making power of the country—may be obliged to submit for a time. Gold may be made to rule our legislatures, and congress; subservient tools of the monopolists, may labor for their benefit. There is a point beyond which they must not go. That is the concentrated will of the people. Let them act as a unit, and class legislation may be swept away as dust before a strong wind. With it may go watered railway and other stock, and various fictitious values, under the cover of which so-

called capitalists have grown, in a comparatively few years, to count their gains away up into the scores of millions each. Does anybody believe that such sums can be legitimately piled up from nothing, in a score or two of years? If not, what is to prevent such legislation as will wrest the fictitious sums from them? It would be a great way toward paying the national debt—a debt gradually being paid by the toil of the laboring masses almost solely, and susceptible of easy proof. Do these extortionists want to be made to feel the real power of the people? If so let them pursue their present course and see what will become of it."

Sour Wood.

Prof. J. P. Stelle, of Mobile, Ala., furnishes the *Indiana Farmer* the following information of the above tree:

This tree, the *Oxydendrum arboreum*, of botanists, is well worthy the interest that members of the *Farmer* family seem to have been taking in it of late. It grows to the height of from forty to sixty feet, and while young it grows with great rapidity, taking upon itself a close and very pretty habit for an ornamental tree. Its leaves are deciduous, though their thick and glossy green character gives the tree very much the appearance of some of our broad leaf evergreens, as the laurel cherry, for instance, or the orange. Shape of leaves somewhat like those of the common peach—a little wider and not quite so long. Flowers are white, on long, one-sided racemes, clustered in a loose panicle at the ends of the branches. They are rather pretty though they would not be considered especially showy. While the tree is yet young, the bark is smooth and of a cinnamon-brown color, but when older and well grown, the bark becomes darker and rough, very much resembling the rough bark of the persimmon.

The wood of the tree under consideration, is white and quite hard, taking polish very well. Exposed to the weather it is rather less durable than the wood of most species of oak.

In point of medical properties this tree possesses some value. In the lower southern states a tea of the leaves is often employed in fevers as a cooling drink. It is allowed to cool previous to administering, when it is given as one would give lemonade, which, in its pleasant sub-acid taste, it somewhat resembles. The leaves are also chewed to allay thirst.

But the greatest value of the "sour wood" lies, perhaps, in its extraordinary virtues as a honey plant. It is far superior in this particular to the Linden, *Tilia Americana*, and, in fact, to anything else we have in the southern states. A good authority estimates that four thousand pounds of honey might be made in one season from a single acre set to "sour wood."

As to the range of this growth, it is wider than is generally supposed. I have seen it growing perfectly hardy in latitudes considerably above Indianapolis, and I do not doubt but that it would be hardy in Michigan. Why it is so much restricted, naturally, I cannot tell, but I suppose it is mainly due to a want of the most favorable kind of soil—it seems to like a rather thin and comparatively broken land the best. It is undoubtedly a tree entirely worthy of extended test, and the interest manifested with reference to it in late issue of the *Farmer*, has induced me to have a few bushels of seed gathered for the benefit of all concerned. It grows readily from seed, and so long as my supply holds out, I shall take pleasure in having a small package sent free to any person desirous of testing it, who will send a stamp with which to pay return postage.

Why Dead Branches Should be Removed.

If we take a dead and dry stick, say an inch or two thick, soak it thoroughly with water, and expose it to the full sun of a warm summer day, in a few hours it will be found that the moisture is all gone, and the stick is as dry as ever. Take a living branch of the same size, cut it from its parent tree, expose it side by side with the other, but though it will at once begin to shrink there will be some moisture left for several days to come. There is still some vital power left in the tree, and vital power resists evaporation. So in the winter time, a sudden burst of sunshine will raise the steam from a dead corn-stalk that may have been soaked by snow, and the stalk will soon feel warm; while a live green yucca leaf, or a branch of an evergreen is still cold as ever, and emits no steam. The vital power is equal to maintaining the plant's even temperature, whatever it may be, and simply throws off the water after the vital power has no more use for it.

Now the one who knows this, knows just how to manage a tree that has been injured by frost,

or by transplanting. He never allows a twig or branch that is probably going to die, or is actually dead, to remain on the tree, because it helps to kill the living parts of the tree by evaporation. A living branch does not lose much water by evaporation, but a dead one does; and while it is draining the tree of its juices and throwing into the atmosphere just what the living ones need so long as it remains on. So if he plant a tree at this season, and has the remotest idea that the twigs or top shoots will be killed he does not wait for the event, but cuts them off at once. Thousands of trees are saved every year by the one who knows this little of botany, while hundreds of thousands die every year under the hands of those who think they can raise potatoes or grow apple trees without "botherin' their heads about this stuff."—*Gardener's Monthly*.

What the Professors Say.

It is a consideration, of no small weight in favor of agricultural colleges that they exercise the body as well as the mind; that they encourage healthy, out-door labor, while, at the same time, they afford instruction in the ordinary branches of science and literature, thus blending intellectual and physical culture.—*Prof. Walters*.

Good manners are not only valuable in promoting the happiness of those with whom we associate, but they gain for us the favorable opinion of others. Every one likes to obtain the respect of others, and in no surer way can he do this than by genuine politeness. This trait of character has, also, a money value; for, if one is truly polite, he is more likely to receive a situation or to retain one at better wages than he could do if he lacked this quality. Let us then cultivate good manners; and, especially, let us not fail to show a proper respect to the Creator of all things, as our great [superior.—*Prof. Platt*.

Grace Young 4th, one of the Short-horn cows belonging to the College herd, is quite a remarkable animal. We have had occasion several times in the past to notice some of her superior qualities. This time she comes to the front as an example of what the tame grasses are capable of doing as exclusive food for stock. Grace has eaten no grain for over a year, but has been kept on the grass in the meadow, or on the hay in the manger. Yesterday she was placed upon the scales and tipped the beam at just 1,705 pounds. This is an argument for the Short-horn as well as the tame grasses.—*Industrius*.

The Cruelty Practiced by Shippers of Live-Stock.

On the subject of the cruelty practiced by the shippers of live-stock, Mr. Zadoc Street said at a meeting of the American Humane Association, recently assembled at Chicago, that he had seen at a station in Kansas, large, fine-looking fat cattle, which the owner expected to sell for exportation, that had been confined in small pens for three days and nights continuously, exposed to the hot sun without feed or water. The man in charge of them said he had just received a dispatch from the owner to ship them to St. Louis without giving them feed or water; and he stated that after they arrived in St. Louis he could get one hundred pounds of water into each one before they were sold or weighed. The weather was extremely warm, and the drivers forced nineteen of these large cattle into each car.

In order to accomplish this, they pounded and punched them with poles, each having a sharp nail in its head, until the blood would run. This man claimed, too, to be an old shipper; said that he had shipped thousands of cattle, and that it did not hurt them in the least to go without feed or water for four days in succession, even if the weather was very hot. Mr. Street further remarked that no experienced shipper would allow cattle to have feed or water for twenty-four hours before shipping them. A large number of other shippers said they never allowed their cattle to have feed or water for at least twenty-four hours before loading them into the cars. I can see cattle would not incline to lie down if kept hungry and thirsty. Many pens were so crowded that there was no space for the cattle to lie down for rest, and in their state of torment the larger animals hooked and gored the smaller ones.

"Eye-glasses make a young man look like an idiot." "Quite true," replied Grandfather Lickeshingle, "but nine young men out of ten who wear 'em would look like idiots anyway. So where's the harm?"

Farm Stock.

Hog Breeding and Feeding.

With our general good crop of corn in the west, there is an active interest in hogs. The very low prices ruling, makes it of the utmost importance to look well to the breeding and feeding, for herein lies the profit. The breeding may be of any of the established breeds, according to taste or preference, the nearer full blood the breeding sows the better, but the breeding boar should always be a full blood of some of the established breeds, and the breeding boars should frequently be changed, fresh blood gives constitutional vigor and stamina, health and thrift. We are inclined to think that much of the disease among our hogs, is from too much inbreeding. Experienced breeders find the best hogs are produced from a sow and boar from two to five years old, a sow should never have pigs until one year old, or she will be stunted in her growth; pigs should stay with the mother until six or eight weeks old. Keep the hogs on grass for a healthy growth in spring, summer and fall, with vegetables and roots in winter; keep them in warm clean quarters in winter, their bedding should be changed every day or two.

FOR FATTENING HOGS.

With the present small margin for profit more care must be given to this important interest, usually the corn is shoveled into a pen, perhaps muddy or perhaps dry, not even clean water for the hogs to drink and these hogs are literally burned up with corn, and if they begin to die the balance are hurried off to market. Give your fattening hogs a clean pen, feed on a floor or trough out of the mud. Corn is our main feed for fattening hogs, but there is a consistency in all things. Give them every week if not all the time some ground feed and if cooked all the better, a mixture of ground oats is healthy and cooling. Our most progressive feeders are feeding largely on ground feed and most of them are cooking their feed, either or both are a great saving in feed and give better returns of more rapid fattening; keep a good supply of pure clean water, give salt and ashes often, charcoal is also healthy and often greedily eaten, the best way to give it is to char a pile of corn on the cob and let them eat it, this burnt corn is by many considered a good remedy for hog cholera.—*Western Agriculturist.*

Spring or Fall Calves.

It is a question if a spring calf or a fall calf is the better to raise. This depends altogether upon the manner in which the calf is cared for. For the dairy, under equal conditions, a fall calf is better than a spring calf, for it can be brought through the winter in good order, and put at once upon pasture in the spring, when a little bran or ground feed will help it to thrive quickly, and arrive at a condition for breeding in time to come in, in the spring, at the age of 28 months; or, if desired for a winter cow, at the age of two years, or considerably more, when she comes in, under similar circumstances. This is one important consideration. Another scarcely less so, is that a spring calf can derive very little or no advantage from the summer pasture, and thus requires feeding through two winters before it comes into profit. Again, winter dairying is far more profitable than summer, and to have fresh cows in October or November, makes them available for this more profitable business; so that, on the whole, fall calves may be considered more profitable than those of the spring.

As the winter weather is not favorable to the growth of young animals, extra care must be taken in rearing fall calves. A good start is a great point, and this may be made by leaving the calf with the dam for two or three days, after which a warm, sheltered pen should be provided for it, adjoining a box-stall, in which the dam may be kept so long as may be convenient. Here it may be fed upon skimmed milk, warmed to a temperature of 80 or 90 degrees, after a week's feeding upon the fresh, warm milk just drawn from the cow. For the dairy, no oil-meal is necessary; but for other purposes, an ounce of linseed oil-meal will be useful, added to the milk; first, however, boiling the meal, and reducing it to a thin macilage, (flax seed will answer the same purpose). When two months old, the calf will eat a small quantity of hay, but we have found it better to cut the hay, and add the allowance of meal to it. A young calf is not able to digest a large quantity of solid food, and a pint of cut hay, with one ounce of meal, will be ample as a beginning. By gradually increasing the allowance, the calf will gain regularly, and may go out to grass in the spring.—*American Agriculturist.*

Food for Horses.

On this subject, Prof. G. C. Caldwell furnishes an interesting article to the New York Tribune. The most important fact made prominent by the Professor's essay is the value of a mixture, or variety of food. Corn and wheat bran are pronounced a better and more wholesome feed for horses than oats alone, as the concentrated part of the animal's ration. So oats and corn ground together and mixed with chopped, or cut straw, slightly dampened, is found to be one of the best feeds for horses. The soft, starchy gourd seed varieties of corn are superior to the hard, flinty kinds grown in northern latitudes where the summers are short. In traveling south, when the line is reached below which oats cannot be cultivated with profit, the corn is found to be much lighter than, and superior to, northern corn as food for men as well as horses. In California barley is the main grain food for horses, and is placed at the head of all grains as horse feed. Grain ground,

whether oats, corn or barley, any one or all three of them combined, and mixed with wheat bran and fed with clean cut straw, will be found to be the most wholesome food for horses; much better than hay. Rye straw cut fine and mixed with ground grain has been used as feed for stage horses in preference to timothy hay and with the best results both in promoting health and imparting vigor to the animals. On this important subject, Prof. Caldwell says,

The most economical ration for the horse includes always some form of concentrated fodder, such as oats, Indian corn or other grain, to supplement the hay; although, taking the country through, oats may have the preference, it is a well established fact that corn is equally serviceable, if not better. As long ago as 1864, Magne, the eminent French veterinarian, called attention to the value of corn as a substitute for oats, in noticing the fact that the horses of the French army in Mexico in 1862-'63 were kept in excellent condition on corn and bran in the place of oats. In 1873, Mr. Church, general manager of the London Omnibus Company, in the course of testimony before a committee of Parliament, stated that his company had entirely discarded the use of oats, the daily ration of their animals consisting of 17 pounds of corn meal and 10 pounds of chaff, and that the horses thrived on this better than they ever did on oats. In the *Journal d'Agriculture Pratique* for the present year it is stated that the Omnibus Company of the City of Rouen has substituted corn for oats for its horses, with excellent results, both as to economy, and the health and vigor of the animals; the daily ration now consists of 17½ pounds of corn, 9 pounds of hay, and 6½ pounds of straw; it is found to be better to cook the corn, or instead of that it may be mixed with bran. In 1876, 6½ pounds of corn meal and 11 pounds of oats were substituted for 18½ pounds of oats in the ration of the horses of the Paris Omnibus Company; the horses maintained their good condition and did their work as well as before, although they were not quite so lively. The company saved 420,000 francs that year by the change, owing to the low price of corn and the high price of oats. A writer in *The Country Gentleman*, giving the experience of one who had the care of horse railroad stables for several years in this country, stated that the best ration had been found to consist of bran and corn meal in equal proportions, together with equal weights of hay and straw cut and thoroughly moistened. In some cases the corn is fed on the ear, and it is claimed by those who follow this practice that if the ears are soaked till they feel soft to the hand, fully one-third less grain will be required.

The use of straw with hay for the coarse fodder is very common in the best practice. Many English farmers feed no hay at all to their horses, but keep them in good working condition on straw, roots and shorts. In some recent experiments by E. Wolff and others on the digestibility of chopped straw, mixed with the oats and hay, it appeared that the horse extracted comparatively little nutriment from the straw, except when the ration contained but little hay and a large proportion of oats. In respect to the mixed ration as a whole, the digestion of the albuminoids and non-nitrogenous extractive matters (carbohydrates, etc.) was as complete by the horse as by the sheep; but the fat, and crude fibre were digested to a much smaller extent by the horse. Only a few digestion experiments have been made with the horse, as compared with the work that has been done with the other domestic animals, and no very safe conclusions can be drawn from the results thus far obtained; but it appears to be shown that so far as concentrated fodder, roots, good hay or green fodder are concerned, the digestive capacity of this animal is equally as great as that of ruminants, but that with respect to straw or other coarse fodder, and especially the more difficult digestible portion of such materials, the crude fibre—its assimilative power is less; hence it would not be good economy to put much straw or poor hay into the ration of the horse, provided that there are other farm animals to consume it.

The use of other grains, roots and oil-cake, is practiced to a comparatively small extent, at least where horses are fed in large numbers. Barley makes an excellent fodder for horses, and we have no doubt that the friends of temperance will heartily endorse, and perhaps hereafter follow, the practice of an agricultural editor, who sold his oats and fed his barley to his horses, so as to prevent the use of the latter for making liquor. A writer in a recent English paper states that oats and beans make the best food "for putting muscular flesh on a horse," while horses that are fed on corn become fat and slow; beans supply from two to three times as much digestible albuminoids as either oats or corn.

There seems to be some show of reason for this opinion that the proportion of albuminoids is too small in corn; instead of beans, oil-cake might be used for an additional supply of albuminoids; it is, however, but little richer in digestible matter of this kind than beans, and moreover, contains more fat, of which we have already a liberal proportion in corn or oats. A moderate quantity of oil-cake meal may, nevertheless, often be used to advantage, especially where the horses are not allowed to run to grass; it favors the shedding of old hair, and gives the coat a handsome, glossy appearance. As to roots, parsnips appear to rank first in value for horses; it is stated that in some parts of France this root is even substituted for oats, forty pounds being given in the daily ration; the horses maintain a good condition, and the parsnips cost only a fourth as much as oats. This quantity of parsnips would, according to recent analyses, contain as much albuminoids as twenty-one pounds of oats.

What a Thoroughbred Bull is Worth.

At the Bow Park sale of Short-horns at Dexter Park last week, the superb imported bull Oxford Duke 30th was withdrawn, the announcement having been previously made that no bid under a thousand dollars could be received. And this circumstance suggested the inquiry to a by-stander whether this, or any other thoroughbred bull was worth one thousand dollars to any farmer or breeder.

Let us look at this question a moment. It is hardly to be supposed that an animal like his Oxford Duke would be purchased by any save a breeder who had made a high reputation for his herd, or who is laboring to do so. This class of breeders always buy the best they can afford. They understand that the bull is half the herd when it comes to breeding. They have learned that the better their young things—and, indeed, all of their offering—are bred, the more readily they sell, at good prices; and they know, too, that a few injudicious crosses will injure their business and compel them (if we may use the expression) "to take a back seat." Therefore breeders who expect and desire to secure or retain prominence as such, are of necessity forced to breed only from good bulls.

While we do not advocate or defend enormously long prices for thoroughbred animals, no person of ordinary intelligence will deny that they represent a value far above that of the ordinary or common stock of the country, and much greater even than improved stock indiscriminately bred. It is not necessary to our present purpose, however, to show the reasons for this condition of things; to a well posted breeder they are patent; and our object now is in another direction. At Dexter Park the other day the average price obtained for fifteen thoroughbred bulls sold, was \$305. Three of these brought \$500, \$540, and \$600 respectively. It may be that an ordinary farmer cannot afford to pay such prices for thoroughbred stock. These bulls were purchased by breeders of thoroughbred Short-horns, and they will doubtless make the purchases pay for themselves many times over within a few years, in disposing of the get of the animals. But at these prices, farmers generally make money in the improvement of their common stock by such an infusion of improved blood. We do not overlook the fact, however, that quite as much depends upon the man as on the bull. One farmer would make money with such an animal while another would lose. It is admitted by all who have any knowledge worth having of raising cattle, that a good bull of an improved breed, the offspring of a sire and a dam of pure lineage, may be relied on for producing good calves even from inferior cows. The constitutional vigor and prepotency of the sire is stamped upon his offspring. His blood is in it; it carries and shows, in a large degree, the characteristics he possesses. A grazer who knows a good calf at sight will pay for the year-old progeny of such a bull from five to ten dollars more than for a scrub; at two years old twenty-five to thirty dollars, and perhaps more, will represent the difference in their value. Any one can discover that the stock sired by such a bull, if properly cared for, is worth nearly or quite double, at three years old, what natives or scrubs are at that age, descended from the non-descript bulls that run the highways or are used in some neighborhoods.

Let us take one of the bulls sold the other day—a yearling past, the Duke of Sharon 6th—and see what may be done by his service. Before he is two years old he can without injury give twenty-five calves; the next year fifty, and every year after that, seventy-five calves. In three years a farmer with as many cows as this bull could attend, would possess from his service one hundred and fifty of his get, and if these animals were each worth (as they would be) twenty-five dollars more than scrubs, a simple arithmetical calculation shows that the bull has put into the pocket of his owner the snug sum of \$3,750. He has been worth that sum in three years, over the sum that the same number of common cattle would bring. If that does not pay, what does? Here is \$3,750 in three years for an investment of \$600, and this, too, by crossing on common cows. Suppose that such an animal were used on a few choice thoroughbred cows during the time. The purchased offspring would largely increase the profits realized from his service. But the price we have named is higher than other thoroughbreds can have had for; considerably higher in fact than other very good bulls sold for at the same sale, because he was of the Rose of Sharon family. A very fine Wild Eyes bull one year old last June, sold for \$275—one of the best young bulls in the sale, and of a very popular family. When farmers can buy such animals for this sum of money—animals freely bred and of great individual merit—there is no room to find fault with prices.—*American Stockman.*

Apiary.

Moving and Wintering Bees.

At the Bee-Keepers Association which assembled at Chicago on the 21st ult., the following opinions were expressed on the above subjects. In the discussion upon moving bees, N. P. Allen, of Kentucky, advocated driving them out, and turning into new hives when only to be removed a short distance. In moving considerable distances, the frames should be made stationary by wedging, and the hives carried on springs so as to jar as little as possible. Mr. Bingham said bees may be moved any distance without injury at the season when the honey-gathering has ceased.

Mr. Charles Dadant, of Illinois, reported that they move at any time, for any distance, by simply placing a board over the entrance. Mr. Winslow coincided and said that even when bees were first set out of the cellar the board would cause them to mark the entrance, and all would return to the hive although it was not on the old stand.

Mr. H. H. Felch, of Pennsylvania, in a paper on Wintering Bees, stated the following conditions as necessary: Abundance of bees, a good queen, plenty of good sealed honey, a frame of the proper size and shape, proper number of combs, passage-ways for the bees to pass from one side of brood-chamber to the other, protection for bees so as to keep dry and warm, and not feel sudden changes of temperature. In elucidation of this he said:

A goodly number of bees are necessary to produce the requisite warmth. A small colony can not generate enough warmth in the hive during a cold spell in winter, and will suffer with the best protection. A good vigorous queen, capable of laying at a maximum rate is needed to keep up the desired strength of the colony and for vigorous spring breeding. From thirty to forty pounds of honey should be in the combs above and rearward of the cluster the first of October, less would do to winter, but spring breeding would certainly be retarded. If bees have an abundance of sealed honey during spring, breeding goes on apace, whether the weather is favorable for honey-gathering or not. A colony having only enough to barely winter, has but little brood when the weather opens in the spring.

The size and shape of frame has much to do with successful wintering. A square comb will not do well, as the honey is too much scattered, unless the frame is small, like the "American," and then we must use too many combs. A comb twice as high as long is good for winter, but will not do for surplus. If we use more combs than the bees can cover at the end they cluster, and the chances are that the colony will suffer considerably, and will in many cases starve.

Bees must have protection from sudden changes of temperature, and be well guarded against cold and the collection of moisture within the hive. If this is done, bees will be comfortable, and will not fly out until the air is sufficiently warm for them to return, and we can bid adieu to dysentery and "spring dwindling."

In relation to wintering bees in cellars, there was much diversity of opinion, and no definite conclusion was arrived at as to its advantages over wintering outside, with due protection.

Poultry.

Poultry and Poultry Breeding.

When the hens are to do the hatching they need to be removed to the "sitting" room. This should be done at night. Move the hen carefully and quietly and put her on the nest with dummy eggs for a few days until she is sitting steadily. The French use turkeys and do not wait for them to be "broody," but make them drunk with a wineglassful of spirits when they are wanted for use. An ordinary-sized turkey will cover twenty eggs and may be used for several lots of eggs.

Incubators and artificial mothers, however, have been brought to such a state of perfection that it seems folly to cling to the old method. The saving comes from the avoidance of loss by breakage, ly hens leaving the nest or trampling the half-hatched chicks to death. Moreover, the incubator and brooder are always ready for use and save the time of hens, which can be devoted to laying. In both the natural and artificial method it is necessary to full success that the eggs receive a daily airing.

As the chicks hatch, remove them from the nest as fast as dry, and cover them with some warm material until ready to put them out. Here is where the brooder artificial mother comes into play. The chicks may be taken from the hen or the incubator, and put into the brooder, where, by means of a small lamp, they are kept warm and dry, and receive all the brooding they need—more than with the hen for the brooder is always ready to hover them, while the hen is not.

The young chicks need no food for the first twenty-four hours. After that they should be fed plentifully and often. At first give them the yolks of hard-boiled eggs, chopped or crumbled fine. After the second day, mix coarse corn meal and wheat bran, equal parts, and scald it. When two weeks old, begin feeding cracked corn or wheat for their night food. In addition to this, they may be given occasional feeds of boiled rice, small potatoes boiled and mashed and mixed with a little corn or barley meal, bread crumbs and stale bread steeped in milk or water; in fact, all the scraps from the table should be saved and given to them. Green food—cabbage chopped fine, onions, ditto, celery tops and, best of all, lettuce—is highly relished and should be fed to them often. To give delicacy to the flesh of the chicks designed for the table, make their principal feed, for a week or ten days before killing, barley-meal moistened with milk, and occasionally alternate with Indian meal.

The greatest profit in raising chickens must come by getting them fit for market at the earliest possible age. The average cost of hatching and raising chickens (I speak now of doing so by artificial means) until they are eight weeks old, is not over fifteen cents each. At this age they should weigh from one and a half to two pounds. The cost for the next two months will be more than doubled, while the increase in weight will not be over fifty per cent. It follows, therefore, that the most of

the profit comes from the first two months' care and feeding. Broilers at that age will sell in April and May, in our large cities, at from 75 cents to \$1 per pair, and sometimes as high as \$1.50.

QUESTIONS AND ANSWERS.

Among the questions most often asked me are the following: Are the chicks as healthy under the care of the artificial mother, as under the natural parent? Answer—More so, and especially because they escape the lice pest which always attacks chickens soon after they are hatched. Question—Are artificially hatched chickens likely to have gapes and chicken cholera? A. After careful examination and experiment I am satisfied they are not. Q. Is it necessary to be very careful in handling eggs? A. No; not as careful as we are apt to think. Jolting does no harm, though a sudden jar which separates the inner connection with the shell, does. Q. Is it good to wet food long before feeding? Yes. Unless wet long enough before feeding to allow it to swell, it will distend the crop, and is apt to cause sickness and sometimes death. I always prefer to cook food for chickens and all stock, and believe in the practice most heartily. Q. Is cistern water injurious to fowls? A. Not if pure. Q. Is it a good plan to put pepper in food? A. I don't believe in stimulants of any kind, or in any of the condiments and artificial foods in vogue. Good wholesome food, fed often, is best, and helps most to force the six weeks' broilers, in the sale of which lies the profit of poultry raising. The question about gapes and cholera was put to me because it seemed that the artificial method would prevent the spread of such contagions. As to the tick and gape worm Dr. Law thinks it not unlikely that the gape worm lives in a parasite state in the abdomen of the tick, and he gives an instance of a similar case in a certain species of a tape-worm common in dogs.—A. M. Halstead, in *Rural New-Yorker*.

Another Cure for Chicken Cholera.

A correspondent, in the *Prairie Farmer*, gives the following heroic treatment for chicken cholera:

"In March I purchased a lot of Brahmas, intending to dress for market, but a serious attack of sickness in the family put an end to all work not strictly necessary, and the fowls were turned into a yard containing one hundred Plymouth Rock breeders. In the course of a week three of the Brahmas died, within an hour of each other, of what I call cholera, and several others were attacked, the disease spreading into my room for setters. Here was trouble, sure enough. I adopted, what physicians term, 'heroic treatment,' which means, as I understand it, 'kill or cure.' I caught every fowl afflicted, and administered half a teaspoonful of cayenne pepper, dry, right down their throats. It caused some 'ground and lofty tumbling,' but it did the work. In a few cases the dose had to be repeated, but in only a few. This, with copious water, was the only remedy used, save a thorough disinfecting of all the yards and buildings. I lost but the three first mentioned, and, upon inquiry, found that the party selling to me had lost the balance of his flock with the same disease."

Horticulture.

How to Manage Cuttings.

In selecting a cutting, if the slip is too young and full of fresh sap, it will fade away from too much evaporation; if it is too old—hard and woody—it will take a great while for it to strike root.

You must take a cutting that is perfectly ripened and is from a vigorous shoot, yet a little hardened at the base.

It is also essential to have a bud or joint at or near the end of the cutting; as all roots strike from it, and the nearer it is to the base, the greater your chance of success.

Plant your cuttings in common red pots, filled half full of rich loam and two inches of sand on top (scouring sand will do, but not sea sand); wet this thoroughly, and put the cuttings close around the edge of the pot, for if the bud or joint come in contact with the surface of the pot, it seems to strike root more quickly. Pull off the lower leaves before you plant the cuttings. Press the wet sand tightly about the tiny stem, for a great deal of your success in raising the cutting depends upon the close contact of the sand with the stem. When the cuttings are firmly planted, cover them with a glass shade if possible, as it will greatly promote the growth of the plant.

Moisture, light and heat are the three essentials to plant life—without them no cuttings will start.

Shade for two or three days from the sunlight, but don't let the sand become dry; then give all the sun you can obtain, keep up a good supply of moisture, and you can hardly fail to root most of your cuttings.

Hozekiah Fair, Adamsboro, Ind., reports that as the heads of his 4,000 cabbage plants began to form, they were attacked by the cabbage worm and the entire crop was threatened with destruction. He scattered wheat screenings on each plant and turned his chickens into the field. In searching for the scattered grain the chickens discovered the worms, cleared the patch of them, and Mr. Fair now has 3,000 fine sound heads for market.—R. B.

Hogs fatten much more rapidly before cold weather comes, than after. More attention to keeping their feeding places dry, and their sleeping pens comfortable would save feed and hasten the fattening process.

The Sorghum Interest.

Just now the excitement in sorghum is at fever heat among the pioneers of molasses, and sugar manufacturing from the various kinds of this class of cane. Mr. I. A. Hedges, of St. Louis, seems to be the head centre of this business and is using a great deal of commendable zeal and activity in imparting instruction and encouraging those who are embarking in the business, which seems to be quite extensive, and in a fair way to increase, as improved methods of managing the cane and syrup are developed. The following communication by Mr. Hedges, of a visit to one of his patrons, published in the *Rural World* will serve to give some idea of the extent of this new interest in the west.

"I found Mr. Schwarz in a transposition state, i. e., his sugar mill. Unexpected to himself, but not to me, his many neighbors have so far inundated him with late cane that his horse power mill, though a large one, was impotent to do half of his work. Hence he was just substituting a second-hand steam power mill, to be propelled by a ten-horse portable engine; and may yet have to assist his fire train with steam defecating or finishing pan. This is a year of experiment on all sides, as much with machinery as with canes and processes. I look for a great showing on this subject at our annual meeting. Mr. Schwarz has, at least, 200 tons of cane in his yard, and several neighborhoods to hear from (as the reports of election go). I was much gratified to find the cane in such good condition as it is, after such hot weather. Most of it had been cut many days, and the husk on the stalk, being dry and brown, gives the cane an unfavorable appearance; but upon cutting and close inspection, very little souring could be found. This, however, is mainly due to the fact that there has been no frost to affect the cane. Even in his fields of first cutting of Early Amber, there is a fine growth of young cane that would afford, at least, three tons per acre green fodder of the best quality. It is a misfortune for us that Mr. Schwarz is so crowded with work, as it prevents him from making all the tests of sugar making with the late canes, viz.: Liberian and Honduras. The latter is yet quite fresh and green, though the seed is ripe. It will prove a good cane for the more southern latitudes. Stalks are large and hard, with a clear, white pith and pleasant, sweet juice of 10° B. On Mr. Belcher's return from the north, he will favor us with some more polarization tests of this cane, and other samples of sugar and syrup, with a view to glean all facts possible, prior to our meeting.

I have received a sample of cane from Mr. Wagoner of Independence, Kansas, that is a monster, of oval shape, two inches by one and a half, partly hollow and very little sweet; it is evidently a cross with broom corn and grown in low, rich soil. It is not worth growing.

Winter squash is not only more nutritious and palatable than pumpkins for one's own table, but also to feed to stock. We have given up raising the latter on this account, and only cultivate the former. It is true we do not get so large a quantity of winter squash per acre as of pumpkins; but it is so much less watery, and so much more nutritious, the better quality more than compensates for the lesser quantity. The moment they begin to ripen one ought to commence feeding them, as animals derive greater nourishment from them in mild weather, rather than in cold. October and November are probably the best months to feed them; if delayed until December, and they get frozen, they will do animals little good. It is much more difficult to keep pumpkins and squashes than roots, for they cannot be buried in the ground for preservation like them, and stored in a cellar, or any warm place, they are apt to rot fast. We have kept them longest and best in winter, piled on the barn floor or hay loft, covered thickly with straw or coarse hay.—B., in N. Y. Tribune.

Patrons of Husbandry.

NATIONAL GRANGE.—Master: Samuel E. Adams, of Minnesota; Secretary: Wm. M. Ireland, Washington, D. C.; Treasurer: F. M. McDowell, Wayne, N. Y. EXECUTIVE COMMITTEE.—Henry James, of Indiana; D. W. Aiken, of South Carolina; S. H. Ellis, of Ohio. KANSAS STATE GRANGE.—Master: Wm. M. Ireland, Topeka; Secretary: J. P. Maxson, Emporia; Treasurer: W. P. Poppeno, Topeka; Lecturer: J. H. Martin, Mound Creek, Miami county. EXECUTIVE COMMITTEE.—W. H. Jones, Holton, Jackson county; Levi Dumbauld, Hartford, Lyon county; J. S. Payne, Cadmus, Linn county. COUNTY DEPUTIES.—J. T. Stevens, Lawrence, Douglas county; T. B. Myers, Beaty, Marshall county; B. B. Powell, Augusta, Butler county; C. F. Morse, Milo, Lincoln county; A. J. Pope, Wichita, Sedgewick county; A. P. Readon, Jefferson Co., Post Office, Dimond, Leavenworth county; S. W. Day, Ottawa, Franklin county; G. A. Hovey, Belleville, Republic county; J. E. Barrett, Greenleaf, Washington county; W. W. Cone, Topeka, Shawnee county; J. McComas, Holton, Jackson county; Charles Disbrow, Clay Centre, Clay county; Frank B. Smith, Rush Centre, Rush county; G. M. Summerville, McPherson, McPherson county; J. S. Payne, Cadmus, Linn county; Charles Wyeth, Minneapolis, Ottawa county; F. M. Wierman, "Milledred, Morris county; John Andrews, Huron, Atchison county; George F. Jackson, Fredonia, Wilson county; D. C. Spurgeon, Leroy, Coffey county; James W. Williams, Peabody, Marion county; R. T. Ewalt, Great Bend, Barton county; C. S. Worley, Eureka, Greegwood county; James McCormick, Burr Oak, Jewell county; L. M. E. Ewing, Fairbairn, Anderson county; D. P. Clark, Kirwin, Phillips county; George Fell, Larned, Pawnee county; A. Huff, Salt City, Sumner county; James Faulkner, Iola, Allen county; W. J. Ellis, "Miami county; George Amy, Glendale, Bourbon county; W. D. Covington, Smith county; P. O. Kirwin, "H. Chandler, Rose, Woodson county; E. F. Williams, Erie, Neosho county; J. O. Vanoradall, Winfield, Cowley county; George W. Black, Olathe, Johnson county; W. J. Campbell, Red Stone, Cloud county; John G. Berg, "Pawnee county; I. S. Fleck, Bunker Hill, "Pawnee county; W. D. Sterling, Rice county; W. D. Rippling, Severance, Doniphan county; Arthur Sharp, Girard, Crawford county; P. B. Maxson, Emporia, Lyon county; A. M. Meyer, Hunnerville, "Pawnee county; N. Wood, Cottonwood Falls, Chase county; G. S. Kneeland, Keeno, Wabancose county.

TO OFFICERS OF SUBORDINATE GRANGES. For the use of Subordinate Granges we have a set of receipt and order books which will prevent accounts getting mixed up or confused. They are: 1st, Receipts for Dues, 2nd, Secretary's Receipts, and 3d, Orders on Treasurer. The set will be sent to any address, postage paid for \$1.00.

We solicit from Patrons, communications regarding the Order, Notices of New Elections, Feasts, Installations and a description of all subjects of general or special interest to Patrons.

What the Grange Is, Or Ought to Be.

If any of our readers have ever attended the meetings of the State Board of Agriculture they have a thorough knowledge of how much good, effectual work can be accomplished by means of lectures and free discussions. Now, we ask, if so much "good, effectual work" can be accomplished in such a simple way, why not manage the grange in like manner? The grange is—or ought to be—a first-class farmers' club, where farmers and their wives should have free and unlimited license to say that which will be for the good of the agricultural community in general; certainly we mean that they should be there as Patrons and Matrons, and that the stated meetings should be conducted in accordance with the Ritual and our Declaration of Purposes.

But aside from the formal sessions of the grange there should, at one meeting of a subordinate grange each month, be some sort of an intellectual feast, to which members and non-members should be invited, to whom the promised bread should not be denied by the offer of a stone. Herein lies, deep-rooted, the success of organizations like the grange. Its associations should be enlarged; invitations, cordial and hearty, should be extended to farmers not connected with the order to come and enjoy at least the "wheaten loaf of intellectual culture." Such a course, legitimately pursued, would undoubtedly lead to such attentive interest that ere long the meetings of the grange would be what all good Patrons and Matrons most desire them to be. There would be no lack of interest; co-operation would be there as a safeguard against a return to dormancy or lukewarmness. For the want of some such substantial feast many subordinate granges have died; have folded their mantles about them and laid down in the silent tomb of forgetfulness. To such might be dedicated the appropriate epitaph, "Died of nothing to do."—*Farmer's Friend*.

The Grange Meets a National Want.

Organizations which are national in their character, or which have far-reaching and general wants to supply, are not made, they simply grow. Necessity stimulates invention; pressing wants are always on the lookout for relief. What in the first instance may have been suggested as an expedient—a partial remedy, a plan to accomplish a single definite purpose, may contain the germ of an organization or institution co-extensive with the nation. The history of the country is full of illustrations of this fact. The grange is an instance. The founders probably had no conception of its rapid and extensive growth. They clearly saw one of the wide spread wants of the farmer, national in its importance, and bearing upon the well-being, prosperity and independence of the tiller of the soil in the future. We mean the absence of social intercourse. The causes of this did not lie wholly in the desire to accumulate money or property; though this undoubtedly had something to do with it. A hundred years ago three-fourths of the population lived in the country. To-day more than one-half live in the cities. The residue of the current century will largely give the cities the preponderance in population. This reversal of the relative populations of the country, may become, and in the absence of a true and wise patriotism on the part of the rural districts, will become of the gravest importance to the future of the Republic. But we have not to deal with this now. Other changes have also been going on, bearing directly on the customs and manners of the nation. Within the time of a single generation, changes have taken place which were thought impossible. Within the memory of men now living, whose market was governed within a radius of forty or fifty miles, and the products of whose farms were bartered for salt, and fish, and molasses, and the commodities which entered into the household economies, the markets of the world have been thrown open; space and time have been well nigh annihilated, and the money of the world has taken the place of barter. But these changes have also had their influences in other respects. They have produced artificial wants—the insane desire to be suddenly rich, and with these an isolation hostile to the husbandman's truest interests. The country felt the danger and the want. There was an instinctive appreciation of the changed conditions, and when the tree cared for with so much interest took root, its branches cast their shade and bore fruit in nearly all the states and territories. Not the least valuable of this is the breaking up of the isolation of neighborhoods. The kindly influences have not been restricted to the membership of the grange. Farmers not identified with the Order have been brought within the better influences, and through this genial power, agriculture has received an impulse and the agriculturist a vantage ground, unattainable only through an organization commensurate with the want and the national limits.—*Grange Bulletin*.

"Farmers' Clubs—Their Advantages, and How to Improve Them."

[Extracts from an essay read before the Greens Farms Club, at its meeting, October 21, 1879, by J. H. Sherwood.]

It was a saying of Washington that "agriculture was the most healthful, most useful, and most noble employment of man."

As to the healthfulness and usefulness, there can be no dispute. But I think I hear some one whispering that they do not see where the nobleness is found in a farmer's life. We can hardly think by this, that Washington meant the labor of the farmer, for labor is labor, in

any occupation. Undoubtedly he meant that thought and study, applied to the culture of the soil was what made it the most noble, as great scope and variety are really necessary in our researches and experiments, which lead us to success as agriculturists.

To attain to this true nobility we should use every available means at our command, prominent among which are organizations called "Farmers' Clubs," the object of which, like our annual fairs, should be the acquirement and dissemination of knowledge useful in our business, as farmers. Farmers, as a class of men, the keepers of home, not noted for their sociability, are judged by their works rather than words. As a help to overcome our deficiencies, these meetings of practical farmers, to discuss and interchange our ideas, for our mutual improvement, cannot be otherwise than advantageous. By attending such gatherings we become more social and friendly, are induced to communicate something to sustain the interest of the club and from others valuable hints which become useful in our pursuits, as farmers. No small advantage of our meetings of this kind, is the drawing in of the young men, and I am happy to note that we have quite a number of them belonging to our club; and I hope they will take part in the discussions and write essays on the different subjects brought before the club.

It will give them confidence to express their ideas or thoughts in public, improving themselves as well as others, and helping to overcome that bashfulness which afflicts some young men, and many old ones.

There is another way in which the club may be of great advantage to its members. As "in multitude of counselors there is wisdom," combining together to make purchases of articles used by all, we obtain our fertilizers and manure by the quantity, get a percentage off by turning our trade in one direction or another, and in various ways clubs can be turned to good account.

"Many men of many minds," and all possessing some good ideas, and these interchanged will draw out others, thereby increasing information to our advantage.—*Connecticut Farmer*.

The National Grange meeting, to be held in Canandaigua next month, may exert important influence in the adjustment of questions affecting the welfare of the vast membership which it will represent. There is growing recognition of the great magnitude of the industry in which the grange is founded, and the time is therefore propitious for wise consideration of the means by which the disabilities placed upon it may be removed. It is evident, to all persons who take unprejudiced views of the situation, that the enormous production that has lifted all business from the depressed condition following the collapse, popularly called the hard times, cannot be maintained unless the artificial restrictions that have fretted and chafed tillers of the soil be torn away, thus allowing their industry to expand, with no other limit than healthful demand for its products in every market they may enter by the cheapest transportation. Great crops will not stimulate farmers to continued effort after they see that, by one device or another, the profits of production are hopelessly diverted from them, whether by unjust taxation or by the greed of carriers. Wholesome division of rewards is essential to the full development of that business prosperity which is now plainly visible, and to which the contributions of agriculture have been munificent. It must be borne in mind that of the enormous sum that stands as the credit balance of this country, \$1,000,000,000 in the last six years, agriculture has contributed nearly \$800,000,000. This has been done, too, while prices have ruled, most of the time, extremely low. It has come through a necessity which farmers, for the time, were powerless to modify. They have worked through all the long period of depression with less direct profit than during the previous years when general business was active, not referring especially to the period of inflation, but rather to steadier currents that preceded the late war. They have not been unmindful of the discriminations against their industry, but in obedience to the necessities of the times they have put forth noble efforts to create a sure foundation for lasting prosperity, and have now the encouragement of success resulting from their labor, while their share of the reward, may be, in the future, commensurate with the steady and unyielding efforts they have directed to the grand attainment. It rests with them to say what place their industry may hold in the economy of affairs, provided only that they demand nothing more than its just due. This fact has been slowly expanding to their vision until they now see clearly the necessity of intelligent action on their part tending to the emancipation of agriculture from the domination of wrongs fastened upon it by law, or by custom.

To this work the National Grange will devote thought and direct its efforts. The body will comprise the most able leaders in the order gathered from nearly all the states in the union. They will meet with full understanding of the tasks to be executed, although they cannot expect to remove all difficulties in the way of speedy accomplishment of the purposes that animate every earnest member of the body. With the lapse of time the grange has grown in wisdom, doubtless. It has finished its chase of follies and is ready to apply its efforts directly to the real work for which the organization was founded. It is quite apparent, now, that ripe thought expended on the problems indicated above will have far more beneficial effect than punctilious delineation of ritualistic orders; hence the hope that the approaching session will mark grand progress in the true work of the order.—*The Husbandman*.

New Advertisements.

Our readers, in replying to advertisements in the Farmer, will do us a favor if they will state in their letters to advertisers that they saw the advertisement in the Kansas Farmer.

Shannon Hill Stock Farm

Thoroughbred Short-Horn Cattle and Berkshire Pigs, bred and for sale. Only first-class animals allowed to leave the farm. Address G. W. GLICK, Atchison, Kansas.

4,000 Sheep for Sale.

These sheep are sold on account of the poor health of the owner. They are coarse woolled sheep crossed with full blooded Merino and Cotswolds. Sheep ranch 12 miles northwest of Topeka. Address A. M. CARPENTER, North Topeka, Kansas.

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ALBERT CRANE, BREEDER OF

Short-Horn Cattle

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Catalogues free. The largest and best herds in the west. Over 200 head of cattle, and like number of pigs. Prices Low. Address letters to DURHAM PARK, Marion County, Kansas.



The Creek Valley Farm herd of

BERKSHIRES,

the largest herd of thoroughbred Berkshires in the west, consisting of 340 head as fine as are to be found anywhere. 155 summer pigs sired by the two grand boars, Stockwell (brother to Royal Hopewell) and Wrangler 2nd, (2357). Would say to Patrons and others that I now have a grand lot of pigs. Can please the most exacting. Prices always in reason. Address SOLOM ROGERS, Prairie Centre, Johnson Co., Kas.

HOGS.

Southern Kansas Swine Farm.

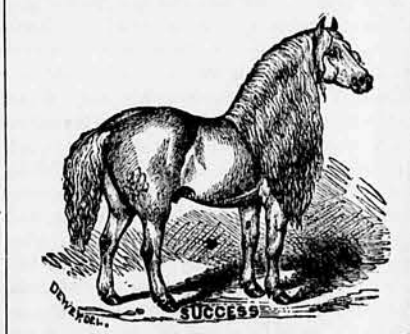
THOROUGHbred POLAND-CHINAS and BERKSHIRE Pigs and Hogs for sale. The very best of each breed. Early maturity, large growth, and fine style are marked features of our hogs. Terms reasonable. Correspondence solicited. RANDOLPH & PAYNE, Emporia, Kansas.

M. W. DUNHAM

Has Just Imported 36 Head

FOR HIS OAKLAWN STUD OF

PERCHERON-NORMAN HORSES.



Largest and most complete establishment of the kind in the world.

More than 200 Stallions & Mares,

Imported from best stud stables of France.

Winners of First Prizes in Europe and America. Awarded First Prizes and Gold Medals at the Universal Exposition at Paris, 1876. First Prizes and Grand Medals at Centennial Exhibition, 1876. The public appreciation of its merits is indicated by the great demand for stock from every part of the country. During the past twelve months, the provinces of New Brunswick, Canada, and the states of New York, Pennsylvania, Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Nebraska, Kansas, Texas, Louisiana, Colorado, California, Nevada and Oregon and Utah; Washington and Idaho Territories have drawn supplies from its stables. 100 page Catalogue—finest thing of the kind ever issued, 25 pictures of stallions and mares, sent free on application. M. W. DUNHAM, Wayne, DuPage Co., Ill.

22-N. B. All imported and pure native bred animals recorded in Percheron-Norman Stud Book.



STOCK FARMS

I have for sale a number of farms of 100 to 1000 acres and more, in Montgomery, Paul, Taylor and Adams counties, Iowa. Many of them have been fitted up expressly for stock farming. Some of them are largely in tame grass, have good fences and hedges, and enough of them. This section of north-west Iowa is claimed to be better adapted to stock raising than any other portion of the country. Lands as well improved and equally or more productive, better adapted to grass and stock, are cheaper here than in the older stock-growing sections. I have two elegant tracts, splendidly improved, of more than 1000 acres each, at less than \$25 per acre. I have farms ranging all the way from 40 to 1325 acres, at from \$7 to \$25 per acre. Come and see me. G. D. BAKER, Villisca, Iowa. P. S. A flouring mill, elevator and grain business for sale at a bargain.

Breeder's Directory.

G. B. BOTHWELL, Breckenridge, Mo., breeder of Spanish or Improved American Merino sheep of Hammond stock, noted for hardiness and heavy fleece. 200 rams for sale.

L. A. KNAPP, Dover, Shawnee Co., Kas., breeder of Pure Short-Horn Cattle, and Berkshire Pigs.

C. S. EICHLITZ, Breeder of Short-Horns, Berkshires and Bronze Turkeys, Wichita, Kansas.

JOSHUA FRY, Dover, Shawnee county, Kansas, breeder of the best strains of Imported English Berkshire Hogs. A choice lot of pigs from 2 to 8 months old for sale. Prices to suit the times. Correspondence solicited.

D. W. H. H. GUNDIFF, Pleasant Hill, Cass Co. Mo., breeder of thoroughbred Short-Horn Cattle, of fashionable strains. The bull at the head of the herd weighs 3000 pounds. Choice bulls and heifers for sale. Correspondence solicited.

HALL BROS., Ann Arbor, Mich., make a specialty of breeding the choicest strains of Poland-Ch Suffolk, Essex and Berkshire Pigs. Present prices less than last card rates. Satisfaction guaranteed. A few splendid pigs, jills and boars now ready.

Nurserymen's Directory.

THE KANSAS HOME NURSERIES offer a superior and large variety of trees for Western Planters, all the standard and choice varieties of Apples, Peaches, Cherries, Pears, Plums and Quinces. Small Fruits, Vines, Shrubbery, and Ornamental Trees. No. 1 Apple Seedlings. Prices to all applicants. Send stamp for samples. A. H. & H. C. GILES, Lawrence, Kansas.

J. E. SUMMIT and BELTON NURSERIES, Fruit Trees of the best, and cheapest. Apple Trees and Hedge Plants a specialty. Address ROBT. WATSON, Lee's Summit, Jackson Co., Mo.

A. WHITCOMB, Florist, Lawrence, Kansas. Catalogue of Greenhouse and Budding Plants sent free.

MIAMI COUNTY NURSERIES, 11th year, large stock, good assortment; stock first class. Osage hedge plants and Apple trees at lowest rates by car load. Wholesale and retail price lists sent free on application. E. F. CADWALLADER, Louisburg, Kas.

Physician.

MRS. DEBORA K. LONGSTORE, M. D. Office west side of Harrison St., 1st door south of Sixth St.

HENRI LANNE, M. D., Physician, Surgeon and Dentist, Topeka, Kansas. Office in City Building, corner Kansas Avenue and Seventh streets.

Dentist.

A. H. THOMPSON, D. D. S., Operative and Surgeon Dentist, No. 180 Kansas Avenue, Topeka, Kansas.

TEETH extracted without pain, by Nitrous Oxide gas, or by the use of the STILES' Extractor. Rooms, over Funk's Clothing Store, Topeka, Kansas.

WOOL-GROWERS

Can rely upon immunity from contagious disease in their flocks after use of LADD'S TOBACCO SHEEP WASH. GUARANTEED an immediate cure for scab and prevention of infection by that terror to flockmasters. GUARANTEED to more than repay the cost of application by increased growth of wool. GUARANTEED to improve the texture of the fleece instead of injury to it as is the result of the use of other compounds. GUARANTEED to destroy vermin on the animal and prevent a return. GUARANTEED to be the most effective, cheap and safe remedy ever offered to American Wool-growers. No flock-master should be without it. I have the most undoubted testimonials corroborative of above. Send for circular and address orders to W. M. LADD, 21 N. Main St., St. Louis, Mo.

THE CENTRAL KANSAS

BREEDERS ASSOCIATION,

Offer FOR SALE,

As good Short-Horn Cattle, Berkshire and Poland China swine as can be found in the West. All orders should be sent to the Secretary of the Association. The Executive Committee of the Society will take such orders and send selections and made that cannot fail to give satisfaction, to the purchasers.

A. W. ROLLINS, Secretary Kansas Central Breeders Association, Manhattan, Kansas.

American Berkshire

RECORD.

Notice is hereby given that entries in Volume IV of the Record will close December 1, 1879. For entry blanks or further information address PHIL M. SPRINGER, Sec., Court House Square, Springfield, Ill.

Kansas Pacific

Railway.

Lands! Lands!

KANSAS TO THE FRONT!

The Leading Wheat State in the Union

in 1878 and the Fourth Corn State—The Great Kansas Harvest of 1878 was Sold for the Golden Belt.

The celebrated Grand Belt of country, in the time-honored section of Central Kansas, traversed by the Kansas Pacific.

The following statements are taken from the report of the Kansas State Board of Agriculture for 1878:

WHEAT! Kansas rises from the Elevator! The Fourth Corn State in 1877 to the FIRST WHEAT STATE in the Union in 1878, producing 26,618,958 bushels winter wheat, and 5,796,403 bushels spring wheat; total, 32,315,361

Bushels of wheat, with only one-eighth of the state under cultivation. The organized counties lying in the Golden Wheat Belt, of the Kansas Pacific produced 13,335,324 bushels, or over 41 per cent, and including unreporting counties, fully 14,000,000 bushels, or 45 per cent, of the entire yield of wheat in the state, averaging 24 bushels to the acre, while the average for the state was 17 bushels per acre.

CORN!

Kansas, the Fourth Corn State in the Union in 1878, produced 59,000,000 bushels of corn, of which the Golden Grain counties produced 27,299,056 bushels, or 31 per cent, nearly one-third of the entire yield of the state, and nearly equal, grand showing in all other departments of agriculture.

The following facts show conclusively why the use of population in the State is increasing, and the ease in population during the

increased acreage of wheat in the Golden Belt.

A FARMER IN KANSAS—62,500 farms—5,000,000 acres—of which Kansas Pacific—the Best Land in America, at \$20 to \$25 per acre—one quarter off for cash, or 10 to 11 years credit at 7 per cent. interest. It is a chance money to buy a farm on the Kansas Pacific: \$20 to \$25 to secure 50 acres on credit, or \$120 to \$200 in cash will buy it outright.

Send 10¢ to J. J. Gilmore, Land Commissioner, Salina, Kas., for the Kansas Pacific Homestead, a publication that tells about Lands, Homesteads, Pre-emption, Soil, Product, Climate, Stock Raising, Schools, Wages, Land Dealers' Tickets, Rates, etc. It is mailed free to all applicants. Read it, you can gather about Kansas, and when you decide to start, be sure and start right by locating along the KANSAS PACIFIC RAILWAY. T. F. OAKES, Gen'l Superintend. ent.

A prominent physician of Pittsburgh said jokingly to a lady patient who was complaining of her continued ill health and of his inability to cure her, "Try Hop Bitters!" The lady took it in earnest and used the Bitters, from which she obtained permanent health. She now laughs at the doctor for his joke, but he is not so well pleased with it, and it cost him a good patient.

The Greatest Blessing.

A simple, pure, harmless remedy, that cures every time, and prevents disease by keeping the blood pure, stomach regular, kidneys and liver active, is the greatest blessing ever conferred upon man. Hop Bitters is that remedy, and its proprietors are being blessed by thousands who have been saved and cured by it. Will you try it? See another column.

Given Up By Doctors.

"Is it possible that Mr. Godfrey is up and at work, and cured by so simple a remedy?" "I assure you it is true that he is entirely cured, and with nothing but Hop Bitters; and only ten days ago his doctors gave him up and said he must die!" "Well-a-day! That is remarkable! I will go this day and get some for my poor George—I know hops are good."

Water Supply.

A drouth like the one now prevailing, brings the question of water supply vividly to the attention of every man of a family. Cisterns fail and will not do. Everybody needs a good well, and with the employment of Brockett's Well Auger and Drills, he can have one made in the quickest possible time. Any live man will find it a most profitable investment to buy one of these augers and put down some of the hundreds of wells which are needed in every county. Catalogues and prices will be sent free by addressing C. A. BROCKETT & CO., Kansas City, Mo.

To Suffering Woman!

Dr. Livingston's Abdominal Support, a sure cure for anteversion, retroversion, retroflexion and prolapsus. Send for illustrated descriptive circulars on uterine diseases and complications. The only comfortable and effective support ever designed for these diseases. Obviates all difficulties and dispenses with all private examinations. Address Dr. C. E. Livingston, 215 Superior street, Toledo, O.

Louisville Cement.

The popularity of this superior brand of Cement is too well known to need comment. We merely desire to call the attention of dealers to the fact that the Louisville Association have an agency at Kansas City, from which place dealers throughout this section can have their orders filled promptly, in car lots, at manufacturers' lowest prices. We also make but slight additional charge in job lots, and have special low freight rates in lots of twenty-five barrels and upwards. We also handle at wholesale Michigan, Iowa and New York Plaster Paris, Hannibal Lime, Fire Clay, etc.; also manufacture Drain Pipe—all sizes—Chimney Flues, Well Tubing, etc. Quotations furnished with pleasure. Address C. A. BROCKETT, Agent, Kansas City, Mo.

THE SECRET KEY TO HEALTH.—The Science of Life, or Self-Preservation, 300 pages. Price, only \$1. Contains fifty valuable prescriptions, either one of which is worth more than ten times the price of the book. Illustrated sample sent on receipt of 6 cents for postage. Address Dr. W. H. Parker, 4 Bulfinch street, Boston, Mass.

Cash paid for choice butter at Ripley's.

8 and 9
Eight and nine per cent. interest on farm loans in Shawnee county.
Ten per cent. on city property.
All good bonds bought at sight.
For ready money and low interest, call on A. PRESCOTT & CO.

Chew Jackson's best Sweet Navy tobacco.

Sheep Wanted.

The subscriber desires to secure from some party a flock of from 500 to 1,000 sheep to keep on shares. Have plenty of feed, shelter and water.
J. A. BLAKBURN,
Great Bend, Barton Co., Kansas.

The above party I know to be reliable and thoroughly acquainted with the care and breeding of sheep. He has had large experience in the business east and west.
J. K. HUDSON, Topeka, Kansas.

Fifty cents will buy the Marsh Ague Cure—liquid or pills. It cures the worst cases of Tertian, or Third Day Ague, and all forms of chills and fever. Never known to fail. Try it. For sale by all druggists.

A Sample Bottle Free!

Marsh's Golden Balsam, the great throat and lung medicine, cures coughs, colds, croup, whooping cough, hoarseness, sore throat, bronchitis and consumption. Try it. Sample bottle free. Regular sizes 50 cents and \$1. For sale by all prominent druggists.

Advertising Cheats.

It has become so common to write the beginning of an elegant, interesting article and then run it into some advertisement that we avoid all such cheats and simply call attention to the merits of Hop Bitters in as plain honest terms as possible, to induce people to give them one trial, as no one who knows their value will ever use anything else.

The Receipt

for the Gilt-Edge Butter Maker was obtained from one of the most extensive dairy farmers of Ireland, noted for the excellent and superior keeping qualities of his butter, which was eagerly purchased by London dealers for export to India, where the warm climate puts butter to a very severe test. It has been thoroughly tried by a large number of the very best butter-makers in this country, and they have given it their emphatic approval. Price 25 cents per package. Sold by all storekeepers.

COLLINS, N. Y., Feb. 19, 1879.
GENTLEMEN: We churned one gallon of cream to day at a temperature of 56 degrees, using your Gilt-Edge Butter Maker. Time of churning, 15 minutes—result, 4 1-8 pounds of butter. Color, good. As we have not previously weighed our butter, of course we cannot tell whether there is a better per cent. or not, but appearances indicate it, and the quality is at least two cents per pound better. Yours, etc.
M. E. WILBUR,
Proprietor of Collins Creamery.

Bilious persons should avoid the use of coffee, and nervous persons the use of tea. An agreeable and healthful substitute is found in Cocoa. Walter Baker & Co.'s Chocolate and Cocoa preparations are highly recommended by the medical faculty, and are sold by all grocers.

PRESCRIPTION FREE

For the speedy cure of Seminal Weakness, Loss of Manhood, and all disorders brought on by indiscretion or excess. Any Druggist has the ingredients. Address DAVIDSON & CO., 78 Nassau St., N. Y.

Markets.

Topeka Leather Market.

Corrected weekly by H. D. Clark, Dealer in Hides, Furs, Tallow and Leather.

HIDES—Green.....	54
Green, damaged.....	54
Green, kip and calf.....	55
Bull and stag.....	55
Dry flint prime.....	55
Dry Salked, prime.....	55
Dry damaged.....	56
TALLOW.....	55

Topeka Retail Grain Market.

Wholesale cash prices by dealers, corrected weekly by T. A. Beck & Bro.

WHEAT—Per bu. spring.....	55
" Fall No. 2.....	1.05
" Fall No. 3.....	1.05
" Fall No. 4.....	1.05
CORN—Per bu.....	20
" White Old.....	20
" Yellow.....	20
OATS—Per bu.....	20
RYE—Per bu.....	20
BARLEY—Per bu.....	20
FLOUR—Per 100 lbs.....	20
" No. 2.....	2.25
" No. 3.....	2.25
" Rye.....	2.40
CORN MEAL.....	90
CORN CHOP.....	70
RYE CHOP.....	80
CORN & OATS.....	80
BRAN.....	50
SHORT.....	65

Topeka Produce Market.

Grocers retail price list, corrected weekly by J. A. Lee

Country produce quoted at buying prices.	
APPLES—Per bushel.....	1.00
BEANS—Per bu—White Navy.....	2.25
" Medium.....	1.75
" Common.....	1.50
" Castor.....	1.25
BUTTER—Per lb—Choice.....	10
" Medium.....	10
CHEESE—Per lb.....	8.00
EGGS—Per doz—Fresh.....	15
HOMINY—Per bu.....	5.25
VINEGAR—Per gal.....	20
E. R. POTATOES—Per bu.....	50
P. B. POTATOES—Per bu.....	70
SWEET POTATOES.....	60
POULTRY—Chickens, live, per doz.....	1.25
" Chickens, Dressed, per lb.....	10
" Turkeys.....	10
" Geese.....	10
ONIONS—Per bu.....	70
CABBAGE—Per dozen.....	40
CHICKENS—Spring.....	1.50

Topeka Butchers' Retail Market.

BEEF—Strain Steak per lb.....	12 1/2
" Round.....	10
" Roasts.....	10
" Fore Quarter Dressed, per lb.....	6 1/2
" Hind.....	7 1/2
" By the carcass.....	7 1/2
MUTTON—Chops per lb.....	12 1/2
" Roast.....	12
PORK.....	10 1/2

New York Money Market.

NEW YORK, November 10, 1879.
GOVERNMENTS—Opened quiet and firm, except for issues of 1881, which were 3/4 per cent. lower than Saturday.

RAILROAD BONDS—Active and generally higher.

STATE SECURITIES—Dull.

STOCKS—The week opened with a great buoyancy and excitement on the stock exchange under easy news of the money market and the announcement that the treasury had purchased \$7,250,000 of 6's of 1881 at 108. There were also some special causes at work in favor of some stocks which had a tendency to increase the general activity and buoyancy. The advance in the general list was from 1 to 1/4 per cent. There was a general reaction after the second hour, but the market became buoyant toward the close. When it became known that the treasury had completed its purchase \$10,000,000 of bonds, prices advanced sharply in many instances, and the highest prices of the day were made in the final dealings.

MONEY—Money loaned as high as 7 per cent. per annum. 1/4 per cent. per diem, closing at 5/2 6 per cent.

PRIME MERCANTILE PAPER—6 1/2 per cent. STERLING—Unchanged; \$4 88; sixty days, \$4 80; eight, \$4 83.

GOVERNMENT BONDS.

Coupons of 1881.....	105 3/4
New 5's.....	102 1/2
New 4 1/2's (registered).....	105 1/2
Coupon sales.....	105 1/2
New 4's (registered).....	102 1/2
Coupons.....	102 1/2
Current 6's.....	123

St. Louis Live-Stock Market.

ST. LOUIS, November 10, 1879.

HOGS—Strong and held higher; Yorkers and Baltimore, \$3 25 @ 3 45; packing, \$3 40 @ 3 55; butchers to select, \$3 40 @ 3 70; receipts, 0,300; shipments, 2,300.

CATTLE—Fair demand and supply; values unchanged; heavy shipping \$4 40 @ 4 70; light, \$2 10 @ 2 35; butchers' steers, \$3 50 @ 4 55; cows and heifers, \$2 25 @ 3 25; grass Texans, \$2 25 @ 3 25; receipts, 2,000; shipments, 400.

SHEEP—Good demand and market unchanged; fair to good \$3 25 @ 3 60; choice to fancy, \$3 75 @ 4; receipts, 700; shipments, 500.

Chicago Produce Market.

CHICAGO, November 10, 1879.

FLOUR—Nominally unchanged.

WHEAT—Active, firm and higher; No. 2 red winter, \$1 14 1/2 @ 1 20; No. 2 spring, \$1 14 1/2 @ 1 18; No. 3 December, \$1 10 1/2 @ 1 14; No. 3 spring, \$1 03 1/2 @ 1 07; rejected, 87 1/2c.

CORN—Fairly active and a shade higher; 42 1/2c cash; 30 1/2c bid for May; rejected, 87 1/2c.

OATS—Fairly active and a shade higher; 32 1/2c cash; 32 1/2c bid for November; 32 1/2c December; 35 1/2 @ 35 3/4c May; rejected, 23c.

RYE—Steady and unchanged.

BARLEY—Steady and unchanged.

PORK—Strong and higher; \$9 75 @ 10 cash; \$9 50 bid for November, \$9 55 @ 9 60 December; \$10 70 bid for January.

LARD—Strong and higher; \$6 50 bid for cash; \$6 52 1/2 asked for December; \$6 70 @ 7 1/2 January.

WHISKY—Steady at \$1 05.

Chicago Live-Stock Market.

CHICAGO, November 10, 1879.

The Drovers' Journal this afternoon reports as follows:

HOGS—Receipts, 16,000; shipments, 5,500; scarce; heavy grades, 6c higher; light shipping, \$3 55 @ 3 60; light packing, \$3 60 @ 3 70; good, heavy shipping, \$3 70 @ 3 80.

CATTLE—Receipts, 5,000; shipments, 1,100; market dull and nominal all round; Texans sold at \$2 50 @ 2 60; good cows, \$3 25; pens well filled.

SHEEP—Receipts, 6,000; market weak and large offerings.

The London cable says prices are a shade higher to-day on everything.

Liverpool Market.

[By Cable.]

LIVERPOOL, November 10, 1879.

BREADSTUFFS—Unchanged.

FLOUR—10 1/2 @ 11 1/2.

WHEAT—Winter wheat, 13s @ 13s 4d; spring, 10s 8d @ 11s.

CORN—Old, 5s 8d.

SPECIAL OFFER.—To any one who subscribes now, and sends us \$1.75, we will send

1880.
Increased
in Size.



Vol. 53.
Elegantly
Illustrated.

It aims to be a favorite in every family—looked for eagerly by the young folks, and read with interest by the older. Its purpose is to interest while it amuses; to be judicious, practical, sensible, and to have really permanent worth, while it attracts for the hour.

It is handsomely illustrated by the best artists, and has for its contributors some of the most attractive writers in the country. Among these are

Harriet Beecher Stowe, James T. Fields, E. P. Whipple,
J. T. Trowbridge, Dinah Muloch Craik, Rebecca Harding Davis,
Sarah Wither Kellogg, James Parton, Louise M. Alcott,
Louise Chandler Moulton, Dr. Henry I. Bowditch, C. A. Stephens.

The variety and worth of its contents will make it a repository of the choicest literature; a library of tales, travels, adventure, history and biography; a "Companion" for the school, the study and the fireside. It will give

Serial Stories, Stories for Girls, Editorials on Current Events,
Stirring Tales of Adventure, Two Hundred Short Stories,
Letters of Foreign Travel, Valuable Papers on Health,
Brilliant Sketches, Poems, Anecdotes and Incidents.

Subscription Price, \$1.75. Specimen copies sent free. Please mention in what paper you read this advertisement. Address YOUTH'S COMPANION, Boston, Mass.



NOTICE.—It is a well known fact that all classes of goods have advanced from 10 to 50 per cent. since the opening of the Fall season. Montgomery Ward & Co., 227 and 229 Wabash Avenue, Chicago, Ill., are still selling goods at prices made in July, before the advance became general. Their stock is large enough to supply the demands. They will continue to sell goods at the old prices as long as they have or can obtain them. Now is the time to send them your orders. They sell all classes of goods required for personal or family use, at wholesale prices, in any quantity to suit the wants of the purchaser. The only house of the kind in America. For the convenience of their customers, Montgomery Ward & Co. send out a Descriptive Illustrated Price List of 144 pages, giving prices and descriptions of over 10,000 articles. Illustrated with over 1,000 cuts. Send for one of these Price Lists. It will enable you to purchase goods as well at your home as if you were at their store. Address, Montgomery Ward & Co., Chicago, Ill.

OIL PAINTINGS.

IMPORTANT NOTICE TO SUBSCRIBERS.

GRAND PREMIUM GIFT

OF A GENUINE OIL PAINTING GIVEN TO EACH AND EVERY SUBSCRIBER OF THIS PAPER! A GRAND OPPORTUNITY, READ!

Arrangements have been made with the National School of Design, of Chicago, Ill., which secure to the patrons of this paper the most valuable ART PREMIUMS ever offered in this country.

These Premiums consist of genuine Oil Paintings, painted on canvas by a corps of the best artists in the country. Each Painting is a masterpiece of artistic work, and worth more than all the Chromo or Engraving Premiums that were ever offered. Their beauty and value may be determined by the following card.

OFFICE OF NATIONAL SCHOOL OF DESIGN, CHICAGO, ILL.—Dear Sir:—Assure all subscribers that each and every Premium furnished under this arrangement will be a first-class, genuine Oil Painting, painted by a first-class artist, on good canvas, and that we are selling every inferior work every week for from \$10 to \$25 each.

One of these valuable Premium Oil Paintings will be given to each reader of this paper who cuts out the Premium Certificate found below, and sends it to the National School of Design, 124 Wells St., Chicago, Ill., together with eight three-cent stamps, or 25 cts. currency, to pay cost of mailing and postage. Each Painting will be sent by mail, securely packed and warranted to reach its destination unimpaired.

Out out this Certificate and send it to the National School of Design. It is worth \$10.

PREMIUM CERTIFICATE.—On receipt of this Certificate, together with 25 cts. to pay postage and mailing, we will send by mail to the subscriber a finely-executed

ORIGINAL HIGH-CLASS OIL PAINTING.

This Certificate is good until January 1, 1880, after which 10 cts. additional will be charged. No Painting will be sent without this Certificate, except on receipt of \$10, the retail price for these Premium Oil Paintings. All Certificates must be sent directly to

The National School of Design, 124 Wells St., Chicago, Ills.

NOTE THESE INSTRUCTIONS.—All Certificates should be sent in before January 1, 1880. All certificates must in all cases be sent, otherwise persons not entitled to the benefits of this arrangement might reap the advantage. Each Painting will be strongly protected by heavy wrappings, and postage will be prepaid thereon out of the 25 cts. sent in. But one Painting can be obtained for each copy of the paper this week, and the Certificate will not be again printed; hence, the importance of cutting it out at once and sending it in for redemption. Address all Certificates direct to

THE NATIONAL SCHOOL OF DESIGN, 124 Wells St., Chicago, Ills.

And you will receive by mail the finest and most valuable Art Premium ever offered in this country.

Victor Standard Scales.

Every Scale has a Double Cross Beam Box, and is warranted 5 years. For Price and Circular address

MOLINE SCALE CO.,
Moline, Ill.

124 in writing mention this paper.

New Advertisements.

Our readers, in replying to advertisements in the Farmer, will do us a favor if they will state in their letters to advertisers that they saw the advertisement in the Kansas Farmer.

RIDGE'S FOOD FOR INFANTS AND INVALIDS

Children often need simple nourishment rather than medicine, and how to afford this when the child has little power to assimilate is fully met in Ridge's Food.

FREE

A trial box (\$1 size) of Universal Pile Pills sent free on receipt of five 3-cent stamps. A Sure Cure. Try them and be convinced of their merits. Name this paper. Agents wanted. F. E. SMITH & CO., P. O. Box, 821, Middlebury, Vt.

A J. Thompson & CO.,

General

COMMISSION MERCHANTS.

Poultry, Game, Butter and Broom Corn Specialties. No. 196, South Water St. Chicago.

References: Hyde & Lentha Bank, Chicago, Ill., Patterson & Co., Union Stock Yards, M. D. Stevens, Chicago.

ESTRAY NOTICE!

Strayed from Sycamore Springs, Butler county Kansas, 2 sorrel mare colts. The oldest is a chestnut sorrel, three years old, and the other is one year old this spring, both have white hind feet and some white in forehead, both slim and tall. They left Sycamore Springs on the morning of Sunday, April 20th. Any one giving information of their whereabouts will be liberally rewarded by dropping a postal card to Philip Harsh, Postmaster, Sycamore Springs, Butler county, Kas. A. H. DILLON.

Nurserymen and Farmers!

We are prepared to fill orders for Forest Trees—Seedlings of any size—at lowest prices, consisting of Maple, White Ash, Dogwood, Box Elder, Red Bud, Sycamore, and the famous Tulip so valuable for ornament, shade and timber. Address BAILEY & HANFORD, Makanda, Jackson Co., Ill.

POULTRY BREEDERS TAKE NOTICE.

I have a few choice Plymouth Rock and Brown Leghorn fowls for sale at reasonable figures if applied for soon. Address Mount City Poultry Yards, Mount City, Kansas.

FOR SALE.

Native Bees in Quinby beehives. Mrs. E. D. VAN WINKLE, Pleasant Ridge, Lane County, Kansas.

LOST.

On the 24th day of October, 1879, one red cow with one horn knocked off; one red cow with white spots and calf alike. One white and two red yearling steers with white spots. The finder will please give notice to F. A. Beckstrom, Topeka, or to N. O. Folberg St. Marys, Kansas, where a liberal reward will be paid. Respectfully, F. A. BECKSTROM.

VERY IMPORTANT TO SHEEP OWNERS.

The new (patented) Sheep Dip. Little's Chemical Fluid. Non-Poisonous. Non-Corrosive. Will not injure even the eyes of the sheep. Kills red lice, ticks, scab insects, also ants, bed bugs and fleas on dogs. Cures gapes in chickens, improves growth and quality of wool. The first prize for wool given in London in June last, was awarded to wool from sheep that had been dipped in this fluid.

It is a Perfect Deodorizer and Disinfectant. Send stamp for Prospectus and testimonials from Australia, New Zealand, South America, Buenos Ayres and South Africa to T. W. Lawford, (General Agent) Baltimore, Md., or 15c for a sample. Agents wanted in every city and town. Terms liberal. Advantage over other dips is it moves perfectly in COLD water. 1 gallon makes 100 gallons of dip. Perfectly safe in cold weather.

RIDGE'S FOOD FOR INFANTS AND INVALIDS

Do not let your children grow up weak and puny, when Ridge's Food can be had at such a small cost. WOOLRICH & CO., on every label.

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The Dollar Family Newspaper.

Published at Topeka, Kansas, by

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The Weekly Capital, published at Topeka, Kansas is sent postage paid, one year for one dollar. It contains latest general telegraphic news, news from the principal cities of the state, and contributed and selected news from every county in Kansas. The decisions of the Supreme Court, proceedings of State meetings, conventions and such general literary miscellany and local news as will be of interest to all to make it desirable in every family. Send One Dollar by registered letter or post office order, and receive the paper one year.

SPECIAL ANNOUNCEMENT.

From and after January 1st, 1880 the Capital will be enlarged to a 32 column paper. Subscriptions taken at any time for one year, and the paper discontinued at the end of the time for which it is paid for. Sample copy sent free of charge to any applicant. In sending money for the Weekly Capital, mention the name of this paper, and write address plainly. Address

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PAVEMENTS CEMENTS,

Drain and Sewer Pipe, Well Tubing, and all kinds of LIME, PLASTER and HAIR.

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AGENTS WANTED. For the handsome and CHEAPEST BIBLES ever furnished Agents. FORBES & McMAHON, Cincinnati, O. CASH PREMIUMS

Stable Management.

Concerning the question whether horses are better in boxes or stables, Professor Pritchard holds that, provided they have plenty of room, nothing could be better for horses than a good loose box, in which the horse has an opportunity of moving about, and thus getting beneficial exercise. A loose box should be of a good height and at least ten feet long by six wide. He would recommend a length of fourteen feet and a width of twelve feet. He advises where permanence is desired, the use of stone for the structure if it can be obtained, with foundations of concrete, or with slate between the first few courses, if built of brick. The inside lining of the walls should be wood; and where glazed tiles are used, as in some expensive structures, they should never be white in a light stable, the glare being liable to affect the horse's vision injuriously.

Where room was not of much importance, he was opposed to having either loft or sleeping rooms over stables. The roof should be ceiled on the inner surface. As to the flooring, it should be of such a nature as not to absorb moisture nor be slippery. He had seen nothing better than ordinary bricks carefully laid edgewise, care being taken to select good bricks, since these will never become slippery, nor absorb any great amount of urine. There should be an ingress of fresh air as well as an egress of such air as is poisoned by the breathing of the horses. This may be secured without draught, and can best be arranged by openings near the ground and near the ceiling of the roof. With regard to temperature, it should be kept as near as possible from 50° to 60° F. all the year round. A horse kept in a dark place would show a better action on being brought from his stable into the air, and he believed it was a fact that horses so kept would look better in their coats. Still there are many drawbacks to dark stables. He recommends iron mangers fixed in brick work, since in some places he had known horses to rear, put their feet in the mangers and break through.

There are many strong objections to the unnatural practice of fixing racks above the horse's head. The professor advised that food should be given in small quantities and frequently, the horse's stomach being small in proportion to the size of the animal, and in consequence of the mode of digestion in the horse's stomach he was quite certain that it was best to give the horse his water to drink before his food. An opposite course of procedure, he claims, frequently leads to cholera, and gives rise to pain and inconvenience, which he attributes to the gastric juice which ought to digest the food becoming diluted by the admission of water into the stomach while the food is there. The horse does not prefer dirty to clean water, but does prefer soft water to hard, to such an extent that he would rather drink dirty soft water than clean hard water. Putting a little warm water into that drunk by the horse is preferable to the practice prevalent among some grooms of putting the water in the warm stable for the night, to have it a little warmer in the morning.

Ordinary horses should be fed three times a day, and with great regularity. A little hay should be given the horse to amuse himself with during the cleaning out of the stable, and he then should have his water offered to him, and before anything like a meal is provided him. As to bedding, nothing could be better than straw, which should be thick in those places where the animal might injure his houghs. In case of a horse having a habit of much pawing, sawdust might be used in front of him; indeed sawdust might be used generally, but not in those stables which have underground drainage. Horses must be thoroughly groomed to keep them healthy, as well as to make them look well. Instead of bringing the horse in when coated with mud and slushing him with cold or even tepid water, the mud should be wiped or scraped off as far as practicable, and then the legs wrapped round till they dried. Hundreds and thousands of cases of mud fever might be prevented if this plan were used, instead of throwing water over them or excessive washing.

Separating Cream by Centrifugal Force

The N. E. Homestead gives the following account of separating cream from the milk by the centrifugal process, which bids fair to create a complete revolution in the dairy business: "Almost during the first minute of the revolutions, the appearance of the contents of the vessel changes, and the color of pure rich cream is presented to the beholder, in place of the clear white of the whole milk which has been poured in. Soon a wall of cream, just outside the central cup, and raised far above it, to the metal coping at the top, plainly appears, presenting the peculiar appearance of a fluid raised into that position, and kept in place by rapid, whirling motion. This is, in fact, just what it seems to be, a wall of cream, alone, and just outside, and out of sight behind it, on the outer circumference of the vessel, is another wall of milk, which has become 'skimmed milk' by the process. Or the skimmed milk has become separated by the centrifugal force applied; the cream, being the lighter fluid, has taken its place nearest the center of motion, while the milk, the heavier, forms a corresponding body outside, and the two fluids now exist in the vessel in well defined and entirely distinct strata, which touch without it in the slightest degree mingling; and the two fluids run off into prepared receptacles on the floor, on the opposite sides of the machine. Being under full headway, the machine will now separate the cream from 300 to 400 quarts per hour." The cream may be separated or extracted from the milk within an hour after milking, which will be an effectual remedy against the danger of loss by souring in hot weather.

THE STRAY LIST.

HOW TO POST A STRAY

BY AN ACT of the Legislature, approved Feb 27, 1866, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal, to forward by mail, notice containing a complete description of said strays, the day or days when 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 as a fee for said notice.

How to post a Stray, the fees, fines and penalties for not posting.

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

Unbroken animals can only be taken up between the 1st day of November and the 1st 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, 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 a stray, must immediately advertise the same by posting three written notices in as many places in the township, giving a correct description of such stray.

Each 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 by him, and that he did not take it for the purpose of being driven there, that he has advertised it for ten days, that the marks and brands have not been altered, also he shall give a full description of the same and its cash value. He shall also give a bond to the state of double the value of such stray.

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

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

The owner of any stray, may within twelve months from the time of taking up, prove the same by evidence before any Justice of the Peace of the county, having first notified the taker up of the time when, and the Justice before whom proof will be offered. The stray shall be delivered to the owner, on the order of the Justice, and upon the payment of 1 charge 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 the householder to appear and appraise such stray, summons to be served by the taker up; said appraiser, 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 takerup 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, 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.

Fees as follows: To taker-up, for each horse, mule or ass, \$.50 To County Clerk, for recording each certificate and forwarding to KANSAS FARMER, .25 To KANSAS FARMER, for publication as above mentioned, for each animal valued at more than \$10. .50 Justice of the Peace for each affidavit of taker-up for making out certificate of appraisal and all his services in connection therewith. .35

Strays for the week ending November 12. Shawnee County—J. Lee Knight, Clerk.

MARE—Taken up Sept. 19th 1879 by John Rinchera of Auburn township one roan mare, branded Z on left shoulder, about 14 hands high. Valued at \$35. To left sold.

MARE—Taken up by Martha Coatswell of Monmouth township, Oct. 1st 1879, one black mare 2 years old, with white hind feet. Valued at \$40.

PONY—Taken up by H. W. McAfee, of Mission township, Oct. 7th 1879, one bay mare pony, 4 years old, valued at \$25.

MITCHELL COUNTY—J. W. Hatcher, Clerk.

MULE—Taken up by W. R. Nichols, Center township, one dark brown mule 15 hands high, saddle marks on right side of back, rope on neck 30 feet long. Supposed to be 15 years old. Valued at \$40.

SEDGWICK COUNTY—E. A. Dorsey, Clerk.

STEER—Taken up by Samuel J. Taylor of Grant township Oct. 25th 1879 one black and white Texas steer, branded on both hips, both ears cropped. Appraised at \$15.

LEAVENWORTH COUNTY—J. W. Niehaus, Clerk.

COW—Taken up October 10th 1879, by John Murray, of High Prairie township, and posted before G. W. Seymour, J. P., one red cow, supposed to be five years old, colored red with white along the back and some white on belly. Valued at \$20.

COW—Also one cow, supposed to be three years old, color white with spots on sides, red head and neck, and has a young calf. Valued at \$15.

MARION COUNTY—E. R. Trenner, Clerk.

COLT—Taken up by Levi Kline, living 8 miles east of Marion Centre, one dark iron-gray horse colt, 2 years in forehead, light color about the nose, supposed to be 2 years old; no mark on hind. Valued at \$15.

DONIPHAN COUNTY—D. W. Morse, Clerk.

COW—Taken up by George R. Dolby, in Wayne township, and posted before M. T. London, J. P., on Oct. 20th 1879, one cow, pale red, with white and yellow spots, the right horn half gone, a clip out of the top of left ear, a slit on the top of the right ear; valued at \$20.

SUMNER COUNTY—S. B. Douglass, Clerk.

COLT—Taken up by John D. Holmes, in London township, October 17th 1879, one bay colt, black mane and tail, appraised at \$7.

COLT—Also one dun mare colt, black mane and tail and left hind foot white; valued at \$5.

WALNUTS! WALNUTS! KANSAS LAND OWNERS

Raise Walnut Timber.

It is becoming scarcer and dearer each year, and will make your lands very valuable each year, and we will furnish walnuts for planting while our stock lasts at 60 cts. per bushel packages included; cash with the order.

TRUMBULL, REYNOLDS & ALLEN, SEEDSMEN, Kansas City, Missouri.

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A New Patent Horse Shoe, made of a Combination of Steel and Iron, and finished complete with Level Spring Platform—Continuously Oiled. The best for Horse-Railroads, Cattle and Horses. Prevents Tender and Contracted Feet, Corns, Interfering, Quarter-Cracks, Lameness, and all other ailments of the horse.

Use of the common shoe. Trial set, with Nails, \$1. To measure, place foot on paper, and draw your pencil around. Shoes put on cold. No heating of foot. Send for free illustrated paper. THE JOINT PATENT HORSE SHOE COMPANY, 1st & 10th Street, New York.

Ayer's Cherry Pectoral,

For Diseases of the Throat and Lungs, such as Coughs, Colds, Whooping Cough, Bronchitis, Asthma, AND CONSUMPTION.



The few compositions which have won the confidence of mankind of man, kind and become household words, among not only our but many nations, many have extraordinary virtues. Perhaps no one ever secured so wide a reputation and maintained it so long as AYER'S CHERRY PECTORAL. It has been known to the public about forty years by a long continued series of marvellous cures, that has won for it a confidence in its virtues, never equalled by any other medicine. It still makes the most effectual cure of Coughs, Colds, Consumption, that can be made by medical skill. Indeed, the CHERRY PECTORAL, has really robbed these dangerous diseases of their terrors to a great extent, and given a feeling of immunity from their fatal effects, that is well founded if the remedy be taken in season. Every family should have it in their closet for the ready and prompt relief of its members. Sick, suffering, and even life is saved by this timely protection. The prudent should not neglect it, and the wise will not. Keep it by you for the protection it affords by its timely use in sudden attacks.

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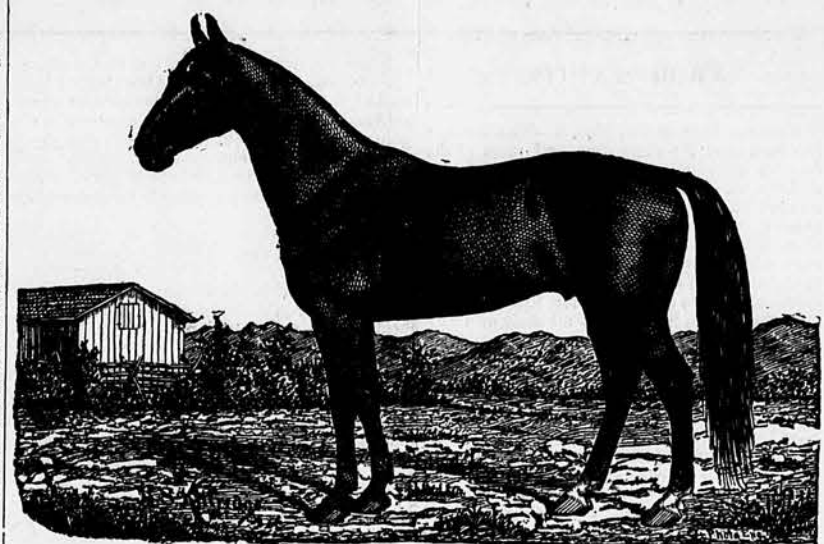
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"VICTOR KNIGHT."

Imported Clydesdales,

ALSO

HAMBLETONIANS,

And other desirable strains of

Trotting Stock,

Farm Letters.

ARGYLE, Sumner Co., Nov. 4.—The weather has been good for some time, and most of the farmers have taken advantage of it to gather their corn. Wheat still looks well. Some farmers have just finished sowing. There is a greater breadth sown to wheat in this locality than formerly. There is a large quantity of corn being shipped out of the Arkansas Valley to Colorado and eastern markets, although the farmers get little or nothing for the raising of it, as the dealers have things all their own way in the markets. I was informed last week by one of them, in Wellington, that they, the dealers, intended to keep the price down to 18 or 19 cents per bushel this fall and winter. Now what we want is some party or parties who will shell and ship corn so as to create a greater demand for it, so that the farmer may receive a fair price for his labor. Stock of all kinds have done well this season. Stockmen have commenced feeding for winter, thinking it better policy to feed early than to lose stock when hard winter sets in. The prospects for fruit next year are good, as there are more fruit buds set this fall than I have ever seen in any preceding year.

INDEX.

Our correspondent opens up a question which appeals to every farmer in Kansas. That of sharing a reasonable amount of the profit made upon their grain which is mostly enjoyed by middle men of one class and another. The farmers must take the matter into their own hands, by co-operating with each other. The farmers of the Arkansas Valley have means and intelligence enough to form an association by which they could control the situation. If they will open a correspondence with Mr. Geo. J. Holyoak, the great English advocate of co-operation, who is now in this country and who lectured at Cooper Union, New York, last week, he would doubtless very cheerfully give them the benefit of his long experience, which has resulted in the laborers of England accumulating a fund of twenty-five millions of dollars. The farmers of the Arkansas Valley could accomplish as much we haven't the least doubt, by using similar means, in a few years.

LANGDON, Reno Co., Nov. 4.—I have just returned from a journey through southwestern Reno and the northern part of Pratt counties. I find the young wheat in fine condition. It is put in the ground in better order than usual, and the most of it is strong enough to stand the winter freezes, I think, although much of it was sown late in September and in October. It had been so dry that many did not get their ground plowed in time to sow early. The acreage is fifty per cent above that of last year. The corn crop along the route is very light. It will not average ten bushels per acre, and the acreage was small. It is thirty cents per bushel, and rising in price.

The old crop of wheat is about all sold. It was light on account of grasshoppers, freezing, and the spring drought. When No. 3 wheat got up to \$1.05 in Hutchinson, which is the market point for a large portion of the state southwest of it, the farmers rushed in all the wheat they had on hand, as a rule, to market, and there is not enough left in Stafford, Pratt, Barbour, Kingman and Reno counties to supply the home demand until next harvest.

B. P. HANAN.

MORTONVILLE, Jefferson Co., Nov. 4.—The month of October proved to be very favorable, plenty of rain, weather warm, no killing frost until the 23d, so that the growing crop of wheat is up to a full average. A larger breadth was sown this fall. There is some complaint of the fly, but I have not seen a field of wheat that shows any damage from it. The crop of late potatoes is quite light, probably not more than one-fourth of a crop.

Stock of all kinds in good condition. The hog crop is beginning to move, it is not any larger than last year. \$3.10 is the highest that has been paid for hogs at this point.

I see in the FARMER of October 29th, an article "How to plant and manage an apple orchard," in which the writer advocates planting from 16 to 18 feet apart. Is not that too close? Will not the trees, as they grow, be so thick as to exclude light and sun? In the boss bearing orchards in this locality, the trees were planted 32 feet apart each way, and now after 18 years growth, they almost touch each other. No groves were planted around them, just an osage hedge.

JOSHUA WHEELER.

ROY, Sumner Co., Nov. 3.—Once more the chilly winds from the north are blowing steadily across the broad prairies of Southern Kansas and Jack Frost is making his nightly visits among us, and leaving every plant and shrub brown in his path. Winter wheat is looking much better than last year this time, and if the winter and next spring prove favorable, the wheat crop of 1880 will equal, if not surpass, that of 1878. An enormous acreage has been sown, especially here on new land, where it has been proven by experience that wheat will pay better than any other grain. The terrible grasshopper coming from the northwest passed over us in great numbers for several days. As none alighted we are free this season and the coming spring from their invasion.

Corn has done well considering the dry season and is yielding 25 bushels per acre on second soil. I promised you sometime ago to give my experience with fall breaking. Last November I broke a small piece of prairie, re-breaking again in April, put into corn and sorghum, cultivating a couple of times. I raised a tremendous crop. This fall the ground works up like old land, and wheat sown upon it looks much better than on any other.

My experience with German millet does not prove satisfactory, although I raised a good crop and my team love it and do well, yet there is a marked difference in wheat sown upon the ground and that sown on other land. While the latter has a very dark green color the former has a yellowish cast, looking as if affected by a terrible drought.

Live stock is doing well in this part of the county. No disease among cattle or hogs. The hay crop was remarkably short this season, but farmers have mostly provided against this, by saving corn fodder and wheat straw.

I have not seen a peach in the county and do not believe one was raised in it. Fruit trees are looking well, and have made a wonderful growth during the summer; and forest trees, especially cottonwood, are a wonder to every corner. The tiny seeds with the wings of cotton fly and float through the air over the boundless prairie and alight in every damp spot and hollow, spring up into a tree, which, if fires were only kept out, would in a few years make this country a beauty spot.

There are now only a very few vacant claims open to preemption; so fast has the country been settled, that now the hammer is heard on every side and new dwelling houses are constantly going up. What we want here in every new county, are men of enterprise and capital; men who are not afraid to take hold of the plow and hammer themselves; and such I am happy to say are numerous.

Goods of all kinds are going up in prices, although this will make it harder for those with scanty means, yet I take it as a sign of better times that are coming. Flour that sold for \$2.20 per hundred pounds seven months ago, now brings \$3.25 and is still on the rise. Potatoes \$1.00 per bushel; butter 30 cents a pound; pork, 6 cents, and on the decrease, or the supply increases. With good prospects for another season, and a second railroad now undergoing construction, without the aid of county bonds helps to make us all jubilant and happy.

F. E. MOSS.

CDARVALE, Chautauqua county, Nov. 3.—We are having very nice weather this fall for harvesting our corn, which is making a fair yield, considering the dry weather we had during the summer. It is averaging about 30 bushels per acre, of good quality and selling at 15 to 20 cents per bushel. Wheat averaged about 12 bushels per acre of fine quality and is worth 85 to 90 cents. This has not proved a very good county for producing oats. They probably yielded about 12 to 15 bushels per acre. Irish potatoes only about one-third crop, worth 75 cents per bushel. Millet was an ordinary crop, 2 1/2 tons per acre, worth \$2.00 per ton in the field. The wheat sown this fall looks splendid, notwithstanding the scarcity of rain.

Cattle is in good condition, better than usual. The range has remained good longer than common. Farmers are just now commencing to feed. There is no disease prevailing among cattle over the county generally. There is one locality that has lost some cattle recently. It is thought to be Texas fever caused by parties driving Texas cattle in about the first of last month previous to its frosting and freezing. There is no trouble except along the route they were driven over. Hogs are in good condition and no complaint of any disease.

M. BUMGARDNER.

UNIONTOWN, Bourbon Co., Oct. 31.—I had been in Kansas several years before I found that corn was good feed for calves, and much the cheapest food that was raised on the farm. I had been taught to believe that it produced too much fat, and did not furnish sufficient bone and muscle, therefore I fed it but sparingly and depended on oats or bran (if I had them) and hay, and in the spring my calves were none too fat, and to judge from appearance, they had had plenty of bone-producing material; and then it took them the most of the next summer to get in good condition, and they never made up what they lost the first winter. But for the last few years I have made a new departure. I commence to feed plenty of corn early in the fall, and increase the ration until I keep them growing and improving through the winter. I find that plenty of corn and prairie hay, with a dry, warm place to sleep in, will make a good yearling. Of course they would do better if they had some kind of winter pasture, but nine farmers out of ten in Kansas do not have the pasture. I feed the corn in troughs about two feet from the ground, and think that the best way is to chop it in small pieces with a hatchet, as they do not eat it so fast as they do if shelled, but if there is many to feed shelling is easiest and will do very well if fed enough. In fact I never have seen a calf that was fed too much, even if he had all he would eat. He will make an extra growth the next season and amply repay the extra feeding. No farmer can afford to let his calves sleep out-doors, if he has to sell part of them to furnish the means for sheltering the balance.

Kansas farmers (I mean you that have been afraid of feeding too much corn to your calves) try it this winter and I think you will report next fall that the extra amount of corn fed them will be the most profitable of any fed on the farm.

WILSON, Russell Co., Nov. 3.—Early sown wheat looks well for the chances it has had. It still keeps dry. That sown in October has come up scattering and will be a poor crop, as it will ripen very unevenly. Wheat is 80c; corn, 25c; potatoes, 75c. Corn nearly all in the crib, and will average 35 bushels per acre. Stock is in a healthy condition. So far as I can judge by reports from different parts of the state, we are getting our share of the blessings that are distributed to the people of Kansas. We can not expect an abundance of every crop every year.

T. W. HEY.

NEWTON, Harvey Co., Nov. 6.—We noticed an article in the FARMER of recent date, inquiring as to the propriety of farmers raising millet for hay. I have had nine years of practical experience in farming in Kansas, and I find that my experience and observation is of considerable benefit to me, and I wish it to be no less beneficial to my fellow farmers. I give you my opinion based on practice.

First, I think millet comes next to timothy for stock, and as timothy is very hard to start in this country as yet, we have to depend principally on millet as a substitute.

If you wish to raise millet for hay, sow one-half bushel per acre, cut as soon as the grain is filled, and stack without rain, if possible, but be sure it is well cured before stacking.

If desired for horses, I would recommend feeding prairie hay with it, but for young stock there is nothing better than the pure millet, stacked where they can run to it all winter, and they will come out fat and sleek in the spring, with little or no grain aside from that. It is profitable to raise for market as it brings two dollars more per ton than wild hay, but it is worth more than that to the stock-raiser for feed.

No material change in the markets since my last.

GEO. S. FUNK.

COPE, Jackson Co., Nov. 1.—Since my last, the weather has been very favorable to the husbandman. The first half of October was warm and showery, and the wheat fields made good use of the time in getting a luxuriant growth and ready to go into winter quarters. The latter part of October has been fine and pleasant, with a few frosts. The first frost to nip vegetation was on the 23d, and has been very favorable for corn-gathering.

The farmers are jubilant over the present prices paid for cattle, hogs and grain, as well as the flattering prospect for another wheat crop. There are evident signs of prosperity on every hand, and all acknowledge that good times are setting in. This is a good time for farmers to get out of debt, and to those that have mortgages on their homesteads, to lift them. And would it not be well for all to learn a lesson from the experience of the past few years of hard times, and keep clear of debt. Our observation upon the matter has led us to conclude that when times are good and money plenty and easy to obtain, it is a good time to get out of debt—should any one be so unfortunate as to

be in that condition—and not a favorable time to contract debts. The record of the past is that every few years brings a reverse in business, and to the one that is in debt when "hard times" set in, it is ruinous. My advice then to my brother grangers is to steer clear of debt now when on the eve of prosperity.

In my next I will give you some account of sheep husbandry in south Jackson.

J. W. W.

WHITE CLOUD, Doniphan Co., Nov. 6th.—Farmers in this part of Kansas seem to be very well pleased with their crops of 1879, yet the spring was very dry until May 9th. From that time to July 28th, we had an abundance of rain, then it went around us until September 11th, when we got well soaked with two inches of rain. September 28th we got 1 1/2 inches more rain. Again on October 15th and 16th we got 2 1/2 inches.

A larger acreage is sown to fall wheat than ever before, and it is in fine condition; never looked better at this season of the year. Corn is being gathered or cribbed, and wasn't damaged by the drought as badly as farmers supposed. It will be an average crop with last year, and most of them say there will be ten to fifteen per cent more corn than last year. I hear some farmers say they have gathered from sixty to seventy-five bushels per acre. Most of the corn is sold in the ear, and is not shivered as badly as farmers had feared it would be by the drought.

The hog crop will be about the same in quantity and quality. Four-fifths will be marketed before 1880 comes in. In November and December 1878, twenty-seven car loads of hogs were shipped from White Cloud and about four hundred head were packed, and in the corresponding months of 1877, one car load was shipped and about six hundred head packed.

Crops will average per acre about as follows: Corn, 50 to 75 bushels, good, and corn dealers find no fault with it; fall wheat, 18 to 38 bushels; spring wheat, 15 to 26 bushels; oats, 20 to 40 bushels; barley, 20 to 45 bushels.

Prices are as follows: Winter wheat, \$1; spring wheat, 85c; Irish potatoes, 40c; sweet potatoes, \$1.50; eggs, 10c; butter, 20c; corn, 20c; oats, 20c; barley, 40c. Farmers step high, with heads erect and lofty bearing.

First frost of the season, sufficient to kill tomato vines, was seen October 24th.

HERMITAGE.

GARFIELD, Pawnee Co., Nov. 3.—No rain here since September 28th, and then there was not enough to do much good—only wet the ground about three inches, which soon dried out. The wheat is suffering for rain, a great many pieces going out and turning yellow. If we do not get rain soon it will be entirely ruined. Have had a warm, windy fall until about two weeks ago, then we had our first frost. Since then have had raw, cold winds and slight freezing at night. The farmers have had their fall's work done.

Peanuts about one-half crop; quite a good many farmers had in a small piece this year. They will be a good crop to raise here. Egyptian corn does well as it requires but little rain to grow it. This has been the driest season I have seen since I have been here—six years last March.

Stock are doing well. Fresh milk cows are worth \$25 to \$40 per head; not much demand. Butter, 20c; potatoes retail at \$1.10; sweet potatoes, 35c per peck; corn, 36c to 40c; flour, \$3 per hundred.

V. DERHAM.

Wit and Humor.

A little religion is a dangerous thing. That was well illustrated in the case of the fire-eating Virginian, who, while returning from a camp-meeting, held out his hand to an old enemy and exclaimed: "Give me your hand, Sanders; I've got religion, and I feel mean enough to shake hands with a dog."—Advocate.

An English visitor at Peshawur sends home the following inscription copied by him from a tombstone in the English graveyard there: "Sacred to the memory of Rev. Blank Blank, A. M., who spent seventeen years as a missionary among the Afghans, and translated the Holy Writ into their language. He was shot by his attendant. 'Well done, thou faithful servant!'"

A young lady was endeavoring to impress upon the minds of her Sunday school scholars the sin and terrible punishment of Nebuchadnezzar, and when she said that for seven years he ate grass like a cow she was astonished by a little girl, who asked, "Did he give milk?"

WHY HE BUYS MULES.—Sheriff Pressly has some ideas on horses and mules. For farm work he purchases the latter. The other day one of the hands, a likely young fellow, asked: "Why don't you buy horses? I'd a good deal rather drive them." "I've no doubt of it," responded the genial sheriff, "so had I, when I was a boy. I'd plow a horse all day, and then spruce up at night and ride six or eight miles to see a girl. I noticed, though, that when a fellow rode a mule he was generally laughed out of a second visit. I guess I'll keep on buying mules. You boys won't be so tired when you go to bed."

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"Patrick O'Flynn!" called out the captain, "Here, your honor!" promptly responded Patrick, with his hand to his cap.

"How long do you wear a shirt?" thundered the officer.

"Twenty-eight inches!" your honor."

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If people had any clear conception of the amount of deleterious drugs they consume with their sugars and syrups, much less would be used.

Advertisements.

Our readers, in replying to advertisements in the Farmer, will do us a favor if they will state in their letters to advertisers that they saw the advertisement in the Kansas Farmer.



"As yellow as a Lemon," expresses the fact that jaundice has set in. The poor, diseased liver has turned like the iron upon worn and asserted her rights. Use at once

Tarrant's Seltzer Aperient regularly, according to directions; get the system in proper shape, and soon the bloom of youth will return to the cheek and health be restored. No medicine is better for the general system than TARRANT'S SELTZER APERIENT.

SOLD BY ALL DRUGGISTS.

T. H. B.

Beautiful Indian Territory.

When we went to Texas, we picked out the route down through the finest portion of Missouri, by way of the "Queen City" Sedalia, thence to Fort Scott and Parsons, through the garden portion of Kansas, passing along the wonderful "Valley of the Neosho," with its rolling upland prairies, broad majestic rivers, springs of pure water, deep ravines, rich plains of waving corn, dotted here and there with pretty farm cottages nestled under the green slopes.

Going south from Parsons, Kansas, our route led down towards the blue waters of the Gulf of Mexico, and we entered the *Charming Indian Territory*, just below Chetopa, Kansas.

Beautiful Indian Territory, inexhaustible in its variety of resources, with its mines, forests and prairies; its mountains, canyons and canyons; its valleys, its dunes and streams, the brightest skies, the grandest sunsets, the softest twilight and the most brilliant moon and glittering stars her fair surface covered with the rarest fragrant flowers; home of the wild horse, deer, elk, turkey, grouse and birds of song. Broad winding streams, clear as the fabled mirror in the halls of the fairies, wind along the green dunes and streams in airy undulations far away as if the ocean in its gentlest swell stood still with all his rounded billows, fixed and motionless for ever. No other country on the globe equals these wonderful lands of the red man. With a lingering look at them we crossed the Red river and entered Denison, the "Gate to Texas." From this point our route led through the finest and richest portion of Texas, through the grain and cotton growing districts, and the wonderful sheep and cattle ranches. What wonderful marks of progress we saw! Our earnest advice to those going to Texas is to be sure and take the route through the *Beautiful Indian Territory*, and enter the Gate City, Denison; see that you go by way of the Great Missouri Kansas and Texas Railway.

If you wish a beautiful illustrated guide book, describing Texas and Kansas, and containing articles on cattle raising, and where the best and cheapest lands are, it will be sent you free of charge by addressing

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ATTENTION FARMERS!

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THE Weekly Capital

THE DOLLAR FAMILY NEWSPAPER.

Published at Topeka, Kansas, by HUDSON & EWING.

The Weekly Capital, published at Topeka, Kansas, is sent postage paid one year for one dollar. It contains latest general telegraphic news, news from the principal cities of the state, and contributed and selected news from every county in Kansas, the decisions of the Supreme Court, proceedings of State meetings, conventions and such general literary miscellany and local intelligence from the State Capital as to make it desirable in every family. Send One Dollar by registered letter or post-office order, and receive the paper one year.

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From and after January 1st, 1880, the Capital will be enlarged to a 32 column paper. Subscriptions taken any time for one year, and the paper discontinued at the end of the time for which it is paid for. Sample copy sent free to any applicant. In sending names to the Weekly Capital mention the name of this paper and write address plainly.

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At 8 and 9 per cent.,

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BUTTER COLOR.

Prepared in vegetable oil by skilled chemists. Does not color the buttermilk. Imparts natural rich color and enhances price of butter greatly. Largest and finest butter-makers have adopted it. Sample by mail free. WHITMAN & BURRELL, Little Falls, N. Y. Wholesale Agents for America.

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To Sell to Dealers. Samples free. Send \$1.00 to insure answer. S. FOSTER & CO., Cincinnati, O.

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The Best, Most Largely Circulated, and the Leading Agricultural and Family Weekly Paper.

It is conducted by a Practical Farmer. It is ably edited in all its departments. It is aggressive, progressive and up to the times. Its agricultural information is the latest, and is always reliable. It is the

Only "Farmers' Organ," and the only consistent advocate of cheap transportation to the Len Board, and just and equal local rail road freight.

We have brought THE WESTERN RURAL out in a complete new dress.

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