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THE KANSAS FARMER.

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Topeka, Kansas.

Sub-Earth Ventilation.

A LIBERAL OFFER TO THE FARMERS OF
KANSAS.

All concede that the development of science and invention have given to the present generation innumerable business facilities, comforts and luxuries in the way of transportation, intercourse, food, beverages, light-generators, medicines, optical apparatus, architectural construction and decoration, clothing and personal adornment, ventilation, refrigeration, etc., of which our architects never dreamed.

The catalogue of necessities and luxuries named, though quite numerous, does not embrace a tithe of the channels in which discoveries and inventions that we are enjoying, and that many now living saw at their inception, and have lived to witness the development of from a mere novelty or toy to an absolute necessity in international intercourse, by which antipodes communicate with each other with greater dispatch than denizens of the same township could before the days of telegraphy.

The few examples mentioned will, however, suffice to substantiate the claim in the preliminary paragraph of this paper—that the present is an epoch of unprecedented progress in all that pertains to high civilization, but that there has been a corresponding progress in Christianization, or of wholesome moral growth in nations, communities, families, or individuals, by whom Christianity has long been claimed, the writer prefers to remain non-committal.

The special object of the writer will be, by the permission and co-operation of the editor of the FARMER, to offer to rural residents of Kansas, who may become the pioneers, in each county, in introducing and using sub-earth ventilation for dairy or other purposes, a patent license for the use of said system, at a nominal price, that a knowledge of its value may thereby be generally disseminated—feeling fully assured that that is all that is required to give dairymen and others a just appreciation of its real merit and great adaptability and economy for the purposes intended, such as has been obtained wherever it has been rightly applied elsewhere.

Sub-earth ventilation is in use in various parts of Missouri. I received a volunteer note from J. L. Erwin, of Fulton, Missouri, a few days since, in which he says: "I have now had an opportunity to test sub-earth ventilation in my dairy through both thermal extremes—the summer of 1879, and so far in 1880. I have been making butter all winter, and the prices that I obtain for my butter are forty per cent. above those at which the best and highest priced butter sold in our market, made in ordinary cellars, brings. Sub-earth ventilation is equally good for all seasons, or for hot or cold weather. I can now control the temperature so as to make good butter at all times, which I never could do before. Your system suits me."

Chas. W. Sylvester, of Marengo, Ill., who has been using sub-earth ventilation since 1876, says: "I can make butter now at one season as well as another, and good butter at all times. I always had to bank the walls of my house to keep vegetables and fruit from freezing, but the air from the sub-earth duct, which I now let circulate under the entire house, never permits the temperature to go lower than forty degrees, and I find that the air from the duct warms the entire house in cold weather, and saves a great deal of wood. I would not be without sub-earth ventilation on any account."

Wm. Marshall, Esq., of Whitewater, Wis., says: "I have now had an experience with sub-earth ventilation during two winters and one summer, and I am delighted with it. It works just as well in cold as in hot weather. The cheese that I cured by sub-earth ventilation and kept for six months by it, brought forty per cent. more than the same kind of cheese that is made from the same quality of milk, and made the same, and cured in the common curing rooms. The air from the duct is so dry and pure that nothing molds in the room ventilated on the sub-earth ventilation system. It is very good indeed, and is all and more than you recommended it to be. It is very valuable in all parts of this country, but I am sure that it will prove more valuable in England (my native country) than here. Fogs and damp air are the great trouble there, in cheese manufacture and keeping. I am thinking of leaving the boys in charge of the dairy business in this country, and going home, after

having been here twenty-two years, and building me a large cheese-curing and preserving house there. I am sure that I can, with sub-earth ventilation arranged as mine is, cure cheese better than it is now done in England, or on the continent, and that I can preserve it so much better than it can be done in any other way, that I can make the cheese-curing and storage business very profitable. We have visitors from all parts of the country, and all are delighted with sub-earth ventilation. It recommends itself to all who see it. If I had only known what I now know of sub-earth ventilation, ten years ago, I could have made at least \$2,000 a year more than I have. We have lost heavily on cheese shipped to England, for the want of proper curing, which we could not affect in the hottest season, nor in winter—we could not keep a proper uniform temperature, and a dry air in the curing-room, as we can with sub-earth ventilation."

I could give the address of others who are using sub-earth ventilation, and some who express great delight, as well as satisfaction with their experience with it, but I have given the address of two good butter-makers and one leading cheese maker, who may be addressed by all who may desire to investigate sub-earth ventilation.

It has been very interesting to observe the class of persons who have, in every district in which sub-earth ventilation has been introduced, been the pioneers. They have almost invariably been the most intelligent, sagacious, progressive and useful citizens in their respective communities.

There is, however, another class who are adopting it in the localities in which the class described have led, who, strange as it may seem, are as low in the scale of civilization as the pioneers are exalted. This class of followers is actually induced to adopt the new system from jealousy, that niggardly incentive. Seeing their more intelligent neighbors enjoying what they look upon as a luxury which they do not possess, yet have the means to purchase, but which they had not the intelligence to appreciate and adopt for its obvious merit, they covet and secure it that their leading, progressive neighbor shall not be able to say that he has a thing that they cannot afford.

The writer mentioned the fact above stated to an itinerant, parlor-organ vendor, who replied: "My experience in the sale of organs has been the same as yours in the sale of licenses to use your system. Having sold an organ to a leading, intelligent citizen, I have often sold several to neighbors, whose incentive to purchase was jealousy, for not a member of the family had the least taste for music, or ability to use the instrument, but they could not bear to have the neighbors say that they could not afford to have what their progressive neighbors had."

I find in the leading article in the FARMER, of the 7th of April, under the heading "Butter and Cheese," signed J. H. S., the following. In speaking of the adaptability of Kansas climate for dairying, he says:

"We cannot make good butter in Kansas, in hot weather. Even the best cellars and milk-houses do not exclude the hot wind and dust. So say our best butter-makers, and hence it is that for six of the best months in dairying, but little solid butter is made."

That this statement is true in the main, of Kansas, as alleged, I have no doubt, i. e., in the use of ordinary milk-houses, having neither cold water nor ice. With these cooling agents, and skill in their use, good butter may be made in Kansas, and the "Cooley" system recommended by J. H. S., is the best apparatus for making butter in the use of ice, known to the writer. But cold water and ice are at best difficult to obtain and maintain. Many cold, flowing springs which had been considered perennial for a century or more, have failed entirely. The writer can now call to mind numerous instances of the kind, and many others, where strong, flowing springs and wells have so nearly failed that they are worthless for cooling milk.

The same is true of streams from dams in which ice is gathered. They not unfrequently are low at the time of the first freeze of the season, and before ice is fit for gathering a thaw and flood comes and covers the ice with silt, and no good ice is obtainable during that season.

Ice-houses that will keep ice, in middle and low latitudes, are not matters of chance, nor are they built, annually filled, and the ice protected in them, and daily manipulated for dairy purposes, and secured to dairymen without very considerable original outlay, frequent repairs, perpetual care, and labor of a heavy and unpleasant character, and in winters like the past, no trifling amount of disappointment and loss.

In short, it is everywhere conceded that natural supplies of cold water and ice are unreliable, and their failure has often occasioned dairymen who are depending on them, very severe loss. I have, in my memorandum book, a note of fourteen "spring-houses," once used for butter making, in different parts of the country, the water supply in which has partially or entirely failed, and they have been abandoned, and nine out of the fourteen proprietors nearly abandoned butter-making, and with heavy loss and inconvenience in some instances, but they are now using sub-earth ventilation with full satisfaction and unshaken confidence in its perpetuity and reliability.

Unlike veins of water in the earth, and streams from which we obtain ice, the tempering potency of the earth below solar influence is absolutely reliable and may be availed of to an indefinite extent and alike at all seasons and in all habitable latitudes. It is a demonstrated fact that denizens of both the tropics and of the highest habitable latitudes may, by means of sub-earth ventilation, properly applied, supply their dwellings with pure air at precisely the same temperature perpetually, and the sub-solar temperature is known to be 18 degrees to 20 degrees lower than is most desirable for human occupation, hence it only requires to be heated artificially say from 50 degrees up to 70 degrees, or 20 degrees in the coldest weather, provided the building and air supply air-duct are properly constructed, to have it as warm as is desirable.

The degree of luxury and economy attainable in the use of a system possessing such desirable and remarkable characteristics, appears really anomalous, until the action of the physical laws involved are clearly understood, when it becomes alike simple and axiomatic.

Mr. Editor, it was my purpose to embrace in this paper a proposition to the farmers of Kansas, but I am warned, by the pages of my manuscript, that it is already too long, hence I shall defer it till your next issue, which I regret.

J. WILKINSON.

Brooklyn, New York.

Tree Experience.—No. 7.

BY B. P. HANAN.

COTTONWOOD.

Cottonwood grows wild on the Medicine river and tributaries, on the Arkansas and tributaries, and in the sand hills north and west of me a few miles.

I have a few acres of them on my timber claim, some by themselves and about ten acres in between ash, walnuts, soft maples and other slow growing trees. My plan was to cut them out for fuel and other purposes, as soon as they got large enough, which I thought would be sooner than the other trees, which I designed for a permanent forest. I also thought they would cause the other trees to grow straighter and more slender. But I find the cottonwoods grow so fast that they rob the other trees of moisture, in a dry time, by their roots; therefore I have abandoned the plan and believe it is best, as friend Bishir of Hutchinson says, to plant each variety of forest and fruit trees by itself. My cottonwoods grow faster than any other trees on my lands. A few of my trees were denuded by the grasshoppers in the fall of 1878, and died during the drought in 1879, as did many others in this part of the state. A large worm (of the tobacco worm species, I judge,) ate the leaves from many of the trees last summer which helped to kill them. I would not advise to plant cottonwoods except for quick returns where other timber is not to be had. The timber is not valuable for any purpose, except for fuel, and quick returns. Catalpa, black and honey locust grow almost as fast, and ash, the maples and other trees, are so much more valuable when grown, that I prefer to plant mostly of them.

BEECH.

I planted about 100 beech, one year old from the seed, in nursery rows in the spring of 1876, but they all died when the hot dry weather came on.

CHESTNUTS.

Of the same age as the beech all died in the same way.

HACKBERRY.

I have a few trees two years old, 4 to 6 feet high. A part are from seed from Missouri, and the others from seed from the Medicine river. The Missouri variety grows the faster. They are healthy, but as the timber is not very durable, nor so valuable as ash, catalpa, box elder and other trees which grow equally as well, I shall not plant any more.

HONEY LOCUST.

In the spring of 1877, I planted a peck of honey locust seed. Although they had been

buried, and frozen during the previous winter, but few of them came up; but they came well the next spring after remaining in the ground a year longer. Hot water is better than freezing, I think. They were planted in a row on my timber claim. In the spring of 1879 I dug up and thinned them, leaving one every five or six feet. I transplanted those I dug out, and lost only about one per cent, notwithstanding it was the worst spring for transplanting trees, I have experienced here. The seed was gathered in Missouri from trees without thorns. But some of my young ones have a few thorns, and a few of them have many. My trees are very thrifty, grow up straight and as fast as any I have, except the cottonwoods. I have one tree, two years old, that is nine feet high and six inches around. It grew five feet eight inches the first year.

Riley County.—Manhattan.—The Agricultural College.—Dry Weather.—The Fair.—Fine Stock, Etc.

This town, the county seat of Riley county, is 118 miles west of Kansas City, and on the line of the Kansas Pacific railroad. Manhattan is a flourishing town of 2,000 population, and is pleasantly situated on the level, rolling land between the bluffs and the Kansas river. The streets are well macadamized or paved with gravel, and the pavements and crossings laid with stone. The houses are principally built with stone, which gives the houses a solid appearance. It is a good town—her citizens being moral, energetic and public spirited. Two newspapers, the *Nationalist*, by Alfred Griffin, and the *Enterprise*, by Mr. Runyon, are published here. Both are well conducted and ably edited papers.

We were indebted, this morning, to the kindness of Prof. Ward, for a visit to the Agricultural College, situated a mile from the town, where we spent an hour or so most pleasantly. We met a very kind reception from President Fairchild and all the Faculty. We visited the rooms of Prof. Ward, Prof. Shelton, Prof. Platt, Prof. Popenoe, and the office of the *Industrialist*, in charge of Mr. A. A. Stewart, and listened to the recitations of a number of classes, with a great deal of pleasure and pride in the institution. We also visited the carpenter shop, where some ten or twelve young men were learning to shove the plane or learning the use of the boring machine and turning lathe. We there saw tables, desks and panel doors made by students that were in their second year, that would do credit to an old, experienced workman. While looking through and noting the fine facilities for the young men of Kansas to acquire a good practical education at this institution, I could but wonder that there were in attendance only about 140 students. The Faculty of this college is an able one; the cost of acquiring an education here is very cheap, and there ought to be 500 Kansas boys in attendance. Of course a visit to the college would not be complete without a visit to the barn. There we saw the finest herd of thoroughbred Short-horns that we have ever seen in the west—a bull and some twenty odd cows, heifers and calves.

The weather is very dry. Before your readers peruse this hastily written letter, we devoutly hope that the soil of Kansas will be drenched with a warm, April rain. The wheat in this section looks well—much better than one hundred miles west, but must suffer badly if rain does not come within a week.

The Western National Fair, to be held at Lawrence, Kansas, in September next, is engaging the attention of every one in this section. It was our pleasure to meet some twenty-five or thirty of the solid men and thrifty farmers of Riley county, at the Adams House, last night, and confer with them on the subject of the Fair, and the propriety of Riley county making a county display of farm products, etc., at the Fair, in competition for the grand \$1,000 premium. Their determination was unanimous and energetic in favor of the proposition. Riley county will be there with a county display, and will be hard to beat.

There is much fine stock—horses, cattle and hogs, in this county. Mr. A. W. Rollins, of this county, with his herd of Berkshires, took the first premium at the Kansas City Exposition, last fall. Saline, Dickinson, and Davis are also moving in the matter, and with a reasonably favorable season, there will be such a collection of agricultural products from twenty or thirty of the best counties of Kansas, at the Bismarck Grove Fair, as the world has never looked upon before.

What, Mr. Editor, will Shawnee do? Can your live, thrifty farmers and energetic and public spirited citizens, afford to let the prejn-

dice and jealousy of a few prevent this county being represented at this Fair by a display of her farm products? They cannot. Other counties all around Shawnee will be there, to show to the thousands there assembled, from day to day, the fertility of their soil by proof that cannot be questioned. We hope, that the good citizens of Shawnee county will think of this seriously and follow it up with action, and make a show from her rich farms at the State Fair.

JOHN H. RICE,
Gen'l Ag't. W. N. Fair Association.

Trees for Windbreaks.

ED. FARMER: In your issue of March 3d, Bro. Bishir, of Hutchinson, comes forward with a 'yea' for the 'doomed tree.' Now I want to hear from the men who paid Bro. Bishir fifteen cents for lombardys in their 'teens' at one year old. How many survived the season of 1879? Of course it pays better to raise lombardies and sell them for fifteen cents each than to raise cotton-woods and sell them at five cents. No one will dispute that. But that is not the question with Kansas farmers. With them the great concern is which makes the best and quickest and cheapest wind-break? Every experienced Kansas farmer must know that it would never pay him to purchase these untried foreigners at fifteen cents each, when he can stick native cotton-wood 'sticks' into the ground and make an effective wind-break and fence in three or four years. Now if there is a man in the Arkansas valley west of Hutchinson, who planted lombardies in the spring of 1879, we want him to cast his vote in the FARMER. We do not desire to spoil the trade of any one who may have a 'corner' on lombardies, for they are very beautiful trees.

In the spring 1877 I put out a 3-mile hedge with cotton-wood cuttings. At one end I put in several rods of lombardy cuttings. That is the only gap of any consequence in my hedge, to-day. I can give no good reason why they did not grow. I will not explain that. I would say that they had good cultivation; in fact they received more attention than the cotton-wood.

It is safe to confine ourselves to facts and experience in these matters. In the spring of 1874 I planted two rows, twelve feet apart, of cotton-wood seedlings, four to five feet apart in the row. The grasshoppers killed a small percentage of these. In the following spring (1875) I filled in these vacancies by trees similar in size. These two rows now form a perfect wind-break; indeed I would not desire a more complete wind-break. I have a peach and apple orchard on the north of it and the good effects are plainly to be seen. The trees are about six inches in diameter and from twenty to twenty-five feet in height. Not a single one has died since I filled the vacancies in 1875. They have had no cultivation for two years and but very little pruning.

Now I should like some one to step forward and give the same showing for the lombardy. If Bro. Bishir, or any of those who have bought lombardies in their 'teens' at fifteen cents each, can make such a showing let them speak out.

Farmers in this section of Kansas are waking up to the importance of wind-breaks. They almost invariably plant the cotton-wood, mostly cuttings. This we claim is wise. The cotton-wood is a native and the cuttings are easily procured, with little if any cost, except the work of cutting and preparing them. On account of its quick growth the farmer is very soon rewarded for his labor. It is claimed that they are not valuable for timber; in fact no one claims that they are valuable for timber. That is not what we plant them for, but for shelter and wind-breaks. They are valuable for their rapid growth; they also answer for fuel, and dimension lumber when we cannot get anything better. We must plant other kinds for fuel and lumber. Among the best I would mention the walnut. It is a native and the seed can be easily procured. They will grow rapidly after two years old, and will do well close by the side of a cotton-wood wind-break, such as I have just alluded to. I have a border of walnuts growing inside of my cotton-wood wind-break. They have seemingly done the best where they are nearest the cotton-wood. They are ambitious growers, and have a tendency to overreach everything else that may be growing by their side. I would advise all those who have put out cotton-wood hedges or wind-breaks, this spring, to plant a border of walnuts this fall or next spring, next to the cotton-wood—say eight feet from the cotton-wood—dropping the nuts from one to two feet apart in the row. I would plant not less than three rows either four or eight feet apart. If the rows are four feet apart, on an average Kansas soil, by thorough cultivation for three seasons, they will need no further attention but thinning out where they crowd each other. If the rows are eight feet apart, a row of corn can be cultivated between for three or four years. Next to the walnut I would plant catalpa, vox elder, ash and mulberry in their order—the mulberry last—for it is claimed that will make a hedge.

J. B. SCHLICHTER.

Sterling, April 18, 1880.

Poultry.

Essay on Poultry-Raising.

"To become a successful poultry-breeder requires time, care, thought and study, as well as practice." The question invariably arises: What breed shall I keep? Which do you think is best? That one breed is superior to another in some respects there is no mistake. None are worthless, yet the profit is less from some than others. Select some good fowls of any breed you may fancy, of pure blood. For eggs, I would suggest Leghorns—either variety, Hamburgs, White Crested Black Polish, Houdans; but for eggs and table use, the Plymouth Rock, Dark and Light Brahmas, Cochins, or other of the Asiatics. At the head of the list I would place the Plymouth Rock. I have tried many and find nothing that exceeds them as egg producers or as a table fowl.

We will suppose you have your birds. Now, how many hens to a cock? If of the small breeds, twelve hens if yarded, fifteen or eighteen if at large; if Asiatics, ten if yarded, and fifteen if remaining out and the cock is vigorous. If you are just starting with a trio of hens, keep the cock separated from the hens, putting him out with them every few days. There is a great deal said as to how long the eggs are fertilized after copulation. Some claim that after the fifth egg the vitality ceases. This may have referred to the large breeds, but I know from sad experience, that a dozen eggs of a favorite pullet were rendered useless by her running with a game bantam cock. So if you want to keep your breeds pure, separate your cockerels from the pullets whether they have commenced laying or not, just as soon as you see they are paying attention to them.

FEEDING POULTRY.

In winter I would feed, in the morning, warm feed, either corn meal mush or wheat screenings, scalded or allowed to swell, or oats treated in the same way, with whole corn occasionally; corn and wheat screenings at night; scraps from the breakfast and dinner table at noon. Give plenty of green food—cabbage, onions, or turnips; preference given as they are named. In warm weather feed small grain—oats, wheat, or screenings, with a little corn at intervals of a few days. If the fowls are yarded, give green food; if running out they will pick up sufficient for their needs. Pure, fresh water should be given them twice a day, at least, in winter, and oftener in warm weather. Iron drinking vessels are preferable to either earthen or wood. Keep them free of slime by frequent washing.

To keep fowls bright and healthy, give Douglas' mixture—one tablespoonful to a quart of drinking water. It is made thus: "One pound of copperas and one ounce of sulphuric acid dissolved in a little warm water, then add one gallon of hard water. It can then be put in a jug or stand in an open vessel, and is always ready for use. This will be found an excellent tonic and is very cheap.

Spade up a corner of the poultry yard when the ground is wet, and sow to oats, corn, or wheat, and let them busy themselves scratching it out as it is sprouting and the ground drying. Always see that your fowls have a good dust bath. Throw coal ashes where they bathe, also a little sulphur to rid them of vermin. See that they have plenty of gravel. Give them all the egg shells from the eggs used in the house, with lime either thrown to them or in their drinking water, and you will not be troubled with soft shelled eggs.

BROODY HENS.

Never use cruel means to break a hen of sitting. After you are convinced that she has the "incubation fever," take her from the nest and confine her in a nice, dry coop; keep feed and water before her. After four or five days' "treatment" she will not return to the nest. She should be removed to the roost with the other fowls every night, otherwise she may get to sitting in the coop. This I find a good way to treat them. In a few days she will be feeding with the other hens, (instead of wasting away on the nest or contracting disease in a filthy coop), and will soon be ready for the next season of "egg fruit."

SETTING HENS.

Get your nest ready before getting your hen. Set her away from the rest of the flock in a sheltered place if possible. I prefer a barrel to anything I have ever tried. Put four or five inches of damp earth in the barrel. Lay the barrel on the side, after hollowing out slightly the earth where the barrel is to be placed. Put in fine short hay or straw; sprinkle a little sulphur in the nest and put in a few eggs; put your hen in the nest, close the end of the barrel and leave her. Set her late in the afternoon. If by next day noon she seems contented, take the eggs from her and give her the eggs you want, her to sit upon. Let her come off every day for feed and water, which should always be prepared before opening the barrel. It is best to have a lath coop two feet high by two wide, length of lath, one end closed, to set in front of the barrel, then the hen is always sure to go back without trouble. It is well to sprinkle the earth with tepid water in very warm, dry weather, or see that the earth is sufficiently moist.

CARE OF YOUNG CHICKS.

They should not be handled more than need be. If it is necessary to help them from the shell, do so very carefully. Do not remove them from the nest until twenty-four hours old. They need no food during this time, as they are digesting the yolk from which they were hatched. Have their coop in a place well protected from the wind, and where they will get the benefit of the sun. When taken from the

nest give the hen water and all the corn she will eat. Feed the chicks hard boiled eggs chopped fine for at least a week. (I feed mine this three weeks). After they are a week old, a little cracked corn and wheat screenings may be fed in connection with the egg. Young chicks should be fed five times a day until ten weeks old. Remember that green food (onion tops chopped fine or lettuce) is excellent for chicks. Never allow chicks to perch until three or four months old. Let them sit on straw on the floor, or a board ten inches wide about a foot from the floor, thus avoiding crooked breast bones. Do not house them with old fowls, as they peck and worry them, and never, under any circumstances, feed very young fowls with the old birds.

CLEANLINESS.

I cannot too strongly urge the necessity of perfect cleanliness. Clean your poultry house every month, at least. My poultry houses are cleaned every week, and fresh soil or coal ashes throw under the roosts to keep the droppings from adhering to the floor. I have not had the cholera in my flocks for years, and I owe it to the sanitary attention given them. Now is a good time to renovate the poultry house thoroughly. Take out the roosts and nest boxes and scald them by pouring boiling water on them; then whitewash the house inside, also the nest boxes and roosts; add an ounce of carbolic acid to a gallon of whitewash. This will rid the house of lice if there be any in it, and my word for it your hens will be healthier, happier, and lay better than in a dirty, filthy house.

Ottawa, Kansas.

Mrs. Ross.

Raising Turkeys.

Turkeys may be raised with the greatest success by putting the eggs under a common hen; for the hen turkey is not so good a provider as most fowls, and the young turkeys, unlike our other domestic fowls generally, give little signs of seeking their own food immediately after birth. When quite young they are very tender and need more than ordinary attention, the first and most essential thing being to keep them warm and dry. If they are allowed to run in the grass when it is wet with dew, many will be likely to die. For the first three or four weeks after hatching, therefore, care should be taken to shield them from the scorching sun, rains and dews. It usually requires from thirty to thirty-two days for the eggs to hatch.

At two periods in the lives of young turkeys they require more than ordinary care. The first is about the third day after hatching. The second is about six weeks after hatching, when they throw out what is termed the red head. This is a very critical period for young turkeys, much more so than at the period of moulting. At this time their food must be increased and rendered more nutritious; boiled eggs, wheat flour and bruised hemp-seed make an excellent food. Great care should be exercised in feeding the young turkey at all times. No slop food of any kind should be given. Some breeders feed sour lopped milk, but this is not a good article of diet. Sour milk boiled to a thick curd is good. It may be mixed with boiled Indian meal and a little black pepper may be occasionally mixed with it. Indian meal uncooked should never be given to them. They should be fed often and the food thrown upon the ground, so that in picking it up the gravel which adheres to it will aid in its digestion.

At two months old the young turkeys may be considered as out of danger from over-feeding, etc., and should then be fed with cracked corn, boiled potatoes, refuse from the table, buckwheat, and occasionally a little fresh boiled meat in small quantities. By professional breeders, after this age, they are no longer called chicks but poults, and may now have their full liberty. When fattening, a little finely pulverized charcoal may be advantageously mixed with their food.

Our domestic turkey, not infrequently in the outlying districts, mates with the wild turkey, and produces a very valuable poultry bird. When the female turkey is allowed to hatch her own eggs she ought to be carefully watched, and, if possible, she should be induced to sit in some outbuilding; but if she steals her nest, as they generally do, then it ought to be watched, so that when hatched the chicks can be immediately cooped. The hen turkey is not a careful mother—wandering off too far at a time, beyond the strength of the young ones, and the weaker chickens are almost sure to be lost. Chopped onions, green barley or green oats chopped fine, may be advantageously mixed with their food when very young. All through the fall they should be fed night and morning. This insures their return from their rambles to the vicinity of the homestead. The male bird does not attain his full plumage before six years of age, and as few are allowed to arrive at that period, it is seldom we have an opportunity of seeing this splendid bird in the full majesty of perfection.

Kansas ought to be a good turkey region, possessing a dry climate and abundant insect food on the prairies. A flock of fine turkeys represents more money than the same number of pounds of any other meat product.

Shepherd Dogs.

The intelligence and natural instinct of these valuable animals cannot be too highly praised, and it is a matter of pleasure to all lovers of fine stock to see the rapidity with which they are becoming introduced into our country. No farmer should be without one. They are watchful, docile, and indispensable, especially in wild and mountainous localities, to the suc-

cessful raising of sheep. So strong are their instincts for the care of stock, it is a matter of little trouble to train them, and once they have learned what is required of them they are faithful and untiring in the performance of their duties.

In Europe, where large flocks of sheep are under the care of but one shepherd, with the aid of these dogs the sheep are allowed to roam over vast territory, oftentimes in such rough places as to render man's attempts to follow them impossible. The dogs' sagacity is such that they at once become familiar with the flock, and not only do they keep them closely herded, but prevent their intermingling with the flocks of others which may be grazing in the same localities. In the mountains of Scotland and Switzerland it is a common thing to see flocks of sheep and goats under the sole care of these dogs, they following them all the day, and driving them into fold in the evening.

In England, within the last few years, field trials have been instituted, in order to improve the breed and training of these valuable animals. The performances recorded of some of these dogs at such trials are extraordinary. They are managed in this way; first a few sheep are allowed to roam a long way off from home; then the dog, or dogs, are laid on to drive them into an enclosure built for the purpose. Strict time is kept, and the one which accomplishes the feat soonest is declared the winner. Another more difficult task is then imposed, and one which tries their sagacity to the fullest. A number of sheep from different flocks are placed together, and the dog is required to go among them, pick out and drive into fold his master's particular ones.

No one can look into the calm, intelligent face of the thoroughbred "Colley" without admiring him. He notices every action, and listens to every word of his master, as though he knew exactly what he wished, and was only sorry that he could not reply to him in words. The many authentic anecdotes related of these dogs are so wonderful as still almost to cause a doubt upon their truthfulness. For instance, it is related of a Scotch shepherd, who had in his charge seven hundred sheep, that one night as he was quietly driving his flock home, a thunderstorm burst upon and so terrified them that they created a stampede, and away the whole lot went scampering back into the hills. It was too late for the poor man to follow them, and then, could he have done so, to bring this great number in order again was an impossibility. Sadly did the poor shepherd feel; and in his saddest manner he spoke to his favorite dog: "Sirrah, they are away." In an instant the dog was off. It was so dark he could not tell which way the dog had gone. Disconsolately he wandered about during the long hours of the night, and as dawn appeared, the dog not having returned, he had determined to go at once and report the disaster to his master, when happening to look down a valley close by, to his joy he recognized "Sirrah," not with a portion only, but with the whole flock.

A story is told of another one of these dogs having driven the cattle from a burning stable, though perishing himself in the effort.

A sheep stealer in Scotland had one of these dogs so well trained that it is said he could, while walking past a flock of sheep, designate the one he wished, and at night the dog would go into the fold and drive out that particular one.

Another equally astonishing account is given of a "Colley" whose owner was a cattle dealer. This dog would drive a drove of cattle to a neighboring market town unaided. Should he chance to meet another drove in the road he would so manage as to pass it without allowing his charge to mix up with the others. But the most remarkable instance of their sagacity is when they are used for smuggling. On the frontier between France and Belgium a deal of this business is done in passing hares from one country to the other. Not only do these dogs know how to circumvent the custom-house officials, and learn to avoid them, both by scent and hearing, but when two or more are on the same errand at the same time, if they find an officer by himself, they not only attack and punish him severely, but instantly return with their valuables to the starting point, apparently knowing that what they have done will put others on the lookout to kill them for the injury they have committed.

With such evidences of sagacity as the above, it should stimulate the breeding of these dogs, and once the country is stocked with them, the farmer can go to bed with the assurance that his flocks and herds will be carefully guarded, and the fearful loss by sheep-killing dogs put to an end. They can do the work so much better than men that the cost should not be a consideration, as they would pay for themselves in a very short time, no matter what was the price paid. In the famous Central Park, of New York, two of these dogs can be seen, every day, guarding a large flock of sheep. They keep them where ordered, or change them from one meadow to another, as directed; sometimes the shepherd divides the flock, leaving one portion in the care of each dog, when he goes off to other duties. What a comfort that would be to many of our sheep-breeders who have large ranges for their animals, and who do not know half the time where they are!—*Dixie Farmer.*

Apiary.

The Early Feeding of Bees.

More bees are destroyed by management in the spring than are benefited. They are often killed by ill-advised kindness. The grand es-

sential to life and vigor in bees is the same which promotes these in all animals—warmth and comfort. Bees should have a bountiful supply of food to last them till the tenth of May furnished them in the fall. If they cannot procure it for themselves feed honey or syrup before the weather grows cold to make up 30 pounds of winter stores for each colony. Before the severe cold of autumn comes or pack them away in leaves, straw or chaff, with a tunnel to the opening of the hive to allow the bees egress and ingress in warm days, and let them remain undisturbed in their winter quarters till the weather is mild, about the last of April or May first. If set out early the sudden changes incident to spring will effect the bees as they effect people or farm stock. The variable temperature of March and April is the most unwholesome of all the year. If the hives are set out early the bright sun warms up the whole interior during the day and causes the bees to be unusually active. At night the mercury runs down below the freezing point, the hive is chilled through and its inmates suffer. They consume more honey, are more restless and less healthy, hence "spring dwindling" and the loss of so many in spring. Opening hives in the spring and "examining" bees is productive of evil. Every time the hive is opened they are exposed to cold drafts, and the warmth of the hive is dissipated.

If the colony is strong as it ought to be, the bees will do their own house cleaning without any assistance. The bee-keeper who has sufficient judgment to properly manage bees can know the condition of each colony, by sitting down beside it in the heat of the day and observing the actions of the bees. The weakness or strength of the hive will soon be made manifest. If they show strength and vigor let them alone, if weak assist them by feeding. Hives that are set out early should be exposed to the sun in clear days and covered with bags, old carpets, etc., and boards at night and during cold spells. Apply the same rule: to that you do your own house keeping. Cover up the close and warm at night and take advantage of the warm sunlight during the day.

On this subject of spring management, L. C. Root, a practical bee-keeper, of Herkimer, N. Y., in the *Country Gentleman* says:

"I sometimes wonder that the experience of different bee-keepers can vary so widely. This matter of removing bees from their winter quarters very early in spring, and stimulating them by feeding to very early breeding, is very fine in theory, but in actual practice it is quite the reverse. In buying bees in spring, I almost invariably find that such as have been left in winter quarters the longest are most advanced in brood-rearing. Leave bees quietly in their winter abode until pollen is furnished by the early flowers, and then if honey is needed, supply it. The advice given by so many to stimulate breeding during winter and early spring, if followed in our northern latitudes, will bring ruinous failure upon many an inexperienced bee-keeper.

I am frequently asked at what date I would place bees upon their summer stands. My answer to such is that a precise date cannot be given from the variability of the seasons. In latitudes like Central New York, I would advise setting them out about the time the soft maple tree blossoms. Their prosperity will then depend more upon other conditions than that they be fed liquid sweet. In fact, I hesitate to advise the average bee-keeper to feed at all, if the hives are well supplied with honey. The great point to be observed, is that the bees be not allowed, from rapid breeding, to consume all their honey, and thus check the increase. Honey is consumed very rapidly when brood is being largely reared, and if a scarcity of honey should occur, as is often the case between fruit blossoms and clover, it is very essential that food should be supplied. While I practice feeding in some instances from the time they are removed from the cellar until natural stores are secured in abundance, yet experience gives assurance that great care is requisite in so doing, and it will often result in harm rather than gain."

Horticulture.

The Gregg (Blackcap) Raspberry.

Purdy's catalogue says of this berry: "We have grown every black raspberry that we have ever heard of, or that we could get hold of, and we are safe in saying that the Gregg is the largest by one-half, and the most productive in bulk by one-half; the finest, the neatest, and the very best black raspberry grown. They are very late, however, coming even after the bulk of the mammoth cluster are gone. We picked at the rate of fifty bushels to the acre from the plants set a year ago last spring, while from no other kind of the same age (one year old) have we ever picked more than thirty bushels to the acre. From no other kind of blackcaps have we ever picked such an amount. We have no doubt but what a plantation grown in good soil, with good care, that is the new growth nipped back so as to grow stocky and branch out, would yield over one hundred and fifty bushels to the acre. Why, just think of bushes literally lined with clusters of berries averaging three-fourths to seven-eighths of an inch in diameter! Our pickers who have attended to the gathering of our crops of that sort, have averaged two quarts to other pickers of other kinds one, (the latter being equally as fast pickers too). We have measured many specimens that were one inch in diameter, while its average size is three-fourths to seven-eighths inches. It is very late, producing heavily after the mammoth clusters are gone."

Peach and Apple Tree Borers.

M. B. Bateham, of Ohio, gives through the *Fruit Recorder*, the following valuable recipe to prevent borers getting into peach and apple trees: "Ten years or more ago I tried the use of paper bands and gas tar, in various forms, on my peach trees, and when carefully applied it was effective in excluding borers, but for the past seven or eight years I have practiced a more excellent way, and I know other fruit growers who have done the same, and would not think of going back to the old methods. It is simply using carbolic acid, which is the essence or spirit of gas tar, and is easily made to combine with water by adding soap, while the tar itself will not combine, and is far less safe and cleanly in its application. My rule for preventing borers is to get a pint of crude carbolic acid, costing 25 cents—and is sufficient for twenty gallons of the wash. Take a tight barrel and put in four or five gallons of soft soap, with as much hot water to thin it, then stir in the pint of carbolic acid, and let stand overnight, or longer, to combine. Now add twelve gallons of rain water and stir well; then apply to the base of the tree with a short broom or old paint brush, taking pains to wet inside of all crevices. This will prevent both peach and apple borers. It should be applied the latter part of June in this climate, when the moth and beetles usually appear. The odor is so pungent and lasting that no eggs will be deposited where it has been applied, and the effect will continue till after the insects have done flying. If the crude acid cannot be obtained, one-third of the pure will answer, but it is more expensive."

We believe the above remedy for borers, would also exterminate grubs from strawberry, raspberry and blackberry roots—only that for strawberries dilute it with double the amount of water.

Whitewashing the bodies and limbs of pear trees is almost a sure preventive to fire blight. If, however, the blight makes its appearance in your trees, cut off the part affected at once, and slit the bark of limbs and body on one side with a sharp knife, and apply pure linseed oil.—*Purdy's Fruit-Farm and Nursery.*

Stir the Soil.

"If I had to preach a sermon on horticulture," says Downing, "I should take this for my text: 'Stir the soil.'" In dry weather this is very essential that the soil be stirred often. The air waters the fresh dug soil much more effectively than we can do. A man will raise more moisture with a spade and a hoe in a day than he can pour on the earth, out of a watering pot, in a week. If the ground be suffered to become close and compact, the cool surface exposed to the air for the reception of moisture is smaller, and what is deposited does not enter into the earth far enough to be appropriated; but if the soil be loose and porous, the air enters more deeply and deposits its moisture beneath the surface. Almost any soil in which a seed will germinate may be made, by continued hoeing, to produce a crop. Above all, cut away every weed that appears. "One year's seeding makes seven years' weeding." The only use of weeds is to make a necessity of tilling the ground more frequently.

Cabbage Experiments.

A cabbage grower of Erie county, Pa., gives some of his experiments in the *Country Gentleman* in raising this crop, which is a very valuable one if it is raised successfully and preserved in good condition until marketed. It has been thought that cabbage, to keep in the best condition, should be buried, but this man's experiments seem to contradict this belief, those not buried keeping much the best. On this point he says:

"I pulled some cabbage while frozen, and paid dear for the experience, losing about half of them, while those left standing until the frost was all out were not damaged, except the outside leaves of the heads. In December, during a warm spell, I pulled them, using a potato hook to pull on the stump and not the head, and inverted them between the rows in the furrows made at the last shovel plowing in October. As they were put into this furrow, care was taken to have the coarser leaves cover each other as much as possible, for protection from frost. The furrow formed a partial protection, as the sides of the heads were protected by it. The coarser leaves were the only covering thought necessary. Those of them not yet marketed remain as they were put last fall, and they are all right, while a few hundreds I buried with earth after the 20th of January, are badly decayed, and I lose about four out of five. I need not have lost them, but I wished to see which way was the best. I have been troubled somewhat by the frost in them when preparing for market, but after their being in the cellar a day or two, they were all right. My customers have found no fault with the cabbages, but speak of their keeping so nicely. I have prepared every one for market myself, and do not remember of finding one head, that was originally a good one, that was injured in any way. The field looks somewhat dilapidated, the frequent frosts using the coarse outer leaves up, but not hurting the heads any. It takes a great deal of freezing to hurt a cabbage, if inverted, and all the coarse leaves are left on. I covered a few, but the frequent rains caused them to be damaged, while the ones with no covering but leaves were all right. They would not stand so hard freezing after nearly all the outer leaves had been frozen and rotted off, as they would in the fore part of winter. This is probably the hardest sort of a winter to keep cabbages. Had it been a cold winter, with plenty of snow, I think they would have kept better in the same way. The November frosts hurt the outer leaves of the head before they were turned down, thus causing a little more breaking off, but otherwise no damage was done."

Patrons of Husbandry.

Extracts from an Address of Rev. Thos. K. Beecher.

The farmer should be and may become master of nearly all trades. It is indeed a grievous thing to see, as I saw, an old man in harvest, when every hour was worth a day of ordinary time, come four miles to get me to whittle out a rake-head. Now by this one illustration, learn the whole story: A complete rake can be got at a store for twenty-five cents. I insist that if you will buy five or six dollars' worth of tools and sit down with your boy, jack-knife in hand, in some prepared shop, and go to making a rake—teeth, head, hoops and tail; and so that rake costs you three and a half or four dollars. Commerce says you are a fool to pay three or four dollars for twenty-five cents' worth. Wisdom says you are wise. Your boy has learned something; he is a bigger boy. He knows now how to use tools. You've got two shillings in your rake, twenty shillings in your boy!

There are many empty hours in the winter time which make nothing toward the money income of a farm, which are the very hours which make toward that costliest crop that a man can raise on a farm—his sons and daughters.

These little achievements of home ingenuity furnish, as it would seem to me in my dream, the stuff to take to the grange with you as topics of conversation. I have no particular respect for that girl who goes to the store and for a dollar and a half buys a half-worked pattern to finish up the other half; all the hardest and artistic work being done by dainty fingers in Europe. She sits down and fills in the ground, and makes a present to her mother of an ottoman cover, or her father a pair of slippers. I don't see that the girl has gained any faculty whatever.

But suppose that same girl should buy at a store an assortment of worsteds, and should pluck from the garden a pansy and lay it out on her canvas and make a piece of embroidery. You can buy something handsomer than that for two dollars. But I say, the girl who can make her own embroidery patterns has gained a faculty. She is more lovable than the girl that has been merely ornamented with all that money can buy. And the boy brings his rake and jack-knife to the grange, and the girl brings her devices of embroidery to the grange, and these things are a heaven.

But, brothers, that is a cheerless farm home in which the care of the milk enslaves the women, and the clank of the churn is the morning call to labor, and a hundred firkins of butter is the yield of the farm; and the farmer brings back a story of net profits, one thousand dollars, to a wife and family who do not and cannot use wisely in the culture of manhood and womanhood more than two hundred dollars.

I would further suggest: There is, there must needs be, in every gathered grange, a diversity of attainment. At that grange center, when you come together, is one who knows more about literature than all the rest put together. Let that one, then, make a selection of periodical literature; and let it be brought to the grange center, and carried home from the grange meeting, and circulated throughout the grange district. There is a better way of selecting newspapers, believe me, than subscribing to the sectarian paper of your church, or the party paper of your politics. Read all sides.

The same may be said as to books. Obtain books for consultation. An encyclopedia of botany ought to be in every grange library, to be consulted by any bright eyed boy or girl that wants to know what the plants are that grow upon the farm.

There ought to be a microscope, the property of the grange, to be used by him or her of approved skill in using it, to tell others what may be discovered, and to teach others how to make the discovery. A circulating library is part of the apparatus of the grange. Three dollars from each family will give one hundred dollars' worth of books to the thirty families every year (for buying by the quantity you will buy cheaper).

Farmers' Education.

It is not merely by the use of books that the farmer may become intelligent. He should be a constant experimenter, making himself familiar with the processes of nature, and ever seeking to discover her secrets. The ordinary farmer takes things for granted; his operations are largely conducted by guesswork, but he who would be intelligent must exercise patience, and experiment with painstaking and labor, and the man who thus comes in contact with nature must be elevated and ennobled thereby. The man who has learned how to read and think, if he will follow out the suggestions here made, will find himself growing in intelligence and enthusiasm for his profession, with each passing year. It won't do to say you have no opportunities to become educated and intelligent. All knowledge is connected. If you take up one branch and pursue it a little way, you find other branches running into it at every step, and to understand the one you must become familiar, to a greater or less extent, with a hundred others. This is especially true of agriculture. As a science, it embraces all sciences, and its study quickens and expands the whole intellectual nature.

The Case Properly Stated.

The Texas Farmer states the position very properly which the grange as a political power should occupy, in the following brief sentence:

"The man whose devotion to the grange cause is measured by his desire for political office, is unworthy of grange votes, and the grange that is run in the interest of politics or office-seekers is a failure. The political benefits that grow out of a well regulated grange are purely non-partisan and belong as much to one party as another, and are designed to enlighten, purify and elevate public sentiment. This will guide the voter in his action at the ballot box and secure the election of men to office who are best fitted for the place, break up the habit of blindly following the yelp of every cheap fourth-rate politician who wishes to make notoriety and foist himself into office by 'gulling' the unwary voter."

A Live Grange.

The grange at Red Oak, Logan county, Ky., is perhaps as near the model farmer's club as any in Kentucky. Our attendance is large. We meet simply for the purpose of communicating information, and discussing questions of practical interest to farmers. We are making no effort to control the world. We are not going to elect a farmer for the next president. We are not bothering "middle-men," and they are not bothering us. We are not even controlling the railroad system of the country. We spend no time railing about the tremendous salaries paid professional men, doctors, lawyers, etc. We realize that our business is to till the soil, and all questions bearing on this great object, and on advancing the social welfare of our families, interest us. Farmers of experience say that they have found our grange of immense value. To the writer of this, its meetings are delightful, and we believe that, apart from the social influence exerted by such gatherings, the information exchanged is of incalculable value. This is the kind of co-operation we need just now—a co-operation of brains in regard to the best ways of farming.—*Fruit Farm.*

This is probably the best first step for a grange. The members will soon learn that it is part of their business to very largely contribute to electing "a farmer for the next president," and that they have an important work to perform in controlling the railroad system and bothering with middle-men. All these exercise a very great influence in regulating the farmer and the farmer's business, and he should exert a corresponding influence in regulating them.

Miscellaneous.

The Competition of the Plains.

The *American Stockman*, which has a keen sight and is usually alive to any indications of a change in the fat stock business, sounds the following note of alarm to slow farmers, in a late issue:

"One who judged only by the appearance of the supply of cattle seen day by day in the markets of the west, might be excused for thinking that our farmers are ignorant of the fact that far greater profits lie in the feeding of high bred stock than in raising scrubs, but they are not ignorant of that acknowledged truth. They know they can make more money by handling well bred stock, but their recollections of the fact is not always vivid enough at the moment to prevent their buying a scrub steer to feed, or a scrub cow to breed from, or a scrub or grade bull to serve their herds. The well bred steer or cow, and the thoroughbred bull are so high-priced, and the scrubs are so cheap that the latter coax the money from the farmers' reluctant purse, when his better judgment assures him that he is penny wise and pound foolish. But, if many of the best stockmen in the states east of the Missouri are right in their conclusions, the question of the relative merits of the good and the inferior classes will not long be one of comparative profits, but the farmer will be called upon to choose between good stock, with a well-developed tendency to rapid growth and early maturity, and the old-fashioned description of cheap stock—and absolute loss. We might say he is called upon to choose now between these extremes, for already the keen and clear-headed competition of the cattle men of the plains, aided to an almost incalculable extent by the advantages of free range, has already reduced the profit, to the farmer, of scrub stock to nothing. Last winter Iowa, Nebraska, Kansas and Missouri took great numbers of grade cattle from the plains, filled them with cheap corn and hay that cost a mere trifle, and are now ready to crowd our markets with sleek, well fattened cattle, of a weight admirably adapted to the wants of the spring market. Last week saw the advance guard of this army, and, if we mistake not, common and medium native steers, grazed on land worth thirty-five or forty dollars per acre and fattened on corn worth twenty to twenty-five cents per bushel, will suffer sadly in the contest for recognition from buyers. And yet the western plains have not sent any of their half-breed Short-horns and half-breed Herefords to compete with eastern cattle, but they have herds from which quite a respectable number of steers will be sent this year to show what manner of cattle can be produced on the plains by judicious use of thoroughbred bulls. The full significance of this fact will be apparent, in two or three years, to all the breeders and feeders east of Nebraska and Kansas.

"Not a few of the thinking farmers of Illinois, and the states adjoining this, express the conviction that he who would raise cattle in the future, without positive loss, must raise those which will at an early age develop into ripe, heavy animals of good style and in every way

suited to the needs of the best and most exacting markets here and abroad."

The Paper Combination.

The combination among paper makers to levy tribute on the whole publishing fraternity, is causing earnest and just remonstrance from publishers, and such a protest as it will be well for members of congress to heed. Among the hundreds which have gone forth we copy the following from the *Vermont Record*, which places the subject in its true light to the public:

"There are five manufacturers of wood pulp in the United States, and forty-six paper manufacturers who pay a royalty for using the pulp. These fifty-one corporations constitute the combination on printing paper, which demands extortionate prices. Other manufacturers of paper are numbered by thousands. The present duty on unglazed printing paper is 20 per cent., and the revenue derived from it in the fiscal year 1878 (the latest analytical compilation) was \$311; on sized printing paper the duty is 25 per cent., revenue collected in 1878, \$214; on writing paper the duty is 35 per cent., revenue collected, \$3,937; on wood pulp the duty is 20 per cent., and the revenue collected was \$128 (during the last fiscal year it was but 48 cents), and on other crude paper stock there is no duty.

"The insignificant amount of revenue derived from most of the articles named is the best evidence that the duties are prohibitory, and not protective in the true sense, and that the manufacturers of them are able to manipulate the markets about as they please, whenever they combine to do so. The ways and means committee favor a bill to place paper, wood pulp, and other crude articles, on the free list, and reducing the duty on woolen goods from fifty to forty per cent., ad valorem, and it is only natural to expect that all the manufacturers of these articles will combine to defeat such a bill. It is due to the intelligence of a majority of that committee to give them the credit of knowing this; and, in the interest of the entire reading public, we should know who those are who dare, in open congress, attempt to strangle with riders the bill to place wood pulp on the free list.

"At the present cost of paper, it is quite impossible for journals which depend upon their circulation to pay expenses at the old rates. Either the pulp and chemicals used must be admitted free, or the people who publish and buy newspapers must be unjustly taxed for the benefit of foreign manufacturers and a small special interest in this country."

The Colorado Plains.

That portion of the Centennial state that lies west of Kansas and east of the Rocky mountains is a treeless plain covered with a dense growth of buffalo grass, which seldom reaches a height of more than three inches, interspersed with occasional clumps of sage bush and cactus. This plain has an average width of about two hundred miles, some fifty miles of which is included in Kansas. The United States senate has taken a step looking to utilizing this territory of over 50,000 square miles, at least for pasturage, if not for cultivation. A bill has passed that body authorizing the secretary of the interior to make two experimental borings, at such points as he may select, to demonstrate the practicability of obtaining overflowing water. The great plain lies on the cretaceous, or chalk formation, with portions of it overlaid by more recent deposits. This is a condition favoring the success of the experiment. The result of the French artesian wells in the African desert is encouraging.

Bitter Cream.

Henry Stewart, discussing dairying in *Rural New Yorker* says that bitter cream is caused by something in the food or in the condition of the cow, every one knows how prevalent that vile plant, bitter weed or rag weed, (*Ambrosia artemisiifolia*) is; and how much of it is cut with the second cutting of the meadows,—the much-praised-for-butter rowen hay. This weed will give to milk, cream or butter, a very bitter flavor, which no process or disguise can conceal. If turnips are fed, I defy any person to escape bitter cream and ill-flavored butter. The presence of a heap of turnips on my barn floor the past winter so impregnated the air, although none were fed, that the milk was perceptibly flavored by them until they were removed. Feeding immediately after or before milking is unavailing. There are cows which from some peculiarity of condition give milk which turns bitter. Such cows should be discarded from a winter dairy as soon as the fault is discovered, for they are not healthy and their secretions are not pure. The mixture of a pinch of saltpetre in a six quart pan of milk will remove or disguise this bitterness, I cannot say which.

Egyptian or Rice Corn.

Egyptian or Rice corn was successfully raised in this vicinity last year, when corn was nearly all destroyed by the worms, there being no old land, and all crops being on newly broken sod. Put in as late as the first week in July, it matured before frost came and produced twenty-five bushels to the acre. Cooked like rice or hominy, it makes an acceptable dish for the table, and farm animals of all kinds eat it as readily and thrive as well on it as on corn. It has proved a valuable crop in the western counties of the state, being a sure crop on the sod, no matter how dry the season. To such of our readers as cannot readily obtain seed, I will send sufficient to plant one acre or less on receipt of stamps to pay postage on same. Two pounds will seed an acre.

Mrs. A. B. PRESCOTT.

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Can rely upon immunity from contagious disease in their flocks after use of LADD'S TIGRACCO SHEEP WASH. GUARANTEED to give an immediate cure for scab and prevention of infection by that terror to flock-masters. 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 powerful and sure 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 orders to W. M. LADD, 21 N. Main St., St. Louis, Mo.

The Sheep's Life and Shepherd's Friend.

New and very Important Discovery.

Deodorizer, Disinfectant, Antiseptic, Insecticide,

and valuable Therapeutic agent. Little's soluble Phylite; also Little's Chemical Fluid. The new shed Dip is a sure cure for Scab, Mange and foot rot, kills lice, ticks, and improves the growth and quality of wool; cheaper and better than anything of the kind in use at present, as one trial will prove, costing less than three cents to dip a sheep, mixes readily with and is used as a dip in cold water at all seasons of the year; has all the advantages of carbolic and arsenic and does not stain or discolor. Send a 3 cent stamp for prospectus and testimonials to

JAMES HOLLINGSWORTH,

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Bee Hives,

Italian Bees

Bellise, New American, Langstroth and Simplicity hives complete or ready to nail. Full colonies Italian Bees in good movable comb hives. Honey Extractors, Bellows Smokers, Bee Books, &c. Descriptive circulars sent free. Address

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To Bee-Keepers.

Many of our subscribers are lovers of Honey and would keep bees enough to supply their own tables at least if they knew how. We have made arrangements to furnish all such persons the 32 page monthly Bee-Keeper's Magazine at only \$1 a year (formerly \$1.50) or the KANSAS FARMER and Magazine for \$2.00. Also all bee books and articles used in Bee-Keeping at very low prices. The Magazine gives beginners just such information as the must have to make the business successful and profitable. Send the money direct to us and we will see that your orders are promptly filled. For Prices of Extractors, Hives, Smokers, Uncapping knives, etc. Address, Publisher of the KANSAS FARMER, Topeka, Kansas.

RIVERSIDE FARM HERD OF POLANDS.

Established in 1868.

I have in my herd the sow that took first money and sweepstakes, and the sow and boar that took first money in their class at Kansas City Exposition in 1878, and the sow, boar and litter that took first premium and sweepstakes over all at the meeting of the Lyon County Agricultural Society in 1879. These pigs are all of my own breeding, and are competent for record. I send out nothing but first-class pigs. All stock warranted, and shipped as ordered on receipt of money.

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FOR SALE CHEAP.

One bull 3 years old, kind and gentle to handle. No better in the state. Has been shown twice a year and never failed of winning a prize 1 yearling, 2 bull calves, cows, heifers, and cow calves. Address VINTON ALLEY, Emporia, Kas.

Breeders' Directory.

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G. B. BOTHWELL, Breckenridge, Mo., breeder of Spanish or Improved American Merino sheep of Hammond stock, noted for hardiness and heavy fleece. 300 rams for sale.

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

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.

FOR SALE, Scotch and black & tan rat ter pups, \$10 each; shepherd pups, \$15 to \$25; also pointers and setters. These are lowest prices. All imported stock. A. C. WADDELL, Topeka.

MILLER BROS., Junction City, Kansas, Breeders of Recorded Poland China Swine (of Butler county Ohio, strains); also Plymouth Rock and Brown Leghorn Fowls. Eggs, \$1.50 per 12. Descriptive Circular and Price List free.

Nurserymen's Directory.

LEE'S 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 assortments; stock first class. Orange 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.

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A. H. THOMPSON, D. D. S., Operative and Surgeon Dentist, No. 189 Kansas Avenue, Topeka, Kansas.

TEETH extracted without pain, by Nitrous Oxide gas, or laughing gas, at DR. STULTZ Dental Rooms, over Funk's Clothing Store, Topeka, Kansas.

JAMES A. BAYLES,

Lees' Summit, Jackson County, Mo., Has the largest and best Nursery Establishment in the West. Correspondence promptly answered.

Berkshires for Sale.

I have a few choice pigs to spare. All eligible to record and as good as there is in the state.

W. P. POPENOE, Topeka.

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

G. W. GLICK,

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—AT THE—

COLLEGE FARM.

We offer for sale a few litters of very choice pigs; the set of such noted sires as Imported Mahomet 127, Gil Blas 2627, —a son of Lord Liverpool— and others, "Bullies", "St. Bridges" and "Miss Smiths" in the herd. Pigs ready to ship now. Also

SHORT-HORNS,

(Young Marys), of both sexes. Address

E. M. SHELTON,

Supt. Farm, Manhattan, Kansas.

HOGS.

THOROUGH-BRED 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 pigs. Terms reasonable. Correspondence solicited.

RANDOLPH & RANDOLPH.

Emporia, Kansas

M. W. DUNHAM

Has Just Imported 36 Head

FOR HIS OAKLAWN STUD OF

PERCHERON-NORMAN HORSES.

Another Importation

WILL ARRIVE ABOUT MARCH FIRST.

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, 1878. First Prizes and Grand Medals at international 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 have drawn supplies from its stable.

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.

—H. B. All imported and pure native bred animals recorded in the Percheron-Norman Stud Book

THE KANSAS FARMER.

E. E. EWING, Editor & Proprietor,
Topeka, Kansas.

TERMS: CASH IN ADVANCE.

One Copy, Weekly, for one year, 1.50
One Copy, Weekly, for six months, 1.00
One Copy, Weekly, for three months, .50

The greatest care is used to prevent swindling humbugs securing space in these advertising columns. Advertisements of lotteries, whisky bitters, and quack doctors are not received. We accept advertisements only for cash, cannot give space and take pay in trade of any kind. This is business, and it is a just and equitable rule adhered to in the publication of this Farmer.

TO SUBSCRIBERS.

Subscribers should very carefully notice the label stamped upon the margin of their papers. All those marked 17 expire with the next issue. The paper is at once discontinued at the expiration of the time paid for, and to avoid missing a number renewals should be made at once.

The Advantages of Reading the Kansas Farmer.

We are in frequent receipt of letters informing us of the advantage derived from some article probably a brother farmer's letter,—the writers have seen in the KANSAS FARMER; how the information imparted by it has saved them from considerable loss in some proposed experiment in farming not adapted to soil and climate, or the profit and satisfaction they have reaped from having the experience of one who has preceded them in cultivating a certain crop or in doing some necessary work on the farm. A single letter or article is often the means of saving the parties more money,—many times than the subscription price of the FARMER; and yet thousands elect to grope along in the dark—hit or miss, generally miss—without a ray of light from the lamps of others who have gone before them. And they say it is all owing to inability to spare the money, the amount of a year's subscription. The same species of reasoning could with as much plausibility be applied to plowing the ground before seeding. A farmer could save a great deal of expense by planting the seed without preparing the soil. He would undoubtedly save the cost of plowing. That would be a clear gain in dollars, but he would lose by not reaping much grain. The cases are exactly parallel. Both save a few dollars in the first place but lose in the end for the want of information and a properly prepared soil.

THE KANSAS FARMER costs no farmer a single cent for subscription, because it reaches him how to get out of his business many times more than its price every year, and which he would not get without the information its pages impart. No farmer is too poor to subscribe for the KANSAS FARMER, unless he is too poor to own a plow.

The Farmer as a Politician.

Some farmers that we have known were great politicians—at least they thought so. They were willing to sit on the fence or a rock at the blacksmith shop while the team was presumably resting or being shod, and discuss "politics" in the most earnest, excited and positive manner, till, like the schoolmaster in Goldsmith's Deserted Village, the bystanders wondered "How one small head held all he knew." But when the much talking of these politician farmers was analyzed, it was in defence of their party and in advocacy of some lawyer or other noted professional office holder whom they had probably never seen. Not a single view or argument from a farmer's natural standpoint was taken. It was all from somebody else's standpoint. This is all wrong. Farmers should all understand politics and be well informed on questions of political economy, but they should study every political question from the farmer's standpoint. What influence or bearing will this or that measure have upon agriculture? Is the very best starting point for every farmer. It does not matter what party he may be allied with, if the course of investigation proceeds from this starting point there will be little diversity of opinion among farmers belonging to different political organizations.

The object of government is the greatest good to the greatest number, the protection of life and property, the encouragement of honest industry and morality, and the repression of dishonesty and idleness: an economical administration of public affairs, and a minimum rate of taxation. There are a great many vicious laws placed on the statute books by corrupt legislation and mercenary legislators, which are used, and intended to be so used, in squandering the public money, but by far the most prolific source of waste and corruption is the class of professional politicians which administer and construe the laws. They are always construed in the interest of large fees and expensive litigation, in the interest of high taxes and circumlocution, of endless delays and the multiplication of expenses, which means high taxes for the general or public treasury, and still higher taxes in the matter of legal fees for every man to pay who has any public business to transact. There has a class of men grown up under our system of government who are barmecides on the body politic, clogging the transaction of business while they devour the substance of industry. This class like the filth of the Augean stables should be washed out, and the many useless clogs which cumber the administration of public affairs pruned off to the great saving of taxes, of time and vexation to business men. The farmer being the main beast of burthen for bearing the heavy loads of taxation, which is consumed very largely in supporting the idle, inefficient and dishonest, it is the part of good sense and business principles for the chief payers of the taxes to be the chief disposers of them. In order to be fitted for this purpose

is absolutely necessary for farmers to study political questions from a farmer's standpoint. And the first step in this new school of politics should be taken by sending their best representatives, practical farmers of sterling integrity and intelligence to the legislature. The time is at hand when they should be about this work preparing material for next winter's legislature. The professional politicians and shoals of lawyers who swarm in every town are busy as beavers arranging their plans, and selecting men for farmers to vote for, who, when elected are expected to attend to the interest of every other class but that of farmers.

Secure Thorough Bred Males.

Now is the time to secure bulls, bucks, and pigs for grading up your domestic stock. The use of scrub males in your stock to breed from is a serious injury. The most of the young animals on the farm are brought forth in the spring. Males purchased now will be put to immediate use and your next season's crop of live stock, if the offspring of thorough bred males, will be worth, at six months old, fifty to one hundred per cent more than if you use scrub sires. There are several public sales of thorough bred stock advertised in the FARMER this week. Look over them and determine what you want, and if you do not feel able to invest in a whole animal confer with one or more neighbors and buy in partnership. Enter into a written agreement before purchasing, what proportion each man is to own of the animals, which one is to take care of and feed them thro' the season, or any length of time agreed upon, what the compensation for such care and feed shall be. One bull and one boar will serve half a dozen farmers for three years, and at the end of that time will sell for as much as the animals originally cost. The stock of each farmer at the expiration of that period will be worth per head a hundred per cent more than the same number of animals will be, bred from scrub males. When the original males are disposed of others can be purchased with the money the old stock has been sold for, and new blood of improved breeds being infused into your herds will give them size, health, stamina and beauty, which will be a surprise, gratification and profit which you scarcely dared to anticipate at the beginning. This is simple, practical, and the first step in co-operation which can be taken with as little risk as any business operation of daily occurrence, and which will put money into the pockets of every farmer who has the good sense and enterprise—as little as it requires—to attempt it. The thing is so self-evidently a profitable move, and the risk so small as to be unworthy to be classed among risks, that the marvel is that every farmer is not eager to form such an arrangement.

"Can't afford it!" The men who give this reason will be found ready to mortgage their farms for the loan of a \$1,000, for eight to twelve per cent and give a heavy bonus on the first year.

If you have not the ready cash to invest in thorough bred stock mortgage the farm for \$100 or \$150 and the improvement in your stock will pay principle and interest the first year. A hundred dollars each contributed by half dozen farmers will supply them with blooded males, except horses, to answer their purposes for three years. Such a departure from the venerable, old routine of risking everything on a crop of wheat or corn and buying costly farm machinery on credit, then in a state of chronic suspense, watch the sky and hope for rain, and keep repeating the stereotyped phrase, "If rain comes within—time we are all right," would be a step worthy our boasted advance in intelligence. This hoping for propitious weather is a ghastly comfort, and a state of suspense which no farmer is justified in subjecting himself and family to. This is emphatically a stock country, and because it will grow large crops of grain is no argument that grain should take precedence of all else. The shipper, the railroads and millers make handsome profits on the grain crop, the farmer gets a mean, hard living, and suffers all the anxiety resulting from the fickle humor of the seasons. With stock he can condense into a portable form the grain and grass of his farm and the adjacent range. Packing houses are springing up all over the west and bringing the market virtually to every farmer's door for live stock and its product. Raise annually the largest and best crops of that by using none but the best thorough bred males. In this learn to take the first step in co-operation and at no distant date the whole country will be "yours to command."

Letter from General Rice.

On our first page we publish an interesting letter from Gen. J. H. Rice, of the Miami Republican, giving an account of a visit to the Agricultural College and other matters. Gen. Rice is canvassing the state as the general agent of the Western National Fair Association, and is leaving no stone unturned to rouse a spirit of emulation among the counties in forming county displays for the fair, which will be held at Bismarck, near Lawrence, commencing on the 22 day of September next. No better man could have been selected for the position of general agent; full of enthusiasm, full of earnest work and possessed of great natural force of character, the magnetism of the man sits up public interest for the great agricultural display, where ever he appears. His report from Riley county is very flattering, and he makes a strong and earnest appeal to Shawnee county not to be found lagging behind other and less favored counties in this noble emulation. The exhibit by counties of farm products at Bismarck next fall will be more than a bird's eye view of the agricultural wealth and possi-

bilities of Kansas; it will be an epitome of the young giant's agricultural resources, and we heartily join the general in his earnest exhortation to the active spirits of Shawnee to put forth their efforts to present a display of farm wealth which will be creditable to the county of the capital, and attractive to strangers who visit the fair to confirm by ocular demonstration the wonderful stories they have heard and read of Kansas productiveness. The millions of books, reports, pamphlets, charts, maps and papers which have been scattered broadcast over the world to enlighten the public with a knowledge of the latent riches of Kansas soil and Kansas climate, have done their work and done it well, as the enterprising, intelligent and cultivated population, attracted to the state by this potent agency is the rich fruit of the prodigal sowing. And now the world desires to see a practical, visible proof of this written promise; and the exhaustless expedients and resources of her people are preparing to confirm those promises by ocular demonstration to the thousands who will visit the Great Western National Fair next fall. The prospective emigrant will there sample the state by the various county displays collected, and choose his location as the merchant decides his purchase of the cargo of grain by the sample placed for his inspection on the tables of the exchange. These county displays are the last and will be the most perfect advertisement of the agricultural capabilities of the state, spread out as a sectional map composed of the products of the soil. No geographer has ever been able to publish such a map of the counties, of this or any other state, as the people of Kansas have in their power to construct by the co-operative device of county exhibits. Let Shawnee show a collection worthy of the capital.

Don't Plant Hedge Seed in the Hedge Row.

A correspondent writes, "Say to that correspondent who wants to plant hedge seed where the fence is to stand, don't try it, as it is not the best plan. Raise the plants and transplant. He has tried both ways and succeeded best with the latter."

Kidd's Great Combination Sale.

We have received Mr. P. C. Kidd's catalogue of his great Combination Sale which commences at Kansas city, May 5th. Mr. Kidd will auction off some of the finest stock in Kentucky and Missouri at this great sale, comprising Short-horns, Poland China hogs and Cotswold sheep. As an auctioneer of blooded live stock, Mr. Kidd is without a rival in the west.

Public Sale of Short-Horns.

L. C. Stone, Jr., of Leavenworth, Kas., advertises public sale of short-horns in the FARMER. Mr. Stone has one of the finest herds in the west, and will offer some of his best animals at the sale next month. This will be a rare chance for farmers to supply themselves with breeding animals.

Messrs. Childs, Alexander and Smith, Independence, Mo., advertise public sale of short-horns, to take place also next month, which offer a rare opportunity for procuring animals from which to grade up herds.

P. C. Kidd holds his annual combination sale of blooded stock, commencing May 5th, at Kansas City stock yards. These sales are celebrated for the fine stock which changes hands at them.

THE FIRM OF MOSELEY, BELL & CO., whose extensive advertisement is displayed on the last page of the FARMER, have recently established their headquarters at Kansas City. These gentlemen mean business, and as will be seen by their advertisement are handling some of the best makes of agricultural implements and machines. Give them a call or send for circulars.

If you wish information in regard to one of the best and cheapest societies giving, to its members of both sexes equal privileges for improvement, and securing to each of its members in case of death \$2,000, write to E. J. Simons, D. N. S., M. P. A., Topeka, Kansas, or to Topeka or Larned councils, M. P. A.

A Meat Product.

The wisdom of converting the corn and grass of the west into meat for the European markets is well put in the following article which we excerpt from the Cultivator. After pointing out the uncertain dependence of the wheat crop the writer continues:

There are, however, two products for which we may expect a good market, provided they are made in a manner to suit the taste of the English consumer. And let us not forget that it is not so much the English farmers of the continent. Holland, Denmark, Switzerland, and Italy send large quantities of butter and cheese to England, and some of them buy wheat from us. America, for nearly forty years, has sent vast quantities of pork to England, compared with the exportation of which all other meats fall into insignificance. The English navy is victualled with American pork and mess beef, and her merchant vessels receive their stores from the same source. For forty years we have been building up this business of supplying the English market with pork, and have found it a permanent success. The past year has been eminently successful in a similar shipment of beef, but in this article we shall have a formidable rival in Australia. America grows, to a perfection unknown in any country, a crop which is the basis of the products already mentioned. We refer to the

corn crop, which will give success to the American farmer, as against all competitors in the English market. Converted into butter, cheese, pork, beef or mutton, it can be transported at small cost, and does not impoverish the land as the exportation of cereals will do. The demand for these products the coming year will be little, if any less, than those of the years which are past, and the probabilities are that it will be much larger, as business is improving. In England the laboring classes last year eat little butter, cheese, beef, or even pork, but now, being employed at remunerative wages, they will become heavy consumers of these products. There is still another consideration which we must not forget. During the past few years business has been dull with us. Articles which were considered a short time ago as necessities have been almost entirely dispensed with, and for these we may expect a returning demand and a larger home consumption.

While we look for a larger home consumption in many of the products of the soil, we may expect a larger consumption of articles which are the products of the artisans of Europe; and while we sometimes are led to boast how successful we are in competing with England in foreign markets, we are prone to forget how successful England is in competing with us in our own market. For the past few years the balance of trade has been in our favor, and gold has been flowing into the country and has set the wheels of our own industries in motion; the wants and necessities of Europe have been the salvation of America. But the tide has turned—gold is now flowing back, the balance of trade is against us, and now is the time for those who desire the permanent prosperity of the country to devise means to stay the outlet. Cotton alone cannot do it. Cotton and wheat, tobacco and corn, hitherto have failed in accomplishing this object, but these products in a more concentrated form may do much to stop this leakage, and to this end farmers ought to bend their energies.

Fodder Corn—Garget.

How would corn do in this section, sown broadcast or in drills, for stock feed? Would it be advisable for me to sow broadcast? Such feed is wanted for fattening stock in the fall and winter season. If you approve of such a way of planting corn, what is the best time to plant, and save it? How many cattle would ten acres of such fodder feed?

I have a cow four months calved. She has a flag or cake in udder, and one teat gives only a few drops of a thin, yellow milk. What would you recommend for bringing about a reaction? I bought the cow a few days ago, and drove her and calf four miles rather briskly. Calf still suckles the cow. The cow gives about three quarts of milk morning and evening, besides feeding her calf. Would you advise weaning the calf; he is strong and healthy, and can eat hay or grass?

By answering the above you will much oblige
A SUBSCRIBER.
Wabunsee Co., Kan.

Sowed or drilled fodder corn is a very popular feed in some sections of country, both as a soiling crop and to preserve for winter forage. The corn may be broadcasted any time in the month of May and harrowed in. About three bushels to the acre of seed will be thick enough. Drilling in rows three feet apart and about six inches or closer between the stalks in the row is probably the better way. The crop can then be cultivated as circumstances or time from other work will admit. This makes excellent green, or soiling feed when the grass is dry and old in the latter part of summer and early fall. When the stalks begin to ripen which will be indicated by the blades commencing to die next the ground, if cut with a machine, bound in small sheaves, and set up in open shocks, it will cure, when large shocks should be formed of the cured fodder, and bound tightly round the top with a rope either of twine or twisted hay or straw. Such shocks will shed rain and the fodder will keep better than in a mow or large stack.

The number of animals ten acres of such fodder will keep depends on so many contingencies that it would be difficult to approximate it. A wet or dry summer may make a difference of a hundred per cent in the quantity of fodder produced. You can better make this estimate after the crop is secured. Ascertain as nearly as possible the number of tons of cured fodder, and allow a pound a day for every hundred pounds of live stock; viz, ten pounds of fodder per day for an animal whose live weight is one thousand pounds. To this estimate add fifteen per cent for waste and other contingencies. It is safe to always provide more winter forage than you think the animals will consume, and then feed a little meal or corn along with the coarse feed through the winter.

The probability is that your cow will lose the quarter of her udder which is diseased. The case should have had immediate attention. Wean the calf, as its rough treatment of the udder will continue to aggravate the inflamed parts; bathe with warm water before each milking and when dry anoint with mercurial ointment rubbed in with the hand. Give the cow light, cooling feed, of which bran mash should constitute a part. Keep the animal low in flesh while the inflammation lasts. Wash and bathe the udder with water as warm as can borne by the hand always before milking, using a little castile soap to remove any portions of the ointment which remain on the surface. Keep the injured parts clear by gently drawing the milk three or four times a day. Keep the bowels open by light purgative drinks if necessary during the continuance of the disease.

The following is a good recipe for a mild purgative drink:
Epsom salts 1 pound, powdered caraway seed one-half ounce. Dissolve in a quart of warm gruel and give.

Rice Corn—Its Value as a Kansas Grain

We are still having it dry and wheat fields look badly. A good deal is past help, yet not one-half of the crop is ruined—about one-third is dead. The early plowed ground (and not too deep) looks the best, although a great many farmers are going east to raise a crop, fearing that we will not have rain enough; others are hard at work and putting in a large acreage. A good deal of spring wheat has been sown, and so far promises well. A large area will be planted to Amber cane this season, as the prospects are good that a large sorgo-sugar factory will be erected at our place the present season. In fact, they will commence to make sugar within ten days, mainly an experiment to get their hands in, as they have a lot of fine, well-grained syrup on hand to start with. They are investigating as to which process will give the best result, as every man has a new process and patent pans for sale. Not less than twenty have come to light, and they are all the best, and if they can make one-half of the sugar represented, Kansas can be the richest state in a few years.

I see W. of Smith county, Kansas, gives a vivid description of the qualities of Rice corn. I take issue with him and say he is off wrong, as he does not raise any substitute for it, as it is as much better for horses than corn, as oats is better than corn. It is not so hot a feed, but has more muscle-forming constituents for a horse to work on. I raised about five hundred bushels last year, (in the drought), and it averaged from twenty to sixty bushels per acre. I commenced to feed it to my team when it was soft, just out of the milk, and my horses gained from the time I commenced until they were hog fat, and they had but five days' idle time up to January 1st, working hard all of this time. It keeps a horse lively. As to hogs, I fattened seven head, and tried them repeatedly with both corn and meal, and they would not eat corn or meal when Rice corn or Rice corn meal was placed side by side. Again, my horses would not eat corn until all the Rice corn was eaten up, when fed together. As to the cuisine of the grain, it has too much starch to be used as most people make corn bread. It will be heavy but make good biscuit or batter cakes. The Rice corn will take the lead of all kinds of grain for the west, as there is no use for stalk-cutters. A harrow, when the stalks are dry and frozen, breaks them easily. As sown fodder it beats them all, casting pearl millet and corn in the shade, parties here having raised twenty tons from six pecks of seed drilled in the past season. Last, but not least, the stalks will make a fine syrup of lighter color than the Amber cane. If every new settler in the west would plant ten to fifteen acres of Rice corn, he would have lots of horse feed, and would not go back east among his wife's people, to escape starvation, as he can grow Rice corn whether the season be wet or dry.

S. G. DICKINSON.

Larned, Pawnee Co., Kansas.

Important to Book Agents.

Dr. Manning's long looked for object teaching Stock Doctor and Live-Stock Encyclopedia, with 1,000 pages, 400 illustrations and two charts, is announced by N. D. Thompson & Co., publishers, at St. Louis, Mo. It covers the subjects of Horses, Cattle, Sheep, Swine and Poultry, in health and disease, and is a work of such practical character and value as to be in great demand. A rare chance for agents.

Better Times.

The business revival and new era of prosperity which is now fairly inaugurated, is in keeping with the increased health and happiness seen all over the land, and is one of the results obtained from the introduction of Warner's Safe Kidney and Liver Cure, "The changes wrought by this remedy," says Rev. Dr. Harvey, "seem but little less than miraculous."

Letter From Illinois.

It has been so long since I wrote a letter for the old substantial FARMER, that I feel almost ashamed to make my appearance. But the FARMER comes so regularly each Saturday, that I feel constrained to renew my acquaintance with its columns.

The farmers are grumbling now over their fall wheat, which is very poor. I cannot blame them for so doing, and grumble as much as any when I think how I worked last fall, plowing and harrowing and drilling. Considerable spring wheat has been sown, and looks well at present. Oats are all sown; much drilled in this year. Drilling distributes the grain more evenly and covers it more uniformly than broadcast.

Everything needs rain very badly now. We had a dry summer last year, a dry winter and a dry spring this year. On account of scarcity of feed many cattle are in poor condition. For the same reason many have died during the winter. Prospects for fruits of all kinds are very flattering. Nearly all the peach trees were killed during the winter of 1878-79, but those remaining are full of bloom.

Some few horses are suffering from distemper; chickens dying with cholera. Hogs and sheep healthy. Poland Chinas and Berkshires are the principal breeds of hogs raised. Some Jersey Reds were imported from New Jersey by Mr. W. D. Lowary, a short time ago.

Wheat is \$1 to \$1.10; corn and oats, 25c to 28c; rye, 40c to 45c; barley, 60c to 85c; potatoes, 75c; butter, choice, 18c; eggs, 6c; chickens, per doz., \$1.75; fat hogs, gross, \$4; sheep,

choice, \$3; choice shipping steers, \$4.50. Horses are scarce and high, ranging from \$100 to \$125. Milch cows are plenty and cheap; from \$25 to \$30.

Many have gone from this neighborhood to make homes in Kansas. A good many of them settled near Great Bend, Barton county. I wonder if any of them are subscribers for the FARMER.

JOHN M. STARR.

Camp Point, Adams Co., Illinois.

More Improved Stock for Kansas.

We find the following in the Indiana Farmer, which, figuratively speaking, may be termed another block added to the great live-stock structure that is being reared in Kansas:

"Mr. J. T. Smith, Lincoln, Kansas, formerly of Anderson, Ind., in February, while on a visit to this state, bought from Mr. C. L. Henry, of Anderson, seven head, and of Dr. Stephenson, of Pendleton, Ind., two head of Short-horns; from Messrs. Rogers & Phillips, of Lebanon, Ky., a Jersey cow and calf, and a Jersey bull of A. Garrettson, of Pendleton, in all nine Short-horns and three Jerseys. These are all registered stock, of the best and most fashionable families. Mr. Smith is making an excellent start in stock, at his new home, the Cottonwood Glen Farm, Lincoln, Kansas. He is an honest and careful breeder and will make stock farming a success."

A brood sow is usually at her best, as a producer, in the number and quality of pigs as well as in the secretion of milk, when she is from two to three years old. The number of pigs dropped at a litter will usually increase with each successive litter up to the third or fourth, provided the sow is put to breeding so as to drop her first litter when she is about a year old, as is the custom with most breeders of swine. After the sow reaches four years of age, her powers of gestation usually grow weaker, and she is much less liable to save the pigs that may be dropped. Like all other general rules, there are exceptions to this, but under ordinary circumstances we would not recommend the keeping of brood sows by farmers who are raising hogs for the general market after they reach four years of age. The professional breeder of pure-bred stock may often find it to his interest to keep a favorite sow, and give her special attention so long as she will breed at all, because the exceptional value or reputation of her produce will justify him in keeping her for returns in number, which with ordinary stock would not repay the cost of food, but such cases rarely occur with the general farmer who breeds and feeds pigs to make pork.—Nat. Live-Stock Journal.

RUSSELL, April 10.—Weather here is very dry. The winter wheat is killed out badly, so that there will not be a fourth of a crop; hogs sold close, also wheat is nearly all sold. Immigration is light. This is a true statement as I have been over the county in the past few days.

P. J. WARNER.

AURORA, Cloud Co. April 7.—The weather in this section of Kansas during the first two weeks of March was very pleasant, and so warm until the middle of the month that the fruit buds started, and fears are entertained that peaches especially, are all killed. There are quite a number of orchards here which would have yielded fruit this year. We had a few pleasant days again, and farmers were busy sowing oats, planting corn, and talking of planting soon, when there was another change in the weather on the 26th and 27th. This time it was clouds of dust which fell instead of snow. On the 26th, in the afternoon, the wind came from the southwest and brought clouds of dust from that direction, and just at night it changed to the north, and we had another amount of dust again. During the night, and all day the 27th the gale was terrible hard. Some of the oldest settlers here say they never saw a dust blow so before; it was a sore trial to neat housekeepers—as it was impossible to keep the dust from sifting through the roof and settling on everything.

A few weeks ago a man in this township had the misfortune to lose his team of horses by the burning of his stable, and to-day there are eight or ten teams at work doing volunteer work, plowing his land for corn. At least half the plows running are sulky plows. It looks as if there was some charitable feeling among farmers here, to thus help an unfortunate member of community. The ground is in good condition for plowing and setting timber. Some have set out large extents of hedge and shade trees this spring.

Winter wheat looks very well, early sown looking the best at present; oats are up nicely. Stock of all kinds doing well, as far as we have heard; no disease of any kind among stock. Some have lost their chickens with cholera, which seems to be quite bad here at times.

Pork is worth \$3.00 to \$3.25. Potatoes are scarce and command a good price. Butter, 20c; eggs, 10c; and live chickens 4 1/2c per lb; good cows from \$20 to \$25; good work teams are scarce and in good demand.

PARSNIPS.—Boil until tender, scrape, cut lengthwise, and put into a saucepan with three tablespoonful of butter, a little pepper and salt, and a tablespoonful of chopped parsley. Shake until the mixture boils, take up the pieces carefully, and pour the butter over.

PRESSED VEAL.—To three pounds of veal allow one-half pound of bacon. Chop both until very fine; season with pepper and minced onion and press into a deep baking dish and bake slowly two hours. Serve cold.

PUFF OMELET.—Beat the yolks of eight eggs and the whites of four until very light, stir in a teaspoon of cream, in which a tablespoonful of flour has been mixed, and season with salt and pepper. Melt a tablespoonful of butter in a baking-pan, pour in the mixture and set the pan in a hot oven. When it thickens spread over the remaining whites beaten to a froth. Return to the oven and bake a delicate brown. Slip on to a large platter and serve at once.

Women As Lawyers.

Though old Mr. Foggy has long questioned women's fitness to practice law, and her opinions concerning legal matters, no one has ever questioned her opinion concerning Dr. Pierce's Favorite Prescription. For women freely affirm that the Prescription is a positive cure for those "dragging-down" sensations, and the many diseases and weaknesses peculiar to their sex. The Favorite Prescription is sold by all druggists under a positive guarantee.

Pittsburgh, Pa., March 14th, 1879.

Dr. R. V. Pierce, Buffalo, N. Y.:

Dear Sir: I was treated by four different

physicians without avail for disease of the liver and uterus. Some time ago I commenced the use of your Favorite Prescription and Discovery, being at the time confined part of the time in my bed. At first my improvement was slow, but I now find myself well after the use of four bottles of each of the medicines. With many, many thanks, I am, very respectfully,

MARY E. GRACE.

The sale of lands during the month of March, by the Kansas Division of the Union Pacific Railway company, formerly Kansas Pacific Railway, were 16,474 acres.

"Calf Boots cheap at Skinner's."

Is It Possible

That a remedy made of such common, simple plants as Hop, Buchu, Mandrake, Dandelion, etc., made so many and such marvelous and wonderful cures as Hop Bitters do? It must be, for when old and young, rich and poor, pastor and doctor, lawyer and editor, all testify to having been cured by them, we must believe and doubt no longer. See other column.

Wilbor's Cod-Liver Oil and Lime.—The friends of persons who have been restored from continued consumption by the use of this original preparation, and the grateful parties themselves, have, by recommending it and acknowledging its wonderful efficacy, given the article a vast popularity in New England. The Cod-Liver Oil is in this combination robbed of its unpleasant taste, and rendered doubly effective in being coupled with the Lime, which is itself a restorative principle, supplying nature with just the assistance required to heal and restore the diseased lungs. A. B. Wilbor, Boston, proprietor. Sold by all druggists.

We have examined the American Popular Dictionary advertised in our columns, and find it a good work. The definitions are brief, but very skillfully put, and there is a great deal of valuable and helpful material in the appendices. It is certainly a valuable book, and is very cheap for the price asked for it. We feared there might be some humbug about the advertisement, hence the examination of the book. We understand the parties are responsible.

From Chicago Interior, Jan. 29th.

Malaria Destroyed.

G. A. J. Gadbois, of Brookville, Canada, certifies that he was prostrated by a malarial disease contracted in Texas, and was quickly and completely cured by the use of Warner's Safe Pills and Safe Bitters. He adds: "I shall never travel in that climate without your Safe Pills and Bitters as a part of my outfit."

See Skinner's Shoe called "Economy."

"Brown's Bronchial Troches," when allowed to dissolve in the mouth, have a direct influence on the inflamed parts, allaying pulmonary irritation, and giving relief in coughs, colds, and the various throat troubles to which singers and public speakers are liable.

How to Get Sick.

Expose yourself day and night; eat too much without exercise; work too hard without rest; doctor all the time; take all the vile nostrums advertised, and then you will want to know

HOW TO GET WELL.

Which is answered in three words—Take Hop Bitters! See other column.

Mr. T. K. McGlathery of Topeka, has made arrangements to have his horses, Royal George, an English draft horse, and Kicapoo Ranger, at Silver Lake, Kas., the present season on the first three days of each week.

Plow Shoes at Skinner's, "212."

The Marsh ague cure never fails. Price only 75 cents—liquid or pills.

Wonderful Success.

"For curing severe colds and hard coughs your Golden Balsam is a success.—[S. Lockerby, Belle Plaine, Kansas.

"Your Golden Balsam has cured my cough; also my wife's. We think it is the best throat and lung medicine in the world."—[N. G. Rowley, Mound City, Kansas.

Marsh's Golden Balsam is for sale by Swift & Holliday, and W. N. Angle, Topeka, Kansas, and by all prominent dealers in the west. Regular sizes 50 cents and \$1.00. Sample bottle free.

A Good Piano.

Frank Leslie's Illustrated Newspaper says: A good piano at a fair price is one of the wants of the times. An instrument that is durable, that is substantially made, and has all those qualities of tone which make a first-class piano, can be had from the Mendelssohn Piano Co., New York, from \$150 to \$400. For over thirty-eight years their factory has been producing pianos, and adopting every new invention which has proved itself to be valuable. They can be compared by an expert with the instruments of the highest name and fancy price, and the result is surprisingly satisfactory. The piano is warranted for five years, and no purchaser has ever made a complaint. From personal knowledge and critical examination we can recommend any one to send for a catalogue to the above mentioned manufacturers.

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.

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.

Market s.

Markets by Telegraph, April 20.

New York Money Market.

GOVERNMENTS.—Quiet.
RAILROAD BONDS.—Unchanged and without special feature.
STATE SECURITIES.—Neglected.
BANK SILVER.—\$1 13 1/4.
MONEY.—Down from 6 to 3 per cent. per annum, closing at 4 per cent.
PRIME MERCANTILE PAPER.—5 to 6 per cent.
STERLING EXCHANGE.—B. B. week; 60 days, \$4 81 ght, \$4 86 1/2.

GOVERNMENT BONDS.

Coupons of 1881.....108 1/2
New 5 1/2% registered.....108 1/2 to 108 3/4
Coupons.....108 1/2 to 108 3/4
New 4% (registered).....108 1/2 to 107 1/2
Coupons.....106 1/2 to 107 1/2
PACIFIC SIXES—new 12%
MISSOURI SIXES—\$108
T. JOE—\$104.

St. Louis Produce Market.

WHEAT—Dull and unchanged.
WHEAT—Lower: No. 2 red, \$1 08 cash and April; \$1 08 1/2 to 1 09 1/2 May; \$1 04 1/2 to 1 05 1/2 June; \$1 04 1/2 to 1 05 1/2 July; No. 3 do, 1 04 asked; No. 4 do, 1 03.
CORN—Lower: No. 2 to 31 1/2 cash; No. 2 do, 32 1/2 April; 32 1/2 to 33 1/2 May; 33 to 33 1/2 June; 33 1/2 to 34 1/2 July.
OATS—Lower: 20c bid cash; no options.
RYE—Unchanged.
BARLEY—Unchanged.
PORK—Dull; \$10 45 bid.

St. Louis Live Stock Market.

HOGS—Dull; Yorkers and Baltimores, \$4 10 to 4 20; butchers, \$4 20 to 4 30; receipts, 5,000; shipments, none.
CATTLE—Butchers' grades active and steady; steers \$3 75 to 4 00; cows and heifers, \$2 50 to 3 25; shipping grades slow and weak; fair to choice heavy, \$4 25 to 4 50; exporters, \$4 50 to 5 00; feeders, \$3 75 to 4 10; stockers, \$3 00 to 3 25; Colorado steers, \$3 50 to 4 00; receipts, 2,100; shipments, 300.
SHEEP—Supply large and demand good for best grades; fair to good matrons, \$4 50 to 5 00; choice to fancy heavy, \$5 25 to 6 00 to 6 00; receipts, 4,500; shipments, none.

Liverpool Market.

BREADSTUFFS—Market heavy.
FLOUR—11s 1/2 to 11s 3/4.
WHEAT—Winter, 10s 3/4 to 11s; spring, 10s 1/2 to 10s 3/4.
CORN—New, 6s 1/2 to 6s 3/4.
CHEESE—7 1/2.
OATS—No. 2, 2s 1/2 to 2s 3/4.
PORK—6s 6d.
BEEF—7s.
BACON—Long clear middles, 8s; short clear, 7s 6d; LARD—Cwt, 27s 3d.

Kansas City Produce Market.

WHEAT—Receipts, 3,778 bushels; shipments, 1,217 bushels; in store, 23,335 bushels; market weaker and lower: No. 2, \$1 04 bid; No. 3, 94c; No. 4, 92c.
CORN—Receipts, 5,545 bushels; shipments, 4,712 bushels; in store, 123,415 bushels; market firm; No. 2 mixed, 28 1/2c; No. 2 white mixed, 30 1/2c.
OATS—No. 2, 2s 1/2 to 2s 3/4.
RYE—No. 2, 62c asked.
BARLEY—Nominal.
EGGS—Steady and unchanged at 7 1/2 per dozen.
BUTTER—Choice, steady at 18 to 20c.

Kansas City Live Stock Market.

CATTLE—Receipts, 764; shipments, 390; market quiet; native shipping steers, averaging 1,540 pounds, sold at \$1 60; butchers' steers, \$3 50 to 4 00; stockers and feeders, \$3 00 to 3 75; common, \$2 50 to 3 50.
HOGS—Receipts, 677; shipments none; market weak and lower: No. 2, \$4 10 to 4 20; No. 3, 40c; No. 4, 38c.
SHEEP—Receipts, 45; shipments, none; market steady and unchanged.

Chicago Produce Market.

FLOUR—Nominally unchanged.
WHEAT—In fair demand and lower; much depressed: No. 2 red winter, \$1 08; No. 2 spring, \$1 08 1/2; No. 3 do, \$1 08 1/2; No. 4 do, \$1 08 1/2; No. 5 do, \$1 08 1/2; No. 6 do, \$1 08 1/2; No. 7 do, \$1 08 1/2; No. 8 do, \$1 08 1/2; No. 9 do, \$1 08 1/2; No. 10 do, \$1 08 1/2; No. 11 do, \$1 08 1/2; No. 12 do, \$1 08 1/2.
CORN—Active but lower and very heavy; \$3 1/2 to 3 1/4c; No. 2 do, \$3 1/2 to 3 1/4c; No. 3 do, \$3 1/2 to 3 1/4c; No. 4 do, \$3 1/2 to 3 1/4c; No. 5 do, \$3 1/2 to 3 1/4c; No. 6 do, \$3 1/2 to 3 1/4c; No. 7 do, \$3 1/2 to 3 1/4c; No. 8 do, \$3 1/2 to 3 1/4c; No. 9 do, \$3 1/2 to 3 1/4c; No. 10 do, \$3 1/2 to 3 1/4c; No. 11 do, \$3 1/2 to 3 1/4c; No. 12 do, \$3 1/2 to 3 1/4c.
OATS—Dull, weak, lower and heavy; 28 to 28 1/2c cash; 28 1/2c May; 28 1/2c to 28 3/4c June; 27c July.
RYE—Steady and in fair demand; 77c.
BARLEY—Firm; 79c.
PORK—Dull, weak and lower; \$9 40 cash; \$9 45 to 2 1/2c May; \$9 67 1/2 to 3 60 June; \$9 70 to 70 July.
LARD—Dull, weak and lower; \$6 57 1/2 cash; \$6 62 1/2 June; \$6 67 1/2 July.
BULK MEATS—Easier; shoulders, \$3 90; short ribs, \$6 60; short clod, \$6 35.

Chicago Live Stock Market.

HOGS—Receipts, 18,000; shipments, 4,000; market opened firm and ruled fairly active; closed dull and weak; some common unsold; mixed packing, \$4 00 to 4 25; choice heavy \$4 30 to 4 55; light \$4 10 to 4 45; chiefly 4 40.
CATTLE—Receipts, 5,200; shipments, 2,200; market slow but not quotably lower; desirable lots steady; common to medium low; shipping, \$4 00 to 5 20; butchers, scarce and steady; common to good, \$2 00 to 3 50; stockers, \$2 80 to 3 20.
SHEEP—Receipts, 400; shipments none; market steady, western, \$4 40; good to choice, \$5 75 to 6 00.

St. Louis Wool Market.

Old: Tub-washed—choicest 60 to 65c, medium 57 to 58c, low and dingy 55 to 56c; Unwashed—medium 38 to 39c, coarse 30 to 35c, fine 28 to 30c. Burry, black and coated, 3 to 10c per lb less. Market quiet.

Chicago Wool Market.

Tub washed bright 58 to 60c per lb; do dingy and coarse 50 to 55c; fleece washed medium 55 to 58c; do fine 48 to 53c; do coarse 48 to 53c; unwashed medium 40 to 45c; do coarse 35 to 38c; do fine bright 30 to 34c; do heavy 25 to 30c; bucks' fleece 20 to 22c.

Topeka Produce Market.

Grocers retail price list, corrected weekly by J. A. Lee. Country produce quoted at buying prices.

APPLES—Per bushel	3.00
BEANS—Per bu.—White Navy	1.90
Common	1.50
BUTTER—Per lb—Choice	.18
Medium	.15
CHEESE—Per lb	12c to 15c
EGGS—Per doz	.60 to .75
E. R. POTATOES—Per bu.	.60 to .75
P. R. POTATOES—Per bu.	.70 to .80
SWEET POTATOES	1.50 to 1.75
ONIONS—Per bu.	2.00

Topeka Retail Grain Market.

Wholesale cash prices by dealers, corrected weekly by Edson & Beck.

WHEAT—Per bu. No. 2	1.30
Fall No. 3	.90
Fall No. 4	.80
CORN—White	.28
Yellow	.28
OATS—Yellow	.28
RYE—Per bu.	.30
BARLEY—Per bu.	.30
FLOUR—Per 100 lbs	3.25
No. 2	3.00
No. 3	2.75
No. 4	2.50
CORN MEAL	.90
CORN CHOP	.70
RYE CHOP	1.25
CORN & OATS	1.00
BRAN	.45
SHORT	.70

Denver Market.

WHEAT—Upward, 23 to 25c; bottom, 21 to 22c; bottom hay, 18 to 20.
FLOUR—Colorado, 3 30 to 3 50; Graham, 3 00 to 3 25.
MEAL—Bolted corn meal, 1 50.
WHEAT—2 00 to 2 15 cwt.
CORN—1 15 to 1 20 cwt.
OATS—Colorado, 2 20 to 2 25; state, 1 55 to 2 00 cwt.
BARLEY—1 15 to 1 18 cwt.
PRODUCE, POULTRY VEGETABLES.
EGGS—Per dozen, ranch 30 to 32c; state, 17 to 18c.
BUTTER—Ranch, 15c to 20c; creamery, 25 to 40c; poor, 8 to 15c.
ONIONS—4 1/2 to 5c per lb.
POTATOES—Divide, 2 25 to 2 40 cwt; Greeley Morton's 2 40; Greeley Early Rose, 2 50 to 2 75.
TURKEYS—Dressed, 15 to 18c per lb.
CHICKENS—Dressed, 15 to 16c per lb.

Topeka Butchers' Retail Market.

BEEF—Sirloin Steak per lb	12 1/2
" Round "	10
" Ribs "	10
" Fore Quarter Dressed, per lb "	6
" Hind "	7
MUTTON—Chops per lb	6 1/2
PORK—Roast "	10 1/2 to 12 1/2
POULTRY—Chickens, Live, per doz	2.00 to 2.25
" Turkeys, Dressed, per lb "	12 1/2
" Geese, "	10

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.

20 Gold and Silver Chromo Cards, with name, 10c. post paid. G. I. REED & Co., Nassau, N. Y.

50 Gold, Chrome, Tortoise Shell, Marble and Bow CARDS, 10c. HEAVY BROS., Northford, Ct.

Minnesota Early Amber Cane Seed

The best and earliest of all canes. Warranted pure. Sent to any part of the United States, postage paid at 50 cents per pound, prepaid. Address: GEO. F. THAYER, Independence, Kas.

EGGS! EGGS!

From large, finely marked Light Brahmas, as good as the best, at \$1 00 for 12. Chickens to the full. Correspondence solicited. T. & C. CLOUGH, Paw Paw Grove, Lee Co., Ill.

Notice to Sheep Men.

Any persons having sheep to put out on shares, or any other conditions, are requested to correspond with the undersigned, who has had much experience in the care of sheep. Sheep must be healthy. Range dry and rolling, supply of spring water ample, and fences sufficient to protect against wolves and weather. Satisfaction guaranteed. Address: JOHN HOLAHAN, Waverly, Coffey Co., Kas.

WARRANTED THE "BEST."

Send for descriptive circular. Address: JACOBS BROTHERS, Columbus, Ohio.

PUBLIC SALE

Short Horn Cattle

Southdown Sheep

AT KANSAS CITY STOCK YARDS,

May 12 & 13, 1880.

The breeders of Jackson county, Mo., will offer at public sale, without bid or reserve, at the Kansas City Stock Yards, May 12 and 13, 1880, 100 head of SHORT HORN CATTLE—80 bulls and 20 cows and heifers—and about 60 head of Southdown sheep, nearly all bred and raised in Jackson County, Mo., and are thoroughly acclimated to the western climate. TERMS OF SALE.—Cash or approved note at four months bearing interest from date at ten per cent. The following railroads will give reduced rates on cattle purchased at this sale, to all points on the line of the roads: The Kansas Pacific, Atchison, Topeka & Santa Fe; Kansas City, Fort Scott & C. & G. Kansas City, Lawrence & Southern and the Missouri Pacific. The above roads except the Missouri Pacific will give reduced rates to passengers attending this sale, on their return tickets.

Catalogues will be furnished upon application to J. T. Smith, J. P. Alexander or to C. C. Chiles, Independence, Mo., after April 10th.

Special attention is called to Capt. P. C. Kidd's combination sales on the 5th, 6th and 7th of May.

Vol. I. P. MUIR, Auctioneer.

The American Popular Dictionary

\$1.00 Only

This useful and elegant volume is a complete Library and Encyclopedia, as well as the best Dictionary in the world. Superbly bound in cloth and gilt. It contains every word of the English language, with its meaning, derivation, spelling, and pronunciation, and a vast amount of absolutely necessary information upon Science, Medicine, Biography, History, Law, etc., being a perfect Library of Reference. Webster's Dictionary costs \$2.00, and the American Popular Dictionary only \$1.00. "Worth ten times the money."

"N. Y. Times." "We have never seen an equal either in price, finish, or contents."—*Chas. A. Tappan*. "A perfect Dictionary and library of reference."—*Leitner's Atlas*, N. Y. One copy of the American Popular Dictionary (illustrated), the greatest and best book ever published, postpaid to any address on receipt of \$1.00. Entire satisfaction guaranteed. Two copies postpaid for \$2.00. Order at once! This offer is good for 60 days only, and will close as soon as money may be sent at once in a plain letter. Name this paper, and address: B. G. DEAN, 89 Metropolitan Block, Chicago, Ill.

How to Take a Humour.—Take of modesty a grain, of urbanity and good humor to which add good sense and plenty of love, with a virtuous heart and a pretty face. Better than a cosmetic to make the skin fair and clear, to bring bloom to the cheeks and light to the eyes, and remove Pimples, Boils, Eruptions, Sallow Complexion, thick, yellowish appearance of the skin and eyes, Bad Breth, Irritability and low spirits. Take Simmons' Liver Regulator in time. "I was sorely troubled with Boils on the neck and body that I was hardly able to move my head, and suffered great pain without being able to cure them, until I was induced to try Simmons' Liver Regulator, which entirely cured me, and I have had no return of them since, now over a year."

"JAMES M. CLEMENT, Agt. for So. S. Co. Phila."

SONGS, One Cent Each

121 The Little Bells, Duet.
122 The Little Bells, Duet.
123 The Little Bells, Duet.
124 The Little Bells, Duet.
125 The Little Bells, Duet.
126 The Little Bells, Duet.
127 The Little Bells, Duet.
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131 The Little Bells, Duet.
132 The Little Bells, Duet.
133 The Little Bells, Duet.
134 The Little Bells, Duet.
135 The Little B

Literary and Domestic.

Child's Trust.

BY JOHN C. WHITTIER.

A picture memory brings to me,
I look across the years, and see
Myself beside my mother's knee.

I feel her gentle hand restrain
My selfish moods, and knew
A child's blind sense of wrong and pain.

But wiser now, a man grown,
My childhood's needs are better known,
My mother's chastening love I own.

Gray grown, but in our Father's sight
A child still groping for the light
To read his works and ways aright.

I bow myself beneath his hand;
That pain itself for good was planned
I trust, but cannot understand.

I fondly dream it needs must prove
That, as my mother dealt with me,
So with his children doleth he.

I wait, and trust the end will prove
That here and there, below, above,
The chastening heels, the pain is love.

Hints to Be Remembered.

Remember to shake off and remove all dust from a black garment every time it is worn. Nothing sooner defaces a black silk, poplin or woolen, than to wear it shopping, riding, or even for a day in the house, and then hang it up without removing the dust. The gritty motes, with which the air is filled, grind and wear out any fabric. First shake both the dress and overskirt faithfully, then take a soft old handkerchief and brush the dress with that instead of a clothes-brush. See that all the dust that settles in folds and pleats is removed. Stand by an open window and shake the dust out of the window every little while.

Remember that lemons can be kept sweet and fresh for months by putting them in a clean, tight cask or jar and covering with cold water. The water must be changed as often as every other day, and the cask kept in a cool place.

Remember that mirrors should never be hung where the sun shines directly upon them. They soon look misty, and grow rough and granulated, and do not give back a correct picture. The amalgam or union of tin-foil with mercury, which is spread on glass to form a looking-glass, is ruined easily by the direct, continued exposure to the solar rays.

Remember that one can have the hands in soft-soap without injury to the skin if the hands are dipped in vinegar or lemon-juice immediately after. The acid destroys the corrosive effects of the alkali, and makes the hands soft and white. Indian meal and vinegar or lemon juice used on the hands, when roughened by cold or labor, will heal and soften them. Rub the hands in this, then wash off thoroughly and rub in glycerine. Those who suffer from chapped hands in winter will find this comforting.

Remember never to leave the clothes-line out week after week, and take them down and wind them on the reel as soon as the clothes are dry. With this care a clothes-line will last for years, but if left out, wind and rain will mildew and rot the line, and it will soon become worthless. Added to this, the clothes will be colored from the line, and dirty streaks, almost impossible to remove, will be seen where they rested upon it.

Remember that the wings of thrays, geese and chickens should never be thrown away. Many people, especially in the country, keep them simply to brush off the stove or range, but there is nothing better to wash and clean the windows. Chamois or buckskin is very good, but wings are better and do not cost anything, and their use is an economy—utilizing that which would otherwise be thrown away. They are excellent to clean the stove or hearth, to dust the furniture, but best of all to wash windows, because the corners can be easily and perfectly cleaned with them, leaving no lint behind as when cloths are used. Use these wings also to put on paste when papering walls. There is nothing that does that kind of work better.

Remember that a tablespoonful of black pepper will prevent gray or buff lines from spotting if stirred into the first water in which they are washed. It will also prevent the colors running in washing black or colored cambrics or muslins, and the water is not injured by it, but just as soft as before the pepper was put in.

Remember that if brooms are dipped for a minute or two in a kettle of boiling soda once a week they will last much longer. It makes them tough but pliable, and a carpet is not worn half so much by sweeping with a broom cared for in this manner. A good housekeeper will see that her brooms are all thus scaled.

Remember that a fine paste for scrap-books can be made from alum-water and water—a teaspoonful and a half of powdered alum dissolved in enough cold water to make a pint of paste. Pour the water, when the alum is all dissolved, on to flour enough to thicken it as stiff as common paste, bring it to a boil, stirring all the time, and when it is done add a few drops of oil of cloves. The alum prevents fermentation, and the oil of cloves will prevent or destroy all vegetable mold.

Remember that old newspapers will put the finishing touch to newly-cleaned silver, knives and forks, and unware, better than anything. Rub them well and make perfectly dry. They are also excellent to polish stoves that have not been blackened for a length of time.—*Christian Union.*

Washington Society in Jackson's Time.

In former years the wildest gentlemen used to spend their evenings in decorously playing

whist, with frugal suppers of broiled oysters, bread and cheese, and a glass or two of madeira. The rollicking Jackson men substituted poker for whist, and indulged in frequent libations of whiskey, while their supper tables were graced—according to the season—with a baked racoon, garnished with fried sweet potatoes, or canvas-back ducks, or shad broiled before a hickory fire on an oak board. Plantation tobacco was freely smoked in pipes, but few, except the members of the diplomatic corps, indulging in cigars.

Assemblies were held once a week between Christmas day and Ash Wednesday, to which all of the respectable ladies in the city who danced were invited. It was also customary for those of the cabinet officers and other high officials who kept house, to give at least one evening party during each session of congress, invitations for which were issued. The guests at these parties were assembled at about eight o'clock, and after taking off their wraps in an upper room they descended to the parlor where the host and hostess received them. The other men then went to the punch-bowl, to criticize the "brew" which it contained, while the young people found their way to the dining-room, almost invariably devoted to dancing. The music was a piano and two violins, and one of the musicians called the figures for the cotillions and contra dances. Those who did not dance elbowed their way through the crowd, conversing with acquaintances, and the men frequently taking another glass of punch.

At ten o'clock the guests were invited to the supper table, which was often on the wide back porch which every Washington house had in those days. The table was always loaded with evidences of the culinary skill of the lady of the house. There was a roast ham at one end, a saddle of venison or mutton at the other end, and some roasted poultry or wild ducks midway; a great variety of home-baked cake was a source of pride, and there was never any lack of punch with decanters of madeira. The diplomats gave champagne, but it was seldom seen except at the legations. At eleven o'clock there was a general exodus, and after the usual scramble for hats, cloaks and overcoats, the guests entered their carriages. Sometimes a few intimate friends of the hostess lingered to enjoy a contra dance, or to take a parting drink of punch, but by midnight the last guest departed, and the servants began to blow out the candles with which the house had been illuminated.—*Atlantic Monthly.*

Mr. Dodge's Success.

Our southern fellow citizens are accustomed to assert that the colored man has two glaring faults—that he will not work, and his presence casts a blight upon chickens that no white man can profitably engage in raising poultry in the southern states. Mr. James C. Dodge, who recently emigrated from Natick, Mass., to Laurelville, Ala., has signally refuted the popular southern estimate of the colored man, and has succeeded not only in keeping chickens, but in inducing thirty-four colored men to work for him without wages.

Mr. Dodge arrived at Laurelville last spring with the intention of cultivating a farm. The local white population received him courteously and wished him every success, but they warned him that he could not induce a single colored man to work on his farm except at preposterous wages. When he casually introduced the subject of chickens they assured him that there was an African church within a mile of his newly-purchased farm, and that he might as well try to keep ice-cream in a hot-house as to raise chickens in such a neighborhood.

Mr. Dodge was a stubborn man, and withal, an ingenious one. He determined to prove to the Laurelvillians that he could do precisely what they said he could not do. Accordingly, he offered to bet with Judge Slemmons that he would cultivate his new farm with colored labor, and that he would raise chickens without losing a single one by colored larceny. The bet was taken and Mr. Dodge went to his farm and began operations.

With the aid of the Laurelville carpenter, Mr. Dodge built a magnificent chicken-house, with accommodations for five hundred feathered guests. The windows were so small that not even a consumptive colored boy could pass through them, and the door was of unprecedented thickness and strength. In one side of the chicken-house Mr. Dodge required the carpenter to leave a round hole of about two feet in diameter, for a purpose which he declined to explain. Much pity was felt for him by his neighbors, on the ground that he was wasting his money in a vain attempt to struggle against the chicken-stealing genius of the colored people; but Mr. Dodge "guessed" he was all right, and "cal'lated" that his chickens wouldn't be stolen to any great extent. When the carpenter had finished his work and had gone home, Mr. Dodge unpacked a large bundle which he had received from the north, and after dark he filled his chicken-house with three hundred chickens, and locking it securely, went to bed.

About 11 o'clock that night a leading colored citizen of chicken proclivities made his way into the chicken-house through the hole which had been left open. He chuckled quietly at the folly of Mr. Dodge in locking the door, and at the same time forgetting to close the hole in the side of the chicken-house. When he had selected a dozen of the largest chickens he undertook to creep stealthily out of the hole, but found his egress impeded by a series of sharp and projecting spikes. He then realized that he had been in a trap of the same general nature as that pleasing variety of mouse-trap into which the mouse readily enters through a wire-lined passage, the pointed ends of which pre-

vent him from escaping. The leading colored citizen's estimate of white intellect underwent a sudden change, and he sat down gloomily in the corner of the chicken-house to invent some plausible tale which would account for his presence when the inevitable moment of discovery should come.

Half an hour later the minister of the colored church entered the chicken-house, and was warmly greeted by his predecessor, who was beginning to feel very lonesome. From midnight until dawn the arrivals were almost incessant. The fact that three hundred chickens were in Mr. Dodge's chicken-house was known in every colored cabin within a radius of two miles, and the oppressed race had risen as one man and resolved to have those chickens. At half-past three there was standing room only in the chicken-house, and gentlemen arriving after that hour were compelled to return home disappointed.

After a comfortable breakfast, Mr. Dodge took his shot-gun and the key of the chicken-house, and proceeded to ascertain what luck his trap had brought him during the night. To his great pleasure, he found thirty-four able-bodied colored men in the chicken-house, and, after the most careful investigation, he ascertained that not a chicken was missing. He put no unpleasant questions to the colored men whom he had caught as to why they had crowded into his chicken-house, but he merely informed them that he supposed they had come to assist him in planting, and that he was greatly obliged to them for their kind assistance. At noon Judge Slemmons and a dozen white Laurelvillians arrived at the farm, and gazed with amazement at the spectacle of thirty-four colored men working energetically in the field. When the judge was convinced that no chickens had been stolen during the night, he frankly admitted that he had lost his bet, and, borrowing the money from Mr. Dodge, paid it on the spot.

Since that day Mr. Dodge has never lost a chicken. He has, however, only caught a few sporadic colored men, and has thus been obliged to hire most of his labor. Nevertheless, he has successfully refuted the assertion that no white man can keep chickens in Alabama, and has on at least one occasion induced thirty-four colored men to work for him without pay. Whether his plan would be permanently successful if tried in other parts of the south is, of course, uncertain; but there is certainly good reason to suppose that it would greatly increase the security of chicken property.—*N. Y. Times.*

Glimpses of Fashion.

New petticoats have lace flounces alternating with jaconet in sections embroidered in bright colors.

The oddest of sunflowers are the helianths, which are white. They are worn with black gowns.

Five or six dozen buttons at six dollars a dozen, are among the adornments of some new gowns.

Sprigs when closely strewn over the surface of silk or cotton stuff are called "powderings," now-a-days.

Worth makes a Jersey from crosswise spun silk, placing no seams in the garment except under the arm.

Silk threads are woven into fine Florence straws in imitation of the colored strands in straw braids.

The sales of Easter eggs this year were three times as large this year as they have been in the best of former seasons.

Lace bonnet strings dotted with palm leaves of bead-work are newer than those simply sprinkled with beads.

Fair women believe violet with water-green, but brunettes have to blend it with yellow or look darker than mulattoes.

Cashmere lace when wrought with gold thread, makes an exceedingly pretty trimming for a black satin dress.

Polka dotted bunting and polka dotted cambric's hair are new stuffs that are pronounced prettier than Cashmere.

Imitation Mechlin lace is used in immense quantities on the new silk suits, Breton being left for the foulard costumes.

Velvet brocaded grenadines in heliotrope color combine the attractions of a fashionable tint and an elegant material.

Cambrics with black and blue grounds with little pin dots in blue, red and yellow scattered over them, are new but not pretty.

Pretty colored cambrics with white polka dots are made up for young girls. The proper trimming is Russian braid or Smyrna lace.

Bonnets of lace, laid in overlapping rows like straw, are among the summer designs. Roses and a gold pin or two are the only trimmings.

Nothing but imitation lace is used to trim the richest nannies. Plaiting and the heavy ironing necessary to set the plaits spoils good lace.

Handkerchiefs will be worn over the shoulders this summer, but they will not be of gingham like those of fishermen's wives, but of foulard.

Net work of gilt and chenille is laid over the crown of many of the new bonnets. The color of the chenille matches that of the satin or silk beneath it.

White is more in favor than any other color for trimming babies' hats. India muslin combined with Languedoc lace is used by the best milliners.

Feather borders will be used for rich summer dresses. Peacocks, blue jays, partridges and barn-yard fowls are all plucked to make this trimming.

Bands of ostrich plumage in three colors are the newest and most startling thing yet invented to keep one's neighbors awake in church. They are worn on the bonnet.

Garnet surah silk is made up with handkerchief capes of foulard, and draperies and cuffs of the same material, for ladies who want elegant costumes for the seaside.

Daisies, with sewing silk centers are among the costly novelties that one finds only at the best milliners'. They are durable, although expensive, and very natural looking.

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In answering an advertisement found in these columns, our readers will confer on us a favor by stating that they saw the advertisement in the Kansas Farmer.

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Farm Letters.

ARGYLE, Sumner Co., April 5.—183 miles southwest of Topeka. We are having fine weather at this time. Peach trees are in full bloom, and the prospect for a good crop of peaches is good, if nothing happens to them before May. We have had plenty of rain lately. Wheat looks well and is growing finely with the exception of the late varieties which have suffered by the dry winds of February. Do not think it will make more than half a crop. Oats are all sown and coming up. Some farmers are planting corn, although the greater part will be planted about the 15th of this month.

Wheat is selling for 80c to 90c; corn, 27c to 31c; potatoes, 60c to 75c. No disease among stock in this locality. Stock is looking well, although feed is scarce. Hay is selling at \$6 to \$7 per ton.

Some of our stock men removed their stock out of the state into the Indian Territory before the first of March, so that they will not be taxable. They will bring them up again in the fall to winter them. I think there should be a law to compel them to pay taxes on their stock in the state, notwithstanding they may have them in some other place at the time of assessing the tax.

THOS. NIXON.

CHEROKEE, Cherokee Co., April 8th.—When I last wrote to your paper I was a Kansas farmer in prospect. Now I am one in reality; have been here seven months, like the country tip-top. The weather is now favorable for work. Oats and flax are about all sown; plowing for corn and castor beans is progressing rapidly; some are planting corn now, but I think it won't grow much until the weather is warmer. The prospects for wheat is still very flattering at present. It covers the ground and is very near jointing.

Fruit in this section is not hurt. The peach blossoms are falling off. All fruits are going to bloom full, and the outlook is encouraging.

I consider the KANSAS FARMER a wide-awake paper for me, and think no farmer can afford to be without it.

S. M. COGHILL.

MARION CENTRE, April 2.—85 miles SW. from Topeka. Last spring I planted some artichokes on ground that had been in potatoes four years, the potatoes heavily mulched each time and the mulching plowed under. After plowing we did not have rain enough to wet the depth of plowing till midsummer. The artichokes grew seven or eight feet high, but when I came to dig them were almost a complete failure, not giving one-fourth as much as early rose potatoes on the same kind of ground.

Our county has been badly scourged by chicken cholera the past six months. I have never lost any by cholera, and as usual came off clear this time, while many have lost all they had, and my tenant on the same farm, with their chickens not ten rods from mine, have lost nearly all they had. I attribute my success generally to changing male birds every year. Last fall when my neighbors' chickens began to die, I began to feed mine a mush made by putting boiling water on chopped corn and barley, equal parts, with sometimes an addition of a portion of wheat bran or shorts, and each day or two a large spoonful of red pepper to fifty hens. That was my feed each morning, fed hot. They gathered corn about the yards during the day, and at night had a feed of whole barley. Such has been my treatment, and my hens have been fat, in fact almost too fat, and laid well.

Last year I received a sample copy of a poultry journal, and from one short article got information worth more to me than the price of the journal for a year, so I have subscribed for it myself this year. I don't see how any farmer can get along without an agricultural paper. I have often found single articles worth the price for the year. The old KANSAS FARMER I consider among the best.

Wheat needs rain badly—have not had a shower since January, although I have seen them pass on each side of us. This is a good time to look at the wheat fields and compare the difference between early and late plowing. Farmers busy planting corn.

J. B. DOBBS.

TONGANOXIE, Leavenworth Co., April 10.—50 miles ENE. of Topeka. Peach trees in blossom; think peaches are not killed by frost. Winter wheat looks well, though in some fields it is killed in spots by the hessian fly and frost. Oats sown in the fore part of March look fine. Some farmers sowed their oats in April, rather late.

In the spring of 1870, Feb. 14, I sowed 12 acres to oats (40 bushels), harrowed three times. We had winter weather three times after I sowed my oats; snowed, froze the ground, thawed out, froze again. Some of the oats were killed by freezing, but enough was left, and branching out like winter wheat made the best crop I have raised in Kansas on upland, though have raised more to the acre on bottom land.

I mulched some potatoes in May last year; planted peach blows immediately after mulching. From those not mulched I did not get the seed back; those that were mulched turned out fine.

Kansas farmers especially should by all means take the KANSAS FARMER. The money invested in the FARMER brings good returns.

E. H. KECK.

NAOMI, Mitchell Co., April 9.—The principal topic of conversation between farmers at the present time is the condition of the fall wheat and the dry weather. Both cause a great deal of anxiety. We have not had rain enough this spring to wet down over two inches, although a few miles from here there has been a very heavy rain. Two days ago I went to Beloit, 13 miles from here, and I did not see an acre of good fall wheat. The best that I saw was a small piece, of perhaps one acre, that was drilled in last fall on stubble ground without plowing. A neighbor remarked to me that he thought it would be a very good plan to drill in wheat on the stubble, by plowing once in two years. If any of the readers of the FARMER have had any experience in that way of raising wheat I would be glad to see it given through "our" paper. For the last two days I have been rolling my wheat. I have eight acres that was plowed in August, and sowed with drill on October first; that is good for this year, looks green and nice. Twelve acres right by the side of it, plowed and drilled the first part of October is very badly killed. I have learned this, that where the ground was most mellow and loose there the wheat is killed the most. I harrowed all my ground before I used the drill. I had many I would have lost all my wheat, as have many of my neighbors, who sowed right on to the fresh, loose plowing, without using either harrow or roller. By the way, some of the best wheat in this part was sown with drill, after a good roller. In August I plowed under some five acres of wheat that was not out, (all my wheat is grass wheat) and harrowed afterwards. It came well, even too thick, in many places, but nearly all killed out during the freeze of February 27 and 28. I wish some one would tell me why that was killed worse than that plowed and harrowed at the same time, but sowed with drill two weeks later.

To-day was real warm. The surface of the ground was warm, and I found quite a number of chinch bugs. They seemed to be in good health, and to be as full of life as though we had not had any winter at all. The mild, dry weather has been very favorable for them, and I fear the result unless we get a good heavy rain.

Potatoes are very high with us, have been as high as \$1.20, but several car loads came in from Iowa, and good peach blows are now worth only one dollar. Quite a large acreage has been planted, nearly all early rose. I wish to ask when is the best time to mulch potatoes to secure a good crop.

Some of our farmers are nearly ready to plant corn.

others have stopped the plow waiting for rain. Wild plums are nearly out in blossom; our peaches are nearly all killed. Some gardens begin to look upward. Cattle and hogs are looking quite well. Wild grass begins to show itself.

While going to Beloit I saw three flocks of sheep numbering 260 to 300, now feeding on the prairie and looking real well; lambs were quite numerous. One of these flocks was brought from Wisconsin last fall, and one from Colorado. They wintered real well and bid fair to be a source of profit to the owners.

There is a disease among horses, called Texas itch, that is causing some uneasiness among the farmers. It seems to be confined principally to the horses owned in town, but is beginning to spread through the country; though the cases are not numerous. I wish some one who has treated the disease with success would give mode of treatment, also tell us if there is any way of preventing the spread of the disease. Is there danger of the disease being taken by the human family?

Some farms are changing hands occasionally. One place of 160 acres with some improvements, sold a few days ago for \$1,055. Others ask from \$600 to \$1,600, according to location and their improvements. Those who sell usually go farther west. The frontier seems to suit some people better than a community where there is good society.

F. W. BAKER.

NORTH CEDAR, Jackson Co., 22 miles north of Topeka. At this time we are having nice spring showers. We have not had much rain since the first part of winter, and the earth is in a condition for receiving a large supply. Weather warm; cranes flocking northward, and cattle grazing on the green hills are unmistakable evidences that spring is here, even at our doors. Farmers are well up with their work if not in advance of the season, some having sown oats a month ago. Wheat on sod looks well; on old land badly frozen out, except where hardy varieties were sown and favorably located, which look very well; bottom and south hillside the best. Usually wheat does well here on all locations, but last winter was hard on the crop. Being but little snow, with very heavy rains in early winter, followed by freezing and thawing made the wheat heave, the like which we seldom see in northern Kansas. Last season old land wheat was the best, as snow covered the ground six weeks the previous winter. There is but little spring wheat raised here, but what we see looks well. Drilled wheat with few exceptions looks the best. Drilling is far preferable to broadcasting, and almost universally practiced. The yield is from eight to forty bushels per acre. Last year I sowed a forty acre field to wheat, consisting of three varieties, the Little and Big May on the sides, and White Clawson between. The three pieces were sown at the same time and all looked as one solid piece in the fall, but now can be easily distinguished apart. The White Clawson stood the winter far the best, Little May next.

In this part the soil is good and country very attractive to the immigrant, laid out in beautiful hedged farms, with bearing orchards and good buildings of all kinds, with plenty of good range for stock where they can run out on the prairie and fatten unmolested, which offers inducements to the farmer and stock raiser not surpassed by any other section of the state. This part is settling up rapidly with an industrious class of farmers, among whom is a colony of Germans from Lancaster county, Pennsylvania, who settled here after their committee men had visited various counties of the state. They are industrious, well-to-do farmers, have made a good choice in locating, and have been paying as high as twenty dollars per acre for some farms.

Now, or previous to this, is the time to put out trees and cuttings north and west of barn and feed lots, which will make nice timber belts for windbreaks. There is plenty of timber here to answer all purposes. I can readily see the quantity exceeds that of sixteen years ago. Strange that farmers are so slow in fencing their timber for hog pasture, and to set in blue-grass. Osage hedge does well here.

The prospect for fruit of all kinds is good, and the farmer commences the spring of 1880 with golden evidences of a rich harvest in the future.

The KANSAS FARMER, the farmers' friend, should be in the household of every tiller of the soil. It is safe to assert that if farmers had received the advice and heeded it, that was offered them on lightning rod swindling agents alone, over a year ago, by the FARMER, they would have saved enough in the aggregate to have paid for the paper one year for every farmer in Kansas.

W. A. DOWSON.

PLAINVILLE, Rooks Co.—There was a fall of snow here the 18th of March two inches deep, with the exception of two light trackings of snow, it is all we had during the winter. We have had no rain since November. The most of the late sown fall wheat has come up and looks well considering the drought. Some of the early sown was winter killed, but there is a good stand on the ground yet. We will have a fair crop of wheat if we get rain soon. There is more moisture in the ground than any one would suppose. The plants are running, and a great many early are being plowed, both of fruit and timber. Fruit gardens are made. The acreage of sorghum, Egyptian and broom corn will be increased this spring, and a large amount of millet sown. I notice there is a great deal said through the FARMER, as well as other papers, about the Amber sugar, but I am compelled to defend the old sorghum. It equals the Amber on all points, and makes the best molasses; as far as granulating is concerned one doesn't go to sugar more readily than the other. The great recommend is simply a speculation. I put myself to considerable trouble to get the seed last year. When I found it it proved to be a worthless variety that I had abandoned years ago. By careful investigation I found there was more than one kind sold for the Amber. I obtained a 4 pound package from the Department at Washington, and was rather surprised to find that I had two packages of the same seed on hand already, but of different names. I first got it in Osborn county. It was known there as the Hovey cane. I recognized it as a new variety that was raised in our neighborhood, known as the Black Top. I planted all kinds side by side and offered the crop to my neighbors if they would separate it, but no one could tell the difference. There was a large amount of the seed sold here. One man bought \$15 worth for himself and neighbors, and he had over 100 gallons of the same cane worked the season before. So much for the use of printer's ink. I recognize it as the second best variety and nothing more. I find the man that is selling the most seed was selling a patent stalk burner which proved worthless. Those who bought them naturally fell back on wood.

One of your correspondents wants to know about raising chuffas in Kansas. They have done well with us the last two years. The seed should be sown before plowing, or they may not come up evenly. They make good grazing for stock which is said to benefit the crop. They are very productive without being eaten off. The chickens don't eat many of ours. We like them too well ourselves. One seed is enough to a hill and twelve inches is close enough. I prefer planting in rows so they can be run through with the cultivator. I think a daily supply of water would be a better preventative of chicken cholera than chuffas, also artichokes would be more profitable to feed hogs. They both seem to produce well.

We would like to have some information in regard to alfalfa clover. We have known it to be sold which proved to be the old fashioned sweet clover that is raised back east for ornamental purposes. It is a great honey producing plant. Are they the same, or were we humbugged?

V. S. HAWK.

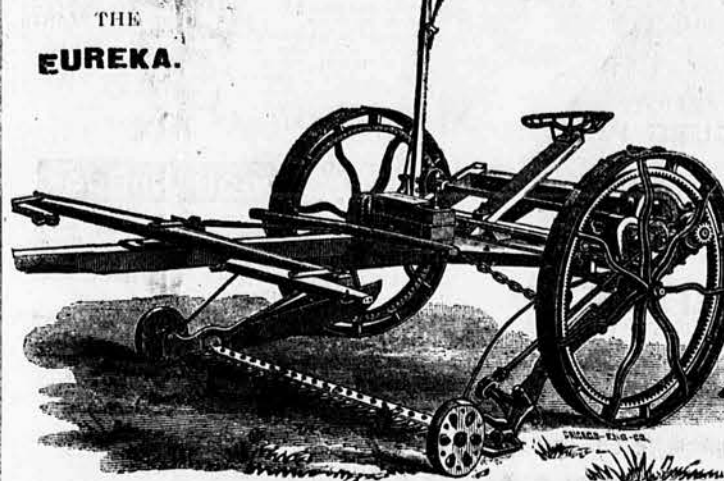
The honey plant is the Alsike clover, and not the Alfalfa.—[Ed.]

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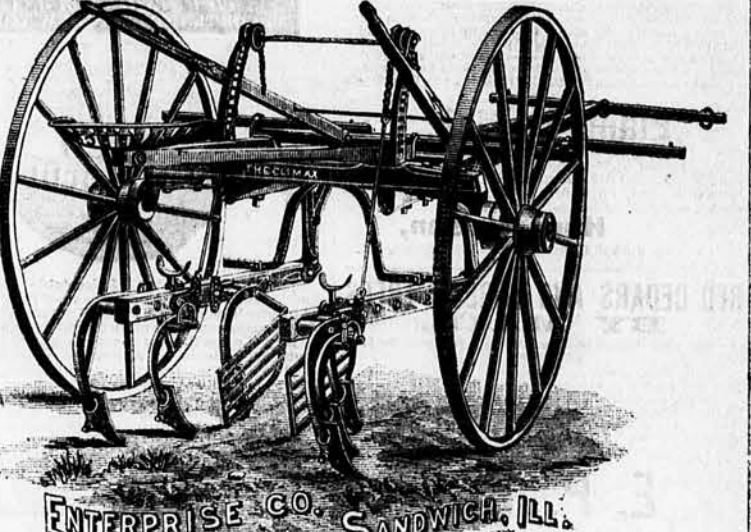
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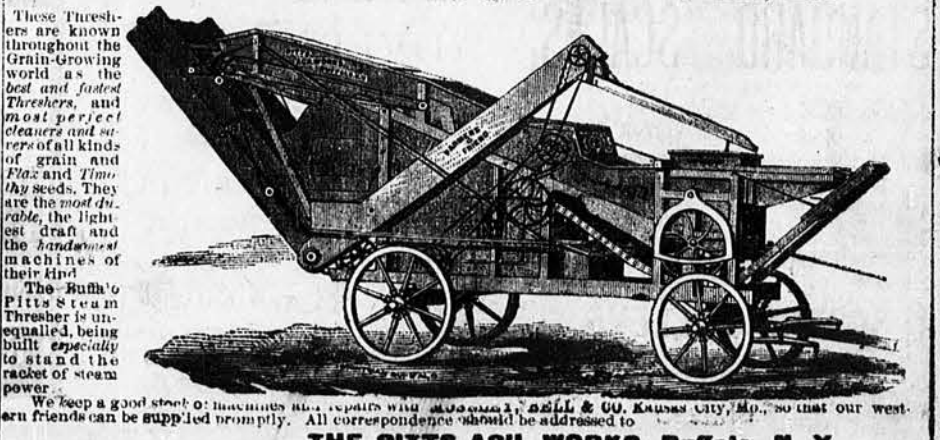
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