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J. K. HUDSON, Editor & Proprietor, Topeka, Kan.

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Horticulture.

For the Kansas Farmer.

TREELESS PLAINS.—Concluded.

BY C. W. JOHNSON.

Such I claim to be the general law of our seasons. There are many indices which forecast, in the fall and early winter, what is going on in the heavens above; but in the absence of exact data, "measure and weight," those criterions of the true man of science, these must be necessarily so much of opinions and estimates, that they are not reliable for prescience, thought excellent for guessing, on the side of the weight and probabilities. Some what as "Old Probabilities" (young General Myers) guesses at the daily variations of the weather a week in advance. The writer has guessed at the corn crop now four successive seasons, with excellent success, making his guess as early as corn planting time, though he lost much caste as a prophet by guessing drouth of the past season, would strike as early as June 20th, and abundant rains which fell between that time and July 4th, from a snowfield reported light, give the "moon sign" folks their day's triumph over him, and almost shook his faith in the doctrine of the immutability of God's laws, and to raise a suspicion that a sufficient amount of "flopping" might bring rain whether there had been any snow in the mountains or not.

There are certain facts connected with our rains and snows, which I think observers may verify, if they have not done so, which will be of interest, doubtless, when grasped together. Our common rains nearly all follow a stiff warm breeze from the south, the easterly inclined the more certain to bring rain; four days of such winds general being sufficient. The rain clouds rise against this wind from the north and northwest, the latter prevailing, the south wind calms from a few minutes to a few hours before, and with the falling of rain we find the wind is cool from the north to northwest; and the storms clear up with the wind in that direction, if the rain is over.

Our snows generally fall from a south wind, which is either at the surface or as an upper current, and when, which seems to be a northern snow storm comes, and the snow in its fall is driven southward, a close examination, will at the beginning of the storm, show that there is an upper warm current moving northward over the lower north wind.

The highest clouds of our sky, are the light cirrus clouds, making a sort of marked sky. These, so far as I have noticed, are from the southwest, and seldom bring any rain or snow. They are doubtless, light fragments of Pacific vapors, that are borne above the back bone of the Rocky Mountains by a portion of the more elevated return trades of Pacific tropics. Another fact seems worthy of calling attention to, it is that, a winter which sets in early is apt to be cold, and if the mean temperature of the winter by the middle of February has fallen low, and great banks of lie a few hundred miles north of you, the spring will be cold and backward, and as I said probably wet, if the snow is considerable in depth and area. This is upon simple logic. As the sun emits about constant quantities of heat, a cold snow plain can not by those emissions be thawed out and dried up so quick, as some plains would be, if they had a temperature ten degrees higher, and half the moisture to dry up.

Such are some of my views upon the great "Treeless Plains," and its cognate, their meteorology. While these articles have been long, they have been much too short to do full justice to the subject. They seem to me to present the case fairly though imperfectly, and while it may be of doubtful utility to urge the entire discontinuance of tree planting for forest purposes, it does seem to me that the reckless and inconsiderate planting extensively of kinds not known to be hardy to our climate is much to be deprecated, and that we are not deserving of that untimely abuse which our eastern friends heap upon us for not planting these prairies all over with trees.

If these papers shall in some degree promote a careful and considerate research into the matters discussed, the writer will feel amply repaid for the effort. If they are deemed idle and visionary, he will feel that his duty is dis-

charged, and will live with the hope that those organized farmers now assuming control of the country, will reform the press as they do railroad monopolies, and make them report the weather as they do money and the markets. Then one of their greatest evils—the uncertainty of crops may be in a great measure, obviated.

Another means by which our climate may be greatly ameliorated if not brought into subjection, and which the Grangers can do no better than add to their demands, is public provision for a general system of irrigation. From the upper Missouri, the Platte, the Kansas, the Arkansas and the Red, abundant waters flow, in their floods, to redeem our climate from its dryness; if by a proper system of hydraulic mains, they were reserved and distributed through out the area. The low divides which separate these streams are easily surmounted, and a line of constant elevation may be found, by bending towards the southwest. These streams and their tributaries flow in the valleys; they should be diverted from their course, and the hydraulic mains carried across the minor divides, at their highest possible elevation permitting flow, while subordinate courses should run on the tops of all minor ridges. The principal canal, by which the above named stream are trained to flow on a highland near the foot of the Rocky Mountains, being of national importance, and two or more collateral canals running parallel, but lower down should be constructed by the general government, while cross mains should be constructed by the states in which they lie; and the minor ditches by counties, townships, etc., according to the generality of the benefits. The difficulty of confining these waters in the loose soils may be urged. Of course much of the water would filter away, through the porous bed, but it would not be lost, being distributed from the crests; the great benefits would be those arising from percolation, the hill sides and valleys being kept moist by these means, while the streams crossed, would be called on to replenish the supply.

As commercial avenues, I think, these canals would possess no value, and as means of transit should not be attempted. We want these waters to filter away and evaporate, to redeem our land from drouth. The demands of irrigation and the demands of commerce would be conflicting. Of course, many mill wheels could be turned by these waters without injury to agriculture. Timber for fuel and fabrication would in a few years beat our doors. Having our crops assured us, the accumulation of capital following, would seek investment in home manufacturing; and so by the building up of a great interior civilization, not dependent upon east hands for markets and manufactures, solve the problem of cheap transportation in part, by setting consumer and producer face to face in contiguous towns; through the plains might not become the valparaiso, or elysian fields of our senator's fancy, exciting the envy of the Gods, they would be fit habitations for men, where labor would bring remunerative reward, and the desert blossoming as the rose send up as incense the benisons of peace and plenty.

By way of the Toledo, Wabash and Western railroad, from St. Louis to Decatur and thence to Springfield, we traverse a fine country, perhaps equal to any other portion of Illinois; but considering the age of the settlements and the wealth of the people, I was disappointed in finding it in many things so little ahead of Kansas. There are many large farm houses, but barns and outhouses do not correspond; and the evidences of taste and knowledge in the way of shade trees, windbreaks, etc., do not excel, if they equal, those seen in portions of Kansas. Very few of the farms had evergreen trees, and although much of the region was prairie before made into farms, but few forest trees of any kind have been planted. A few windbreaks were observed; some of which appeared to be of the white willow, and had apparently been planted for hedges some years ago, when this tree was so strongly recommended for that purpose.

Many osage hedges were seen, but I cannot recall a single line of hedge that appeared to have been well attended to. All this was surprising in a state where horticultural societies and writers—Bryant, Schofield, Phoenix, Edwards and others have done so much to instruct us in forest planting and hedging.

The city of Springfield has trees along most of her streets, and in the grounds about the houses. Many of the street trees are elms and maples of considerable size, and in summer must and greatly to the beauty and comfort of the people. If residents of our Kansas towns will inquire of the Springfield people what they would take for their trees, we can get an estimate of what it is worth to have like trees in Kansas. No investment by the people of a town pays better than transplanting trees. The black locust is seen in Springfield, with old trunks ten to twelve inches in diameter, perforated by borers. These dead trunks have been cut off at about eight feet from the ground; and around them the new wood has grown strong enough to sustain large heads, the new trunks and branches apparently not assailed by the borers. The old dead trunks, eaten as they are, would yet make good fence posts. It may be that as the borers increase some cannibal insect is sent to make war on them. At all events, I still say, plant locust in Kansas.

In the denser parts of Springfield, white pine and Norway spruce, which seem to be the favorite evergreens, had a remarkably starved appearance, but near the outskirts they looked better. I cannot account for their condition. The American arbor vita-

does better; but red cedar does not flourish as in Kansas. Very few Austrian or Scotch pines were seen, but those noted seem to do better than any other evergreens. It is a curious fact, that these two foreign trees (Austrian and Scotch pines) have done better on the plains than any of our native conifers; and I think experience tells the same story in Illinois.

The few larch trees observed in Springfield do not recommend that tree as a rapid grower. My experience with European larch is not in its favor as a tree to be largely planted in Kansas, and in this Mr. Kelsey will no doubt concur.

The winter wheat looks well in Illinois, but not better than in Kansas, and in many fields not so well. That looking best seems to have been earliest planted; but exactly where to sow winter wheat in Kansas, I have not yet learned. Sowed October 20, 1870, in Ellis Co., and November 11, same year, in Ellsworth county, I had a fine growth. Sowed September 1, 1871, in Ellis county, (none tried in Ellsworth) I had a good crop. But in 1872-73, the winter was so dry that wheat sown at Ellis, in September, and which had made a fine start, was lost before March; although the farmers in Ellsworth county had good returns. I think the danger to wheat is in the dryness rather than temperature of the Kansas winters in the central parts of the state; and as a general rule, early planting—from middle of August to middle of September—is probably best. The virgin soil of Kansas is better adapted to wheat, I think, than that of Illinois and "year in and year out" the climate of at least the east half of the state is equal if not superior to that of Illinois for this crop.

Coming back to trees, let us have another word for the cottonwood. Dr. Warden has told us how extensively this American tree is planted for shade in Vienna, and other cities of Austria. And now, comes M. Van Hulle, curator of the Royal Botanical Gardens at Ghent, writing as follows:

Many kinds of trees, chosen for planting avenues, public promenades, etc., either do not accommodate themselves to all kinds of soils, or else require an inconvenient length of time to attain to such size and development of foliage as will afford the desired shades. In consequence of this the Canada poplar (*Populus Canadensis*) has been largely planted about Munich and other places in Germany. This tree grows quickly, and in almost any kind of soil. Its only defect as a shading tree, is that it sometimes, if left to itself, shoots up in too spired (?) a form to be available in that way. This, however, is easily guarded against by heading down the young trees to the height of from 12 to 15 feet, and paying some attention to the pruning of the branches for some time, so as to secure the formation of handsome crowns. Treated in this way the trees are quite as effective at some distance as well-grown specimens of horse-chestnuts.

Populus Canadensis is no other than Kansas cottonwood, under the botanical name given by Linnaeus. The modern botanical name is *Populus Moniliformis*. Linnaeus had in view locality, and modern botanists the form of its blossoms and seeds, in giving the specific name. If the tree were a foreigner, we should all want it. Three years ago, a gentleman brought to the attention of the Kansas State Horticultural Society the white poplar of Wisconsin (*Populus Grandidentata*) or large aspen, as probably suited to Kansas. I got it and tried it in Ellsworth and Ellis counties, but only to learn that it not equal to the other white poplar, called "Abela" (*Populus Alba*) of European origin, and not superior to the Lombardy poplar. It probably would do better in the eastern parts of the state; but for Ellsworth or Ellis counties, where the cottonwood do well, the Wisconsin poplar is not worth planting. In fact, (and Kelsey will agree) no tree of the *Populus* family deserves to be named in the same day with the cottonwood, for planting in Kansas. I state this to save the farmers from useless experiments. I feel assured Mr. Kelsey will concur, and I hope he will say so in your paper. In this way, if our experience is worth anything, we can benefit others.

Clean Out Stables and Barns and leave no cobwebs. If you are a slovenly man and do not know how to "tidy up," get your wife to show you how.

Push things the coming season. Times will be better. Produce will be higher. Raise all you can and get ready for the work now. Be hopeful, energetic, systematic, and industrious, and you will find farming pleasant and profitable.—American Agriculturist.

NOTES BY THE WAY.

BY H. B. ELLIOTT.

By way of the Toledo, Wabash and Western railroad, from St. Louis to Decatur and thence to Springfield, we traverse a fine country, perhaps equal to any other portion of Illinois; but considering the age of the settlements and the wealth of the people, I was disappointed in finding it in many things so little ahead of Kansas. There are many large farm houses, but barns and outhouses do not correspond; and the evidences of taste and knowledge in the way of shade trees, windbreaks, etc., do not excel, if they equal, those seen in portions of Kansas. Very few of the farms had evergreen trees, and although much of the region was prairie before made into farms, but few forest trees of any kind have been planted. A few windbreaks were observed; some of which appeared to be of the white willow, and had apparently been planted for hedges some years ago, when this tree was so strongly recommended for that purpose.

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Farm Stock.

For the Kansas Farmer.]

BLACKLEG IN CATTLE.

RENO, LEAVENWORTH CO., KAN.
March 4, 1874.

MAL. J. K. HUDSON, 'DEAR SIR:—Noticing the inquiry in the FARMER as to the treatment of Black Leg and as a similar disease has prevailed to considerable extent in this vicinity, I wrote to the Hon. H. J. Jewett, M. C., from Ohio, for any information that might be obtained from the Department of Agriculture on that subject, and today received the enclosed, which may be of value to some of your numerous readers, as I have no doubt that hundreds of young cattle are lost annually in this state from this scourge alone.

Very truly Yours, etc., CHAS. C. DUNCAN.

DEPARTMENT OF AGRICULTURE.

WASHINGTON, D. C., Feb. 23, 1873.

HON. H. J. JEWETT, M. C., DEAR SIR:—I am in receipt of your letter of 19th inst., in which you say that, in some parts of the west a disease called black leg, or black-quarter is prevailing among the cattle, and request information as to the character of the disease, the remedies for it, etc.

The reports of this department have from time to time related facts concerning the ravages of a disease similarly called, and, I have no doubt, the same as that to which you refer. However, I think that no special treatise on the subject has been published, and, at the same time, those directly interested in the matter have been indifferent about communicating facts as to treatment, etc.

In view of the importance of the subject, I deem it expedient to be somewhat explicit in replying to your letter.

I find this disease referred to in a report of the Commissioners appointed to enquire into the origin, nature, etc., of Indian Cattle Plagues, published in Calcutta, 1871. Anthrax fever (quarter-ill) is described as a sudden swelling of one hind quarter, which extends over the loins, back and shoulders. When the swelling is pressed it makes a cracking noise like pressing salt.

The animal is very lame on the leg attacked. The respiration becomes very much accelerated, and the animal shows great distress, and is evidently in great pain. The administering of medicines appears now to be of no use; even flogging and cutting of the swelling produces no beneficial effect. When the swelling is cut, the blood is all black and thick.

When this disease breaks out among the stock the cattle are moved from place to place, with a view of giving them exercise and preventing the lameness coming on, and by moving them about they have not time to eat too much.

When they have been driven over ground where the pasturage is scanty there is less chance of the disease continuing amongst them.

This disease does not occur every year, but when the grass is unusually rich and plentiful.

If twenty animals are attacked by this disease (for example) they all die, and treatment is of no avail. The only way (says this authority) of preventing the spread of the disease is to keep the yet healthy animals moving about, giving them limited exercise.

In a "Manual of the More Deadly Forms of Cattle Diseases in India," Calcutta, 1873, the disease, under name of Anthrax fever, is said to be a blood disease, and in India is said to be contagious, though in cold climates it is not believed to be so.

It is generally accompanied with a swelling under some part of the skin, generally on the loins, or hind or fore quarters, or throat and sometimes tongue.

The disease has been found communicable to other animals, and to man in the form of malignant pustule.

CAUSES.

The causes are ascribed as follows: When cattle, which have been kept on very poor, bare or reedy pasture, are put on rich grazing grounds, they become very often affected; the younger cattle are especially liable to become affected, as in them blood is more rapidly formed than in older animals. The blood not only becomes suddenly enriched, but also vitiated, and escapes from its vessels in those soft parts of the body loosely connected. The most thriving animals are the most susceptible, especially those which are rapidly improving after having been in somewhat low condition. Again, at seasons when cattle are not sheltered at night and the days are very hot and the nights cold, they are more liable to be affected.

Again, in this Manual it is said that, in certain badly drained lands in Great Britain, the disease was wont to occur frequently, but, since the lands have been duly drained, the disease is seldom or never met with.

In some parts of the continent of Europe, the disease is always more or less present at certain seasons, on lands where the drainage is defective.

SYMPTOMS.

It is said that the attack is very sudden. An animal seen perfectly well a short time before may be found in an hour or two afterwards to be dull and stiff, and to have a difficulty in moving, and in a few minutes a swelling will be observed under the skin in some part of the body, generally on the loins, hind quarters, fore quarters or throat and tongue; sometimes the disease may be located in the chest or abdomen, or even brain.

If the throat and lungs are principally involved, then the breathing will be distressed; if the brain is affected, there will be stupor, and when the spleen and the other parts of the abdomen become gorged, signs of abdominal pain will be evident.

The respiration becomes very much increased, the animal moans, and the pulse is weak and rapid; the animal's strength soon fails, the external swellings rapidly increase, and death takes place in a few hours.

TREATMENT

Is of no avail when the swellings are large, or when from the distressed breathing it is evident that the lungs are very much gorged with extravasated blood.

PREVENTIVE

Measures may be taken; if an animal is suspected to be attacked, purge well, keep under shelter and give good pure water in which common salt may be mixed.

When one of the herd is attacked, others will probably have a tendency to become affected; it is therefore advisable to give to each animal a laxative drench, and in their feed a small quantity of salt and nitre.

All should be kept on bare pasture, and be made to frequently move about. It is also a good plan to insert a seton in the dewlap of each animal. This has been found a most successful preventive measure, combined with the change to bare pasturage, the new pasturage being of an easily digestible kind.

The prevention of the disease is a most easy matter compared with the treatment of an affected animal; and by carefully preventing stock from becoming exposed to the causes already noted, seldom will the disease be found to make its appearance.

Thus far as to the disease in India where it has much prevailed.

Youatt and Martin, on Cattle, edited by A. Stevens, New York, edition of 1857, treat this disease at some length. They strongly advise bleeding to the utmost limit allowable in connection with purging. But on this head as it relates to bleeding, they do not agree with our Calcutta authority, by whom it is said that the propriety of bleeding is very questionable, and certainly can only be carried out in the very first stage of the disease, as the blood so soon becomes vitiated, turbid, tarry and black in color that it will not run from the opened vein.

Youatt and Martin are of the opinion that the prevention of this malady is the only cure worth notice; and to this end recommend that a piece of short or inferior keep should be reserved as a digesting place, in which the cattle may be occasionally turned to empty and exercise themselves.

Those observed to advance very fast may be bled monthly for several months; but occasional purges of alternative medicines would prevent those diseases which seem to take their rise in over-repletion and accumulation, and are far better than bleeding.

Mr. G. Dawson, an English authority, much approved by Allen in his work on American cattle, says of the methods first to be resorted to, that bleeding is the first and principal remedy, and must be used in proportion to the age and strength of the animal; from three to four quarts will generally be found sufficient. After this the following purgative drink is recommended:

Carbonate of Potash,	2 drachms;
Sulphate of Soda,	6 ounces;
Barbadoes Tar,	3 drachms;
Warm water,	1 pint.

Mix for one dose.

Setons in the dewlap are recommended.

In conclusion, I would cite the language of Mr. John Lawrence (England) in his treatise on cattle medicine, as quoted as follows:

It should be considered that animals living in a state of nature, regulated by the reason and experience of man, would be almost wholly exempt from disease; that their appetites, unlike our own, may be held under a constant control; that their diseases result purely from the negligence or erroneous treatment of their owners. They are either too much exposed to the rigors and changes of the weather, or they are gorged with food, denied a sufficient quantity or supplied with such as is unwholesome. Here we learn the chief causes of their maladies. Learn to prevent them, instead of undertaking the tedious, unsuitable and hopeless task of learning to cure them. Of all things, let the proprietors of cattle renounce forever the insane folly of offering premiums for incurable diseases, and the hope of providing medicines which, by a sort of miraculous operation, will enable men to continue in the habit of exposing their animals to the constant risk of such diseases. I have no recipes to offer; on the contrary, I wish to impress my readers strongly with the idea, that all infallible recipes are infallible nonsense.

I am very respectfully, FRED'K WATTS,
Commissioner of Agriculture.

What Ails the Sheep.

EDITOR FARMER: I have a flock of forty sheep, of what is generally called the common stock; I feed them prairie hay, corn-fodder and corn every day, and in addition to that they have a straw stack to run to at pleasure. They are kept in a pasture of some twenty acres, part timber and rest prairie, with plenty of running water. They all appear to be in good condition. A few morning since, on going out to attend them, I found one of them laying on its side, with its head thrown back as far on its back as it could well be and bleating very hard as if in great pain; acting as though it had a very bad cold in the head; it appeared to be swelled in the abdomen; it lived until the next night and then died. On opening it, the only thing I could see wrong or I supposed was wrong, was some green fat next to the gall, a place probably as big as

one's hand; the gall appeared to be full, and the animal was fat enough for mutton.

Now, if any one of the readers of the FARMER can tell me what ailed the sheep and if there is any cure, I would be glad to know it. This morning I found another one in exactly the same condition as the first. I will add that I never had anything to do with sheep until the past two years, and this is my first case of the disease.

D. C. KNOX.

From Harveyville.

JAMES HURST, RESPECTED FRIEND—I wrote thee two weeks ago and have no word from thee yet. Three of thy cows have died since. I do not know what more to do than I have; I have had several men to see them, they seem to think it is the black leg or something of that nature. They eat well to the last, swell quick when it gets to the body and die, sometimes in less than twelve hours of the time they first show symptoms of an attack—raw ashes seem to prolong their lives; in two instances, we give them raw ashes and sulphur, they are not bound and the manfold is all right. It is an inflammation that commences in the feet and legs, and goes to the body; their noses run water at first, then gets to be a thick matter. The inflamed part after death looks like it had been hammered to a jelly, the blood in the jelly or inflamed parts is very black; they seem to be in great pain and tremble in the affected parts. Tell me what to do if a different treatment is desired. I would not be surprised if thy whole lot of cows would die, but I hope they will not. Come and see them if thou can.

ALBERT A. BAILEY.

Harveyville, Wabunsee Co., 3rd month, 1st 1873.

Will some of our readers give us a name and remedy for the above disease? EDITOR FARMER.

Catching Rats.

A writer in the *Rural New Yorker*, treating of trapping of vermin generally, the following of catching rats in particular:

"Let us now take the case of a house badly infested with rats. How shall we get rid of them? Of course, if they come from some public sewer or other colony, the supply is probably unlimited, and the first thing must be to cut off all outsiders. But if we are troubled by none but natives, it will not require much skill to capture every one of them—old, cunning fellows and all. In the first place, then, we must resolve to take time to it, and capture the whole lot, and to this end no attempt must be made to capture single animals, since this will tend to make them suspicious and will put the old ones on their guard. Then provide a large box or barrel, place in it a quantity of old carpet, brush, etc., and also some food, such as meal, cheese, herring, etc. Bore a two-inch hole in the side of the box, and leave it for some days. The rats will soon find it out and frequent it. First a young one will go in and have a good feed and come out all right; the old ones, seeing that he is not hurt, they, too, will go in, and in a short time every rat about the premises will frequent it. When this occurs see that it is well supplied with food and arrange over the hole a catch having a corresponding aperture cut in it, but having also a series of wires stuck around the hole and pointing inward, just as they are arranged in the common wire traps. Every rat will go in as before and not one can get out. Various methods may be adopted for killing them. If you are a sportsman, you can let them out at a time and shoot them or kill them with terriers. A few slips of sulphured paper thrust through the hole and burned, is, however, a very simple plan and will give them a most effectual quietus. We have known a case in which sixty seven rats were caught at one time in a box arranged as described. In this instance the premises were effectually cleared of the vermin. In this system the great agent is education. Let the animals be taught, during the period of several days, that there is no danger in the boxes, barrels, or traps that we wish them to frequent, and they will rush in pell mell if they expect to procure food by the operation. Who has not seen rats attack corn, potatoes, bread, and other things, when covered up in a box and protected with considerable care? They will not only push covers aside and eat holes through boards, but they will seem entirely to ignore the presence of wires, traps, and the other contrivances of the rat catcher's art. So long as this feeling of security is not disturbed, just so long will the rats rush to the familiar spot, but once let one be caught, and his companions immediately take the alarm and keep at a respectable distance.

A PARAGRAPH appears in the daily papers to the effect that the Eighth Duchess of Geneva is dead. This is the cow sold at New York Mills for \$40,000, to R. Pavin Davies, of England, upon which that gentleman paid a forfeit of \$10,000 when she was resold to Col. L. G. Morris, of Fordham, New York, for \$30,000. The statement is made that she aborted a calf a short time since, and the inference made that she died from its effects. It is also stated that she was at Mr. Campbell's at the time of her death, which occurred February 27. From the date of the service in the sale catalogue, she should have produced a calf about March 8. We scarcely know whether to credit the report or not, since we cannot understand how she should have been at New York Mills; and it may be that the story of her death is on a par with the account of the sale of Dexter, which was telegraphed all over the country in December, to be contradicted in January. If it is true, however, the misfortune of Morris will be severely deplored. He was one of the persons who first encouraged the introduction of high-class cattle into this country; and after abandoning the business for years, and only returning to it last fall, it will be a matter of sincere regret that he should meet with so severe a misfortune upon the very threshold.—*National Live Stock Journal*

THE *Boston Post* says the decline of whaling is due to the abolition of corporeal punishment in our public schools.

ONE who wishes the world to know what he knows about farming, says that the best way to raise strawberries is with a spoon.

A veteran observer remarks that mankind loves mysteries. A hole in the ground excites more inquiry than a star in the heavens.

Cotton Culture.

COTTON PLANTING.

Must of the failures in cotton planting may be ascribed to—1st: Want of knowledge to select the soil adapted for the plant. 2d: Want of proper preparation of the soil. 3d: Want of sufficient manure. 4th: A faulty mode of cultivation. 5th: Too crowded a stand; and 6th: Too little care in selecting seed.

Cotton requires a deep, mellow loam, allowing surplus water to get below the reach of the roots—a soil that is easily penetrated by the heat of the sun. A true, natural, cotton soil is much rarer to the cotton belt of the South than many of our readers may be prepared to affirm. The banks of the Mississippi, Red River, Arkansas river, the Yazoo, the Alabama river, and some minor streams constitute the majority of these lands. Of course, cotton can be, and is planted on different soils, which are not as congenial to its growth. And here it is where most of the failures take place. It is on these soils particularly that we have to exert our knowledge and experience to make it fully adapted to the plant. We can do it by thorough, deep culture, proper drainage and manuring. If, under all circumstances, is necessary to prepare the land well for cotton, it is so much more so on soils with close subsoils, or such soil as is inclined to bake.

PREPARATION OF SOIL.

Where clay, and particularly red clay, constitutes the subsoil, the breaking up of the soil cannot be made too deep. A two-horse plow should precede, and turn a furrow as deep as practicable, from 7 to 9 inches, followed by a bull-tongue, long and narrow; or better, a sub-soil lifter, which should break the subsoil to a depth of, at least, six inches. This operation ought to be performed in January and February. By the time the beds have to be prepared for planting, the soil will have settled sufficiently to work it to advantage. Manuring, with exception of certain cotton soils on the rivers, necessary. Barnyard manure composted with muck, road-scraps, dirt from fence corners, and what ever offal of vegetable matter that may be found on the farm, constitutes the cheapest manure. This ought to be hauled to the field and spread broadcast, as even as possible, and then the beds thrown up.

If artificial manures are to be applied, they either are placed in the planter, constructed for that purpose, or a furrow about seven inches deep is opened on top of the bed with a bull-tongue, incorporating the manure with the soil. These operations to take place immediately ahead of the planting.

It is always safer to mix the manure with the soil than to let it come in direct contact with the seeds. In unfavorable seasons, the manure may destroy the vitality of the seeds.

CULTIVATION.

Many err in their mode of cultivation. It has been sufficiently proved by repeated experiments that from the time the dirt has been thrown back to the plant, no plow should be allowed in cultivation. From that period, the sole object of cultivation should be to keep the weeds down, and merely stir the surface. Many are of the erroneous opinion that, as long as there is no grass, there is no need of cultivation. Here it is where they are sadly mistaken. Even if not a blade of grass is visible, the cultivation should take place every eight or twelve days.

The frequent stirring of the surface is necessary. The consequence of this mistaken idea is—that in waiting for the grass to appear before commencing cultivating, the grass has the advantage; and should, accidentally, a heavy rain appear, and delay the intended cultivation for some days, the farmer will find that he has a field of well-rooted grass to contend with, which will compel him to use a plow, and to cultivate deeper than he may desire, and is of advantage to the plant.—*N. O. Home Journal*.

Entomology.

BY E. A. YOPENOE.

Directions for Sending Insects.

All letters desiring information respecting noxious and other insects, should be accompanied by specimens, the more in number the better. Such specimens should always be packed in a box—either cotton, wool, or some such substance, in a little paste-board box, that is of convenient size, and never enclosed loose in the letter. Botanists like their specimens pressed flat as a paste cake but Entomologists do not. Whenever possible, larvae (i. e. grubs, caterpillars, maggots, etc.) should be packed alive in some tight tin box—the tighter the better, as air holes are not needed—along with a supply of their appropriate food sufficient to last them on their journey; otherwise they generally die on the road and survive up to nothing. Along with the specimens send as full an account as possible of the habits of the insect, respecting which you desire information; for example: what plant or plants it infests; whether it destroys the leaves, the buds, the twigs, or the stem; how long it has been known to you; what amount of damage it has done, etc. Such particulars are often not only of high scientific interest, but of great practical importance. Mounted specimens should always be pinned securely in a cork-lined box, and this packed in a somewhat larger one, with cotton wadding or some other yielding substance in the intervening space, to obviate jarring, and insure safe carriage.

THE APPLE TWIG BORER.

W. M. C. Abilene, Kansas, sends a peach twig containing a female of the apple twig borer (*Bostrychus bicaudatus*, Say).

He says that the beetle is quite numerous in some localities and is doing considerable damage.

This little beetle is the source of a great deal of trouble to the horticulturist by boring lengthwise through the twigs of various trees, the peach, apple, pear and also grape-canes. The male and female beetles are both found in these twigs boring them in the fall, probably for food. They frequently hibernate in these holes and may be found in them during the winter months.

The only practical method of counteracting the injuries of this insect is to prune the infested twigs, when ever found, and burn them.

POTATO BUGS.

A writer in the *American Journal* describing the ravages of the potato bug for two years, says of their sudden disappearance.

About the first of July I was surprised to find the bugs all gone and my vines starting up fresh and vigorous, in which condition they kept till frost killed them and finer potatoes I never raised, especially the peach-blows which did better than the early ones—I can account for it only in one way, that is the skunks burrowed near and upon visiting the den I found it surrounded by wings and other parts of the bugs which they had devoured and discharged with parts easily identified.

Bee Culture.

For the Kansas Farmer.

SPRING MANAGEMENT OF BEES.

It is presumed that the colonies of bees that have been kept housed during the winter, now that the warm bright days of the last of February or the first of March have arrived, can, after the sun has warmed the ground, set the hives where they are to remain through the season; raising the back end of the hive about an inch higher than the front, making the top level the other way and fixing the whole solid and firm. It is best not to have the bottom board more than five inches above the ground, and level off and clear away all grass and rubbish for the space of a couple of feet in front, that the bees on returning to the hive may be able easily to find their way inside.

The next warm day, open and examine the combs, to see if they have any brood; to clean out the accumulations left on them or the bottom, and to arrange the frames at their proper distances—one and one-half inches from center to center. If they have honey sealed wax in sufficient quantities to last a month or two, give them no further care except on every warm still day, until flowers come.

FEED RYE FLOUR.

unbolted, placing it in boxes not less than fifty feet away from the nearest hive.

They can easily be induced to work out this flour by the aid of a very little honey in the comb, or by saturating a corn cob with a syrup made of melted sugar, (not molasses), and carrying half a dozen bees after they begin to feed, from the mouth of the hive to the meal and carefully placing them in a box.

In the course of an hour or two, you will see hundreds of bees busily at work gathering the flour into little pellets on their thighs and carrying it to their hives. Bees use this flour to feed to the larvae, and it will be carried in every warm day until flowers yield natural pollen in quantities sufficient for their wants.

This feeding of flour forward the raising of young bees usually about a month and ought not to be neglected.

If your bees do not have sufficient honey to last until flowers come, it is best to feed at once. If you have but one stand and there are no other bees in a mile or more, feed from outside, otherwise great care must be taken to insure success and guard against robbers. Honey is not the best article to use, strange as it may seem, for it is scented by outsiders, and every effort made to gain access to the coveted treasure.

The best feed is made from A coffee sugar—making a syrup which is sweet to the taste and still thin enough to run like water. It wants to be boiled a moment to skim off impurities. Just before dark if a warm day open your hive, take out as many frames of empty comb as are not covered with bees, and pour into the cells (first laying the frame down flat) as much of this syrup as the cells on one side will hold, then raise the frame to its natural vertical position, and let the surplus run off, then replace in the hive. As soon as all are filled close the hive, and after dark close the fly-holes so that no bee can get in or out, with wire cloth and leave the hive in that condition all the next day until about sunset, when the syrup will all be carried where it is wanted and the danger from robbers is passed. In all feeding of bees the greatest care must be taken not to leave nor expose any honey or syrup anywhere about your hives, as it is sure to attract other bees and lead to robbing.

A good colony of bees will use in breeding about half a pint of this syrup every day, consequently by measuring the syrup you feed to a hive you can tell when to feed the next time.

It is necessary the supply be not allowed to run out or the good effects are lost, for a short allowance of feed stops the laying of the queen and sometimes the death of thousands of the larvae, which have to be taken out of the cells by the bees and carried outside.

The fundamental idea is, to so feed that a good supply may be within their reach at all times, so that breeding may go on uninterrupted in the hive. If properly managed the colony increases in number very fast, and by the time white clover is in bloom they are prepared and willing to send out an army of workers to bring in the best honey not only for their own use but for that of their owner.

Owing to the high winds and variable weather in this state during the month of March, bees will be better and be stronger in the end, if after feeding flour and honey, the first warm days of spring, they be replaced in their winter quarters and kept there until flowers come.

My experience is that more bees are lost in early spring in our hard winds and sudden changes, than can be replaced by breeding, consequently I do not hesitate to recommend absolute rest in winter quarters in preference to allowing them to remain out doors. The few days they were out to fly and feed will start the queen laying and it will be kept up, so that all the increase by the hatching of the brood is so much clear gain.

E. GALLUP, Orchard, Iowa, writes:—"Bees are wintering finely thus far. My bees are on their summer stands. They had a splendid flight yesterday. Those in the cellar are in excellent condition. No danger of bee disease in a mild winter, unless they have very bad management."—*Bee Journal*.

Patrons of Husbandry.

To Deputies.

The various Deputies will greatly oblige us by sending lists of Granges, when organized, for publication in this column.

It is requested that all Granges within the State report the names and postoffice address of their Masters and Secretaries, elected for the ensuing year, to the Secretary of the State Grange, G. W. SPRUNSON, of Jacksonville, Neosho county, Kansas.

It is also requested that each delegation from every county report the names and postoffice address of the Masters and Secretaries of the Subordinate Granges of their respective counties at the coming meeting of the State Grange, on the third Wednesday of February next.

Topeka, Jan. 14, 1874.

G. W. SPRUNSON, Sec. State Grange.

Organizing Granges.

Those parties wishing instruction in the work of the Order, or information concerning the organization of Subordinate Granges, will hereafter address me (enclosing stamp) as follows:

W. S. HANNA,

Chaplain, State Grange, Junction City, Kan.

New Granges.

W. S. Hanna, Chaplain of State Grange, organized the following Granges:

County Line Grange, D. W. Stouder, Master, Madison, Kansas; Shell Rock Grange, R. E. Wolcott, Master; J. D. Shaw, Secretary; Shell Rock, Greenwood Co., Kansas. Both Granges full.

EDITOR FARMER: Noble Grange, No. 809, was organized January 20th, with twenty-six charter members. We have admitted five, and have a live working Grange. The officers are as follows:

Master, J. L. Noble; Overseer, Geo. Chase; Lecturer, W. Musgrave; Steward, W. Wallinley; Assistant Steward, J. F. Day; Chaplain, J. F. Ross; Treasurer, Henry Mitchell; Secretary, Jas. F. Ayars; Ceres, Mrs. Sarah Manfart; Flora, Lillies Cameron; Pomona, Mrs. G. N. Church; Lady Assistant Steward, Miss Jennie Walbridge; Gate Keeper, Daniel McArthur.

Several of our members take the FARMER, and think in its new dress, it has no equal in the west. Stock looks well. Farmers are making preparations for spring work.

JAS. F. AYARS, Sec'y.

From Sedgwick County.

EDITOR FARMER: Less than one year ago, there was not a single Grange in this county, and very little was known of the Order of Patrons of Husbandry, but the people were ripe for organization. Its noble objects and principles were such as to commend it to every thinking tiller of the soil. No argument was needed to convince them that they ought to join its ranks.

At this time we have twenty-nine Granges, and ere you receive this, we will have thirty-one.

Since Dec. 15th, I have organized fourteen Granges, ten in this county, two in Harvey county, one in Sumner county and one in Reno county.

Recently I have organized Seltzer Springs Grange, Minnehaha township, Cyrus Webb, Master, and J. D. Fox, Secretary, Wichita. This Grange would have been much stronger, but the people did not have sufficient warning that I was to be with them. Many were prevented from joining on account of not being prepared financially.

Last week I organized Payne Grange, Payne township, Joseph Corwan, Master, and James Wilson, Secretary, Wichita.

This Grange was organized with thirty members, and a good many more would have been glad to become charter members, if it had been possible. Instead of the interest in our Order dying out it is becoming greater from day to day.

A friend living in Illinois, who is not a member of the Order, wrote me a few days ago, that if we Patrons wish to reap any benefit from the Order we must do so soon, for it is not destined to live long.

Can we ever fully accomplish its objects? Honesty inculcated, education nourished, charity a prominent characteristic, brotherly love cultivated.

Should our Order live hundreds of years it will still find a wide field of usefulness. May the FARMER be ever as now the fearless champion of our Order, and may it prosper according to its merits in my wish.

J. L. ZIMMERMAN, Dep.

From Dickinson County.

On Thursday, 12th inst., Industry Grange, was organized at Fairview school house with seventeen male and ten female members. H. S. Bigelow, was elected Master, and D. Huggins Secretary.

After we had assembled, we found the room we expected to occupy entirely too small we therefore adjourned to meet in Independence school house a few miles north. Now a question or two.

Where can Cushing's Manual be obtained, and what will it cost? Where can black locust seed be obtained? Has alfalfa clover been tried in Kansas, and with what success; where can seed be obtained and at what cost; when is the proper time to sow, and how?

I am pleased with the FARMER in its new dress, and recommend it at every opportunity.

Wheat and rye look well in this vicinity. There are six Granges in this county, and prospect for as many more soon. Please send me illustrated poster, and oblige

A GRANGER.

PLEASANT HILL, KAN. MARCH 9th 1874.

Highatha Grange was organized here the 6th inst. by A. F. Case of Salina, consisting 20 males and 10 females, as charter members. As no more than the above number could be received as charter members, quite a number had to defer becoming grangers until after the organization. Officers elected are as follows: Master, J. S. Hollinger; Secretary, R. Chambers; Steward, J. Brackney; Assistant Steward, W. Smith; Lecturer, Ralph Sherer; Overseer, G. R. Sherer; Treasurer, J. Buherer; Chaplain, Copeland; Gate Keeper, J. Kullum; Lady Assistant Steward, Mrs. R. Chambers; Ceres, Mrs. G. R. Sherer; Flora, Mrs. Charles Sherer; Pomona, Miss L. J. Hollinger.

The above members are all active and energetic, and alive to their duty and interest, and a happy and prosperous time is anticipated.

R. CHAMBERS, Secretary.

EDITOR FARMER: A description of this county at this time is out of place; I will only say, that I have been here three years, and as far as crops are concerned, and as far as making a living by farming is concerned, it seems to me, man could not ask for a better place. The farmers of this place and for seventy-five or a hundred miles west of here, are organizing Granges at a very rapid rate, and seem to be looking forward "that the good time coming" is a surety, and are studying to try and take the place in the community that rightfully belongs to them. There was a Grange organized in this township Feb. 9th, and now has thirty-five members, Charles Brown, Master; Fale Elliot, Secretary and E. Devitt, Treasurer.

Deloit, Kansas, March 2, 1874.....

For the Kansas Farmer.]

RETRENCHMENT.

All civil authority of inalienable natural right belongs to the people, and whoever exercises the same in any manner justly, must derive his power to do so from their appointment. Representative government is supposed to represent the will of the people of the same and carry out their wishes. So representative governments show the purposes of the people only in a secondary manner, and to that extent in which the views and actions of the representatives are in agreement with such purposes. So such governments may but slightly carry out and sometimes even may contravene the wishes of the people and become to them an injury. For these reasons governments should be kept as nearly democratic.

In the arrangement of our political matters as it seems to me, we as a state have forgotten or overlooked this truth. We delegate too much authority, and reserve too little for ourselves. We have too many officers to be salaried and too many offices to be filled. We choose officers and impose on them duties, then forgetting that they are our servants, we fail to take notice of their action as we ought.

One principle in government I hold to be self evident, viz: that whatever authority can be more wisely and prudently exercised by the ballots of the people than in any other way, should never be delegated to any officer or conferred on any council or board.

We have in every county a deliberative body, a little sort of sub legislature called a county board. Its duties are multifarious, its privileges many, and its powers in some respects are almost unlimited. Especially in financial matters is this so. It cares for, controls and disposes of county property; it makes, repairs, and sells county buildings; it locates, opens, widens and repairs roads, culverts, viaducts and bridges, and levies taxes at pleasure for the accomplishment of these and a multitude of other things. Conferring such powers on any county board is a political mistake. When property holders are to be taxed, it is their right before hand to know for what they are to be taxed, and to declare by their ballot or otherwise whether such tax shall be levied. Building court houses and jails &c., spanning large streams with costly bridges, and all other expensive public improvements should never be undertaken except as the will of the people directly expressed thereon shall order the same. As it now is our county boards pile tax on tax till we stagger under the burden. They also dispose of county property, sometimes in such a manner that thousands of dollars are lost, or become dead stock, worthless to all intents and purpose for the people. So extensive is their power that oftentimes their meetings are regarded with apprehension, and are lobbied almost like the sittings of a legislature.

Whether any mischievous political arts, favoritism, or money, ever influence their actions, I do not say, but leave others to tell, who like me have not failed to observe what was too evident to be misunderstood. In the matter of roads, the township treasurer and clerk, with the overseer of the district in which the road is, could constitute a committee for a majority of cases that come before the county board to decide in respect to their merits, more satisfactorily than it is now done, at one tenth of the expense. All the financial privileges of the county board should be restored to the people. Their other duties could be divided among other county and township officers. It would be a great saving of expense and at times a wonderful relief, if this little county sub-legislature was "wiped out."

L. A. S.

For the Kansas Farmer.

WHERE IS THE "FIP" TO COME FROM.

I remember hearing the "old folks" tell of a neighbor of theirs in Ohio who emigrated to Illinois in an early day, but soon became dissatisfied and returned. He declared a man could not live in Illinois. When asked the prices of various articles, (amongst other things) that potatoes were worth ten cents, and corn a "fip," per bushel. "Well," insisted his interrogator "a man ought to live where he can buy potatoes for ten cents, and corn for 'fip,' per bushel." "Yes," he responded, "but where in the de—l is the 'fip' to come from?"

Now friend Popenoe's explanation of "where the money goes," is satisfactory; yet, I am not convinced that the initiation fee is not too much. In one respect it is not.

Every enterprise from a church to a gambling house must stand upon a financial basis. Hence the more money the better the foundation. But the question is can a farmer see "where the 'fip' is to come from." By the way, would it not be more in harmony with the spirit of our institutions for each Grange to regulate that matter to suit themselves. Nor do I consider friend Popenoe's reference to the professional man at all pertinent. He makes \$5, \$10, \$15; or perhaps \$50 or more per day, and as it comes easy he takes no heed of its departure.

But with the farmer, whose incessant toil through the producing season is rewarded with a scanty profit if not indeed a loss, and who must stand exposed to the severity of the winter, with cudgel in hand, as it were, to bang away the "wolf from the door;" it becomes a matter of serious concern "where the 'fip' is to come from.

Is it not the case that many who enter the Grange are obliged to practice severe economy in order to raise the admission fee; and is it not the case that hundreds of poor but honest and respectable farmers who would make worthy members are excluded from the Grange, because unable to pay the entrance fee. Whence the wall that comes up from the south praying the National Grange to reduce the cost of initiation. What think you friend Hudson, and you friend Popenoe. I purpose becoming by relation what I am by occupation—a Patron of Husbandry—as soon as I can spare a V without depriving my family of the necessities (not comforts) of life. But I shall have to heed the advice of Longfellow, "Learn to labor and to wait"—until I can get the "fip."

WILLIAMSON.

Grandview, Wyandotte, Feb. 1874.

Notes and Queries

WHAT IS THE MATTER.

The department report for January is before me, containing a table showing the average yield per acre of the different crops of the several states. I wish to make an extract from that report, comparing Kansas, the state of my adoption, with that "little insignificant state" of my birth, Connecticut.

We have proclaimed to all the world that Kansas is ahead in soil and climate; are we entitled to that preeminence.

The following is the extract:

		Kan.	Conn.
Wheat,	average per acre,	15 bu 18 bu.	
Corn,	" "	23 " 30 "	
Buckwheat,	" "	9 " 18 "	
Potatoes,	" "	30 " 97 "	

There is a screw loose somewhere, and I wish some of our practical farmers would tell why we fall so far behind.

It is true we had an uncommonly dry season, which may account for the short crop of corn and potatoes, but we must remember that our wheat crop was made before the drouth set in.

I think these are the ingredients that those yankees use to a greater extent than we do—brains and manure.

KAW HILLS.

EDITOR FARMER: "T. M. C." writes to know in the last number of the FARMER, what varieties of trees to plant in his orchard. I will give the following as my experience and observations:

Summer—Red Astrichau, American, Summer Pearmain, Red June, Sweet June.

Autumn—Rambo, Maiden Blush and Tallman Sweet.

Winter—Janet, Winesap, Ben Davis, Jonathan, White Winter Pearmain, Ortley and Roxbury Russet.

"T. M. C." can make no better selection than the above if he is planting for profit.

The winter sorts are all strong growers (excepting the Jonathan), early and prolific in bearing, perfectly hardy and the best of keepers.

There are other kinds, superior in flavor to any of the above mentioned, but not so reliable for bearing. For bearing and profit, I think no orchardist in the state will vary much from the above list.

W. H. MEADE.

Topeka, March 7th, 1874.

THE SUNFLOWER.

I notice a letter of inquiry by L. G. Read of this county, in regard to the cultivation of the Sunflower, and a request by the Editor of the FARMER that the desired information be given through your columns. The annual sunflower is a native of South America, but is found indigenous to nearly all parts of the world, and has been long known to cultivation; but cannot be recommended as a field crop,

owing to its peculiar exhaustive nature; an analyses of its stems and leaves, shows that potash largely predominates. The seed of the sunflower (*achens*) contains large quantities of oil, which is used for the table, and is said to be as good as olive oil; for the manufacturing of soaps, for burning in lamps, and are when roasted, used by many as a substitute for coffee. Meal, and bread are said to be made of them by the Portuguese's, they are also highly recommended as being an excellent food for poultry, many species of birds being especially fond of them. The soil best adapted to their growth is a light friable soil, abundant in alkali, the plant not being liable to suffer from protracted drouths. Plant and cultivate same as corn, yield from 80 to 100 bushels per acre; is easily threshed by machine, tread out by oxen or horses. The seed can be procured through James Vick, Rochester, N. Y. The only market at present, where sales of any large quantity could be affected is N. Y. and the price varies from \$2.00 to \$3.00. per bushel, being regulated by supply and demand. I have thus answered your correspondent's inquiries, and if agreeable you may hear from me again. Yours Respectfully,

J. L. HOLLINGER.

ITEMS.

CURE FOR GARGET—Tincture arnica 1 teaspoonful, three times a day in bran or shorts. Bathe the bage as often with the tincture reduced one-half with warm water.

M. L. REDDING.

A NEIGHBOR from Wyandotte county reports Tappahannock, Egyptian, Carpenter's Lancaster, Red June and Brittain wheat as looking finely in his neighborhood. That put in the smoothest looks best.

How can I make a hot bed for raising Sweet Potatoes, also the best mode of keeping them after maturity.

E. D. MILES.

A SUBSCRIBER wishes to know where Downing's Ever Bearing Mulberry can be procured.

My horse has a disposition to urinate freely every hour—has been so all winter and is running down rapidly. What is the difficulty, and the remedy?

Where can the "Buckeye" potato be procured, for seed?

THAT CORN DRILL—Tell Mr. H. Warner of Cherokee, to write to Long, Black & Allstater, at Hamilton, Ohio, Manufacturer of Reamey's patent corn drill and fertilizer and he will get all the information about the cost. I have used one of them two years and am well pleased with it.

J. F. WELLINGTON.

WILL you have the kindness to inform me through the FARMER what kind of cotton seed is the best, and where a gin to take out the seed, or the information how to construct one and cost thereof. I have grown cotton for the last two years, on a small scale. I have early Tennessee and Sea Island, the latter did not come to maturity, but the Tennessee did; I have fifty pounds of this. I am confident that it will mature here.

I want to get some hemp seed too. I have tried flax, it answers well here, but rather short in the straw.

We must have a diversity in products if we intend to succeed in farming in this land locked State. We must pay attention to beet culture for stock; as turnips can not be depended on.

JOHN GOODWIN.

I AM thinking of putting in about five acres of onions, have sandy loam, tolerably clean valley land, what kind do you recommend? What is the best method of putting them in? If by drill, where could one be procured and about what cost would it be, and when ought they to be sowed? An answer will oblige.

THOMAS MOSS.

EDITOR FARMER: I write for information in regard to sowing wheat, oats and barley. What I wish to know, is how much spring wheat you would sow to the acre, providing the berry be large or small; and how many bushels of oats to the acre, also, how much barley to the acre.

I am having an argument on this subject, and being in Kansas but a short time, I would like to be instructed in Kansas Farming.

Please answer these few questions in your next issue.

A SUBSCRIBER.

EDITOR FARMER: I have just had the pleasure of subscribing for the FARMER a paper I regard as one of most valuable to the farmer, and many valuable family lessons can be learned from every column and, home truths can be had at every fireside. I wish you and the FARMER great success.

I am one of those on the great Arkansas valley, six miles from Fort Dodge; hope to raise a big crop this season; am now ploughing my ground deep, and hope you success.

ISAAC YOUNG.

EDITOR FARMER: Some time ago I was reading in a newspaper published in Minnesota, of a very valuable but simple method for preserving pine posts and to keep them from rotting in the ground; after the post had been several years in the ground they were just as good as when first put in. If you have any knowledge of this method, please answer this through the FARMER.

F. C. Z.

Scientific Miscellany.

INSANITY RARE AMONG SAVAGES.

"If we may rely on the observations of travelers," says the "Journal of Mental Science," "there has always been comparatively little insanity among savages." Admitting this to be the case, it is not difficult to guess at the reasons of their comparative immunity. In civilized society there are three principal causes to which we may trace nearly every mental disorder, viz., hereditary predisposition, intemperance, and mental anxieties. Now, savages are almost exempt from the operation of these three causes. They do not poison their brain with alcohol until the white man introduces it to them. The weak in mind and body are not carefully attended to and kept alive as among civilized people; if they are not actually destroyed, by natural or artificial means they are got rid of, so they do not themselves swell the number of insane in their own generation, nor increase them in the next generation by propagating their kind. Again, savages do not intermarry in the same family; among them the prohibition of marriage extends often to distant relatives, persons having the most distant blood affinity being forbidden to marry. It can scarcely be doubted that the reason of such prohibition was their experience of the evils resulting from the intermarriage of relatives—an experience which, distinct as is the lesson which it teaches, has not yet availed to check the intermarriages of first cousins among civilized people.

MR. BAIN is in favor of substituting electrical shocks in place of the common punishments employed in prison discipline. By such shocks and currents, says he, any amount of torture might be inflicted; and the gradation might be made with scientific precision. The punishment would be less revolting to the spectator and the general public than floggings, while it would not be less awful to the criminal himself; the mystery of it would haunt the imagination, and there would be no conceivable attitude of alleviating endurance. The terrific power exercised by an operator, through the lightest finger touch, would make more deeply felt the humiliating prostration of the victim. If capital punishments are to be permanently maintained, much could be said for discarding strangulation and substituting electric shock.

Improved Engraving Process.

Some novel and interesting facts, observed by M. Gourdon, in the action of acids upon zinc covered with certain metals, have been communicated by him to the French Academy of Sciences. Zinc plunged into dilute solutions of sulphuric, hydrochloric and acetic acids, is attacked only at the points where other metals are present, the metals which produce this phenomenon with most intensity being cobalt, platinum, nickel and iron. Now, ammoniacal chloride of cobalt renders it possible to perforate zinc with water containing only one ten-thousandth part of sulphuric acid; and M. Gourdon applies these results, in a very ingenious manner, to various procedures for engraving.

He states that, by writing upon zinc with different metallic inks, making use of the most active, containing salts of cobalt, for the blackest parts, and passing it then into acidulated water, an engraved plate is obtained. To reproduce leaves or plants, they are soaked in solutions of metallic salts, and applied to the zinc, which is then treated with weak acid. M. Gourdon has also discovered a new kind of heliographic engraving by transferring the silver from an ordinary photographic proof upon the zinc, which can be attacked by the acids in the parts where the silver has been deposited—a discovery evidently susceptible, when fully developed, of interesting results.

FREEZING TREE SEEDS.

The erroneous impression seems to prevail with many persons that tree seeds, in order to germinate, must first be frozen. The peach and other fruits are raised in countries where the ground never freezes. The fact is that many seeds have such hard coats, that if sown in ordinary soil they will not sprout in time to grow the first season. This difficulty may be overcome in spring by soaking them a few days or until the germ just begins to swell, when they may be mixed with plaster of other substance to dry them, and sowing immediately. The seeds of honey locust and osage orange have such hard coverings that the water should be made very warm. A good way is to place seeds in a leaky cask and pour the warm water through them. This gives them a change of water, which prevents their souring.—Nursery Exchange.

The Metric System of Measures.—At the Coast Survey Office there have just been finished a number of sets of the standard weights and measures of the metric system, which are to be supplied to each State through its Governor, under a joint resolution passed in 1866 for the purpose of providing a means for the gradual introduction of the metric system into this country. The measures and weights are beautiful specimens of workmanship, and will be soon distributed. A movement has been made under the auspices of President Barnard, of Columbia College, to organize a national society of metrology, which will have for its object the establishment of a unitary system of values, weights and measures.

At the recent meeting of the Italian Scientific Congress, held in Rome, two Neapolitan physicians submitted for examination a liquid preparation designed for stopping instantaneously the flow of blood from wounds of every description. A commission of physicians, according to the Roman "Fanfulla," have been experimenting with it in the anatomical theatre of the Santo Spirito, and have reported on it as one of the happiest of recent discoveries, and as particularly serviceable on the field of battle.

IMPROVED MUCILAGE.—Ordinary mucilage, made from gum Arabic, does not fix paper to wood or pasteboard, or to metallic surfaces. These disadvantages are overcome by adding a solution of sulphate of aluminum, made up in ten times its quantity of water. Ten grains of aluminum sulphate are sufficient for 250 grains of mucilage. Prepared in this way it will not become mouldy. Again, according to Hirschberg, a few drops of strong sulphuric acid are added to the gum solution, and the precipitated sulphate of lime allowed to settle. Solutions prepared in this way a year and a half ago have neither become mouldy nor lost their adhesive power.—Boston Journal of Chemistry.

Market Review.

OFFICE OF THE KANSAS FARMER,
TOPEKA, KAN. Mar. 18 1873.

Kansas Pacific Gold Sevens, May and Nov.	55	
Kansas Pacific Gold 5's, L'd G' Jan'y, June	60	\$0
Kansas Pacific Gold Sixes, June and Dec.	58	
Kansas Pacific Gold Sixes, Feb. and August	61	
Kansas Pacific Income Sevens, No. 11,		
Kansas Pacific Income Sevens, No. 16,		
Atchison, Topeka & Santa Fe First Mortg'e	75	
Atchison, Topeka & Santa Fe L'd G't Bonds	80 1/2	\$5

LOCAL SECURITIES.			
Kansas 7 per cent Bonds	98	City Script	85
Kansas 6 per cent Bonds	90	Dist. School Bonds	80@85
State Warrants,	per	Money on ap'd sec.	
County Warrants	per	per month	1
County 7 per cent rail- road Bonds	50	County 10 per cent Improv'm't B'ds,	92

GRAIN MARKET.
WHEAT—Fall No. 2, \$1 75; No. 3, \$1 15@1 20 No. 4, \$1 00
@ \$1 00. Spring, Red, No. 2, 90c.
CORN—White, No. 1, 50c in bulk; Yellow and Mixed, 45c
OATS—No. 1, 32c in bulk.
RYE—50c.
BARLEY—50c@ \$1 00.
FLOUR—Wholesale Millers' rates—No. 1 Fall, \$3 25; No
2, \$3 35; No. 3, \$3 60; Low Grades, \$2 75

APPLES—Green Michigan, per barrel, \$6 50; Native, per bushel, \$2 00 to 2 50.

BEANS—White Navy, hand picked, extra choice, \$3 25;
Medium, \$3 00; Common, \$2 00; Castor, \$1 40@1 50.
BEESWAX—Nominal at 25c.
BUTTER—Choice 30c; Common Table, 22c; Medium
18@20c; Common, 8@10c.
EGGS—Fresh, 10@12c.
GAME—Prairie Chickens, der doz, 40@75c; Quails, per
doz., 50@75c; Rabbits, per doz., 50@75c; Squirrels, per
doz., 50@60c; Buffalo, per pound, 3@5c; Antelope, per
pound, 4@5c.

HONEY, 3c; Wilson Sandle, per pound, 10c—Carcass, 5c to 7c;
 HONEY, 1c; 15c 5 25 per barrel—200 pounds net.
 LARD—Kett rendered, there, 9 1/2c; tin cases, 9 1/2c to 10 1/2c;
 tin pails, 10c Country, 8c 1/2c.
 OXIONS—2c 50c 3 00 per bushel.
 POTATOES—Early Rose, 1 30c 1 75 per bushel; Peach
 blows 1 50c 1 75
 POULTRY—Chickens, 1 50 per doz.—Dressed 6 7c per
 pound; Turkeys, 5 00 7 00 per doz.—Dressed, 6 8c per
 pound; Geese, 1 00 2 25 per doz.—Dressed, 5 6c per lb.
 PROVISIONS—Bacon, Cleop Sides

Hams, sugar-cured, plain, 12c; Pork, Clear, \$17 00; Mess
 \$16 00; Bacon, sugar-cured breakfast, 11c.
 SEEDS—Henip, \$1 00; Blue Grass, \$1 00; Timothy, prime
 \$3 50; common, \$3 00; Clover, \$4 00 to 7 00.
 TALLOW—5c to 5 1/2 c.
 VINEGAR—18 to 25c per gallon.

Leavenworth Market.
LEAVENWORTH, March 18
FLOUR AND GRAIN.
BARLEY—No. 1, \$1 00; No. 2, 90c; No. 3, 85c.
CORN—Shelled, 54c; Yellow, 55c; Ear, 55c.

RYE—No. 1, 60c; No. 2, 55c.
 WHEAT—No. 2 Fall, \$1 35; No. 3, \$1 20; No. 4, \$1 15.
 Rejected, \$1 00; Spring, 70c to 80c.
 FLOUR—Choice Family, per sack, \$3 75; XXXX, \$3 50;
 XXX, \$3 25; XX, \$2 90; X, \$1 70. Rye, \$2 25 per cwt.
 Buckwheat, \$5 25 to 5 50 per cwt.
 CORN MEAL—\$1 20 per cwt.
 BRAN—100c.

LIVE STOCK MARKET.
CATTLE—Supply limited and demand good for fat cattle. Native Steers, 3½¢@4¢; Cows, 3¢; Texas Steers, 3¢@3½¢.
HOGS—Receipts light and demand good at extreme range. Live Hogs, 4½¢@4 75. Dressed—Good to Geolce, 5¢5½¢; Light, 4½¢@4 75.
PRODUCE.

BUTTER—Choice, 20c; Firkin, 30c; Cooking, 14c.
EGGS—22c.
BEANS—White Navy, \$2 50.
POTATOES—Early Rose, \$1 40; Peachblows, \$1 50.

KANSAS CITY, March 18.
PRODUCE AND PROVISIONS.
FLOUR—XXXX, per sack, \$1 00 @ 1 25; XXX, \$3 25 @ 3
XX, \$2 50, Rye, per cwt, \$2 25 @ 3 00.
APPLES—Mixed, per barrel, \$4 00 @ 4 50; Choice, \$5 @ 7

BUTTER—Choice, 30c; Good, 20c; Common, 15c@18c.
BEANS—Choice Navy, \$2.50; 30c; Medium, \$1.50@2.50.
Common, \$1.50. Castor, \$1.50@1.60.
BROOM CORN—\$4.00@100 per ton.
CORN MEAL—Bolted, in sacks, \$1.50 per cwt; Kiln dried
per barrel, \$3.30@1.00.
EGGS—11c@12c.
WHEAT—Fall, No. 2, \$1.40@1.42; No. 3, \$1.25@1.28; No. 1,
\$1.12. Spring, No. 1 white, \$1.25; No. 2 red, \$1.12.

CORNS—Yellow and Mixed, 57c; White, 57c.
OATS—Mixed, No. 2, 42c; Rejected, 33c.
RYE—No. 2, 65c.
HAY—Baled, \$7 50 per ton.
PROVISIONS—Hams, canvassed, 12c; uncanvassed, 10c.
Breakfast Bacon, 11c; Clear Rib, 8c; Clear Sides, 8½c.
Country Sides, 7c; City Shoulders, 6c; 6¼c; Country
Shoulders, 5c.

FLAXSEED—\$1 40@1 45.

CATTLE AND HOGS.

CATTLE—Native Steers, \$5@5 95. Fat Oxen \$5 00@5 50.
TEXAS Steers and Cows mixed, \$3 45.
Hogs—\$1 80@5 00.

St. Louis Market.

CORN—No. 2 mixed, 62½c.
 OATS—No. 2 mixed, 47½c.
 BARLEY—Kansas, \$ 95.
 RYE—No. 2, 90½c.
 PORK—\$11 75c. 15 10.
 HOGS—\$1 50c. 10; Light Shipping, \$5 40c. 50.
 CATTLE—Good to Choice Native, \$1 50c. 50 Good to
 Prime Texas and Indian, \$150c. 50.

Chicago Market.

CHICAGO, March 13.

LAND WARRANTS.

Land Warrants 100 acres - - - - - \$160. Selling at

Land Warrants, 120 acres, - - -	Buying	\$100	Selling	\$18
Land Warrants, 120 acres, - - -	Buying	125	Selling	14
Land Warrants, 80 acres, - - -	Buying	90	Selling	9
Land Warrants, 40 acres, - - -	Buying	40	Selling	4
Agricultural College Script - - -	Buying		Selling	17

PRODUCE AND PROVISIONS.

WHEAT—No. 1 Spring, \$1 20; No. 2, \$1 17@1 25 No. 4
\$1 15.

COEN—No. 2, mixed, 58@59c
OATS—No. 2, 43c
RYE—No. 2, 80@81c
BARLEY—No. 2, \$1 68@1 00· No. 3, \$1 52@1 70.
WHISKY—93½@97c.
PORK—\$14 25@14 50;
BULK MEATS—Shoulders, 5¼@6; Short Rib, 7¼c; loaves

GREEN MEATS—Shoulders, 7½¢; Short Rib, 7¢.
HAMS—8¼¢@9¼¢.

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New York Market.

NEW YORK, March 18.

FLOUR—Superfine, \$5 70@6 20; Common to Good, \$5 30@6 00.

WHEAT—No. 2 Chicago Spring, \$1 49@1 52; Iowa Spring, \$1 51@1 57; Northwest Spring, \$1 68, BARLEY—Western, \$1 45.
 CORN—Western mixed, 85c; New mixed, 88@89c.
 OATS—Western mixed, 63@64c.
 PORK—New Mess., \$15 25@15 67; Prime Mess., \$15 00@15 25.

CENTAUR LINIMENT.

THE Great Discovery of the Age. There is no pain which the Centaur Liniment will not relieve, no swelling which it will not subdue, and no lameness which it will not cure. This is strong language, but it is

is true. It is no humbug; the recipe is printed around each bottle. A circular containing certificates of wonderful cures of rheumatism, neuralgia, lockjaw, sprains, swellings, burns, scalds, caked breasts, poisonous bites, frozen feet, gout, salt rheum, ear-ache, &c., and the recipe of the Liniment will be sent gratis to any one. It is the most wonderful remedy.

wonderful healing and pain-relieving agent the world has ever produced. It sells as no article ever before did sell, and it sells because it does just what it pretends to do. One bottle of the Centaur Liniment for animals (yellow wrapper) is worth a hundred dollars for spavined, strained or galled horses and mules and for scrow, worm in sheep. No families stock this

CASTORIA is more than a substitute for Castor

C Oil. It is the only *safe* article in existence which is sure to regulate the bowels, cure wind colic and produce natural sleep. It is pleasant to take. Children need not cry and mothers may sleep. 10-19-1y



Literary and Domestic.

EDITED BY MRS. M. W. HUDSON.

"KEEP A STIFF UPPER LIP."

There has something gone wrong
My brave boy, it appears.
For I see your proud struggle
To keep back the tears.
That is right. When you cannot
Give trouble the slip,
Then bear it, still keeping
"A stiff upper lip!"

Though you cannot escape
Disappointment and care,
The next best thing to do
Is to learn how to bear.
If when for life's prizes
You're running, your trip,
Get up—start again,
"Keep a stiff upper lip!"

Let your hands and your conscience
Be honest and clean;
Scorn to touch or to think of
The thing that is mean.
But hold on to the pure
And the right with firm grip,
And though hard be the task,
"Keep a stiff upper lip!"

Through childhood, through manhood,
Through life to the end,
Struggle bravely and band
By your colors, my friend.
Only yield when you must,
Never "give up the ship."
But fight on to the last
With "a stiff upper lip!"

CHROMO PICTURES.

We have been asked by some young readers of the FARMER to tell them something about Chromos; probably not because we know so much, but because we have a weakness for pictures of all kinds and they think we ought to know something of the Chromo's now so popular.

There are few homes now days where religious, literary, or agricultural periodicals are read, that is not also supplied with more or less chromos, some good, some indifferent, and many very bad.

Of these latter it is said that they do good, that they are better than no pictures etc., all of which is true we believe, for a bright spot is prettier than many bare walls and even a poor picture serves as a window of escape for the mind; they perhaps inspire us to decorate our homes in other ways and to arrange in a more tasteful manner all our surroundings, but that they teach an appreciation of good works of art, in any degree, is questionable.

We frequently see cheap pictures, mere rough wood cuts, which embody an idea and are really artistic, as are many of Nast's ludicrous caricatures, and copies of some of Hunt's sentimental pieces.

But this can seldom be said of cheap chromos, they depend upon their colors alone in almost all cases, many of the most popular and widely disseminated being merely a face, the poorest subject in the world to make a poor picture of, indifferently drawn, expressionless and badly colored, they are common place, for such are round us everywhere, and the grandest of which to make a grand or beautiful picture, look upon Guido's Beatrice de Cenci and the faces of many of the madonnas by the old masters, the defective copies we get of them entrance us without any color.

The cheap chromo pedlar or premium subscription agent recites a long rhapsody about the beauty and grace and brilliancy of his sample pictures and if perchance anyone suggest that they are too brilliant he tells you are entirely mistaken, that the mixture of colors is classic and will be found in the finest and most valuable works of art in the world; but, we would suggest they are not classically mixed. Not all the old masters succeeded in blending harmoniously red and blue and green and yellow; and a classic drapery must always contain at least the two former) some of them used only neutral tints, and others not so ready to see, nor willing to acknowledge their deficiency, have left us pictures, whose grand conception have been marred for all time, by glaring and incongruous colors.

It is not to be wondered at that cheap chromos are harshly colored, but it is a pity, when so much of this world's beauty consists of color, that such doubts should be palmed off upon so many of us, as fine works of art; they give us no idea of what art has achieved. Neither is it strange that so few people are able to detect discordant (if our musical friends will allow us the use of the term) colors, when many persons who think they know all about colors in dress consider it good taste to wear scarlet and light green together, when to an artist's eye, few combinations are more harsh. Some shades of green and red are perfection together—but they cannot be written here, we are wandering and must return to our chromos.

It need scarcely be told that chromos are printed from stone, though we have heard people say in apology for a poor picture that it was only a chromo-lithograph, that is just what they are, colored lithographs, but instead of being a black and white lithograph colored with a brush the color is printed on and there is a separate stone for each color, hence the expense of the fine, soft toned ones; with but few stones, few shades can be obtained and the picture is necessarily hard, and, if bright colors are used, glaring. In a landscape chromo there is no better test of its worth, than the appearance of its sky, if that reminds you of a piece of stone china, rest assured that the picture has no more substantial merit to rest upon, turn it upside down and leave it. If, instead, you can imagine that you see away off through the soft haze, among the clouds and far out into the horizon, sit down and study it, we think it will do, there will be no broad, smooth, shining square

to represent a meadow and the trees will not look as though flattened and pressed to the paper; whatever may be the prevailing hue of the sky and trees will be found imparted more or less to all other objects, and pervading the whole picture.

If you look out the window you will perceive the same effect, nature gives us nothing inharmonious.

In midsummer, the landscape presents to the eye a much greater quantity of some dark sober tint, than it does of green, and the ever changing lights and shadows break all matters of color into innumerable tints.

We have made a small collection of all the kinds of chromos which we have chanced to see and must express our decided preference for those of German manufacture: they are so much softer and so much more natural; but American chromos have been improved wonderfully in the last five years and several firms now manufacture beautiful pictures, for a price which is very low compared with the price of good pictures of any other kind.

We have some young artists of really great capabilities and we are proud that in nearly all instances, they are being appreciated and encouraged according to their deserts. Ruskin says "that it is reserved for England to insult the strength of her noblest children, to wither their warm enthusiasm early into the bitterness of patient battle, and leave to those whom she should have cherished and aided, no hope but in resolution, no refuge but in disdain." Rather let it be said of us, that like Italy, in our great period, we know our great men, and do not despise their youth.

For the Kansas Farmer.

OLD DOG FAITHFUL.

BY MRS. N. STRATTON BEERS.

CHAPTER II.

With the touch of my foot upon the first of the stone steps there came into my heart again the same nervous dread, or presentiment of something terrible to come, which I had before attributed to the fact of having so large an amount of money in the house, and spite of every endeavor I could not drive it away. To add to my nervous excitement, Faithful snuffed at the ground in front of the house, at the steps leading up to the porch in such a new strange manner, giving short snappish growls or barks, and going down again and back in the same way several times. I called him to me at last, and told him to be still, stamping my foot in some irritation; he obeyed me inasmuch that he followed me quietly into the sitting room and squatted himself upon his rug, but he kept his great wistful eyes upon me, and occasionally gave that short peculiar bark, as if asking permission to extend his explorations which privilege I denied him because of my nervousness.

The night came on at last. There was no moon, and clouds had risen so that even the stars did not shine out; the children were tucked away to sleep, and Faithful unnoticed by any of us had changed his bed from the rug to the carpet in front of the closet in our sleeping room, and no entreaties or commands from either Hester or myself could induce him to move.

Wearily passed the evening hours away, and when nine came I saw Hester dozing in her chair. "Hester," I said, "the girls are sound asleep, and will never know the difference if you sleep with me to night instead of in the room with them. I am dreadfully nervous, and I know I will not sleep a wink if you leave me; would you just as lief stay with me to night?" "I would if that horrid dog would come back where he belongs, ma'am, but he acts curious enough, seems to me all day."

"Pshaw! I have just thought why he prefers the other room to this one, Hester, this one is so warm!"

"Like enough it is that! He knows so much, that dog does, I wish he could talk; see he looks at you now, as if he had something to say."

We had turned off the gas in the sitting room and gone in to the other preparatory to going to bed, and she now directed my attention to the dog, who looked at me with the queer wistful look still in his eyes. Going over to him I knelt down and putting my arms around his neck I laid my face against his, yes! I even kissed him over and over and permitted him to lick my hand with his great wet tongue.

On raising, I noticed the key in the closet door hanging as if just ready to fall. I put out my hand and pushing it in turned it until it locked the door, as I did so the dog sprang up on his hind feet and smelt at the key hole for a full minute, then turned his head round at me and again gave one of his short barks. "It is locked old boy don't you believe it? See! and taking hold of the knob I turned and rattled it, are you satisfied now that no curious rat can open the door, and come out in our domains? If you are, just go back to your rug and compose yourself for a night's sleep."

To our astonishment, the dog got down, walked straight in through the open door, and stretched himself on his rug with a long drawn breath. "That dog beats the nation," Hester said, and talking of him and his many tricks and wise ways we both fell asleep, and slept I do not know how long, when I waked with a start, and instantly sat up right in bed, holding my breath from fear. Distinctly I heard three soft raps on the floor from below, coming I knew intuitively from some one in the cellar below; the raps were instantly answered by two which seemed to come from the closet.

Imagine, you who can the sensations of horror that held spell bound every faculty for the space of I know not how long, one or two or three minutes it might have been, but to me then it seemed an eternity, then I breathed again, and began to think; my husband kept

a loaded revolver in one of his drawers, and I knew I could put my hand on it in the dark, and inspired by more courage than I ever had been possessed of before in my life, I laid back the covers, crept to the bureau, softly drew out the drawer, took the revolver and then sat down upon the bed waiting—I knew not what. At the same time I fancied my olfactory took in the faint odor of chloroform, but as it grew no more definite I concluded this was just a fancy; suddenly I felt a draft of air blow over me from the front room, heard a slight growl from Faithful, then what seemed to be a spring made by him, followed immediately by a heavy fall of something to the floor, successive growls from Faithful, and sounds as if some person was struggling with him I sprang to the door, and at the window that looked out on the porch, I could see the form of a man, I aimed the revolver at him and deliberately fired once—twice, as fast as I could, a wild scream followed the report, and the form disappeared from the window.

"For heavens sake, Miss Stone, where are you?" Hester asked in a voice husky from fear. "Here I am at this door, waiting to shoot any more forms that I may see," I answered greatly reassured at the sound of Hester's voice.

How long I waited then at the door we could not guess; never a sound more, saving an occasional movement from the form on the sitting-room carpet, each time followed by a muffled angry growl from Faithful. Hester rose quietly and taking the covers from the bed she wrapped me in these and pushed a chair against me into which I dropped.

"Shall I light the gas?" she asked in a whisper. "No, keep quiet!" I replied.

She put on her clothes and came and knelt down at my side and clasped my waist with her arms, and thus we waited for the dawn. With the coming of the first faint streaks of light, our courage strengthened; we could now see that the man lying on the floor was firmly held by the throat with Faithful's teeth, and that if he moved the least the dog would tighten his grip, which he relaxed slightly as soon as he grew quiet again.

Finally when day-light was fairly broken I whispered to Hester that she must go and bring assistance from the town, in which we could now hear the rumbling of carts and other vehicles. Without a word she rose went out down through the kitchen, and in a few minutes I heard her voice talking to some one as they hastily came up the kitchen stairs. It proved to be some men she had found passing the gate, whom she had made acquainted with our night's adventure.

Hester had the presence of mind to procure ropes from the kitchen, with which the men proceeded to bind hand and foot the man who had so long lain, held by good old Faithful's teeth, but even when he was securely bound the dog refused to relinquish his hold until I bade him do so, then going all around him growling fiercely all the time, he seemed after the survey to feel satisfied that he was really secure, and bounding to the closet door he growled and pawed, looking all the time at us. Upon my telling the men of his singular manner the night before, of the raps I had heard, they proceeded to examine the closet. On opening the door they found a boy of some sixteen, dumb with fright, who offered no resistance as they bound him, and placed him beside the other. In the closet were found pieces of meat which he confessed were poisoned for the purpose of killing the dog, also a sponge and a bottle containing chloroform, with which, had I not just happened to have locked him securely in, he would have rendered us all insensible while the men would have ransacked the house; going out to look for the man I had fired at they found blood on the porch in considerable quantity, and smeared over the steps, as if the wounded person had dragged himself or been dragged away but there all sign disappeared.

When my husband returned and heard the story he went immediately to see the prisoners, and found in the prison one of the parties who had promised to meet him and failed to do so.

The empty cellars were also searched, and it was found an easy entrance had been effected through a window which was almost hidden by the shrubbery, and had hitherto escaped our notice.

Years have passed since that eventful night, but we still live in the great house, my brother having concluded to 'bide with us' with his sweet wife, and now two noble dogs sleep, one in the front hall, and one in the kitchen below, to warn us if danger approaches, while we have learned to heed their snuffing and barking as tokens of something not right.

For the Kansas Farmer.

A KANSAN IN EUROPE.—No. 9.

BY JAMBLER.

South from Edinburgh, a three hours ride brings us to Melrose Abbey, so famous in romance and poetry. It is one of the finest specimens of gothic architecture in Scotland, and the handsomest and most picturesque old ruin we have yet seen. This Abbey was founded in the 12th century, by David I, and was mostly destroyed by the English in 1322; yet its ornaments and edges are as sharp as when newly cut. In the niches on the east wall are two figures, one representing St. Paul, the other St. John, and when we consider how many centuries ago these images were cut, the rude inferior tools employed to work with, they are marvels of workmanship and beauty, and excite the admiration and wonder of every one who visits them. Many of the royal families of Scotland are interred here; among whom is Alexander II. The heart of Robert Bruce is also buried here. The Monks Walk was a favorite resort of Sir Walter Scott. It was his wont to pace this walk by moonlight, for hours, with no companion but his thoughts. Here it is said, he composed many of his poems, and gave character to the Waverley novels. Dryburgh is another picturesque old ruin about a mile from Melrose; it has not as handsome cut arches and figures, but is still very handsome. It was founded during the reign of David I. One of the Darnley family was its last Abbot, and is buried under the altar. Sir Walter was buried here at his own particular request; his tomb is in the St. Mary's aisle, which is the most beautiful part of the Abbey. His wife's tomb is on his left and his eldest son, Col. Walter Scott, on his right, while at his feet lies the remains of his son-in-law Mr. Lockhart.

At the entrance to the ruin is an old yew tree, said to have been planted at the time the Abbey was built; it is still fresh and growing. About three miles from the Abbey, stands Abbotsford, situated on the banks of the silvery Tweed. Of world-wide renown, is this mansion; not that its position or beauty is so much to be admired, but the name of the author that once inhabited it, is fresh in the memory of every individual who speaks the English language, and must remain so for ages. This mansion is now the property of a Mr. Hope who married a grand-daughter of Sir Walter; he now takes the name and title of Sir Hope Scott. The principal apartments are the armory, hung with nearly every kind of weapons, many of which were presents from the sovereigns of Europe to the gifted author. The dining-room contains many handsome portraits and pictures. The library has a choice collection of over 20,000 volumes. In this room is a glass case containing the last clothes Sir Walter wore, knee breeches, striped vest, shoes and gaiters, and Greeley white hat. The study which contains a few volumes of reference, remains nearly as the poet left it; and the drawing-room is a spacious apartment furnished with dark antique furniture. We thought the individual who showed the house, was the owner, from his lordly manner towards us, but as he asked us for the usual shilling, perhaps we were mistaken.

For the Kansas Farmer.

COMFORT AT NIGHT.

BY CHARLOTTE SOULLARD.

We pass one third of our whole life in bed; and as much of the whole value of our labors during waking hours depend upon how we sleep, every trifle contributing to our comfort is worthy of attention. The lighter the bed clothes the more refreshing and sweet will be the repose. Comforts made of delaine or other thin woolen material and stuffed with wool are far preferable to those made of cotton, and are warmer even than blankets, since the fibers of wool are wider apart and the same weight goes farther in retaining the warmth of the body. To be covered warmly without any perceptible increase in the weight of the bedding, make a paper comfort, by tacking two or three thicknesses of newspaper between widths of calico, or if away from home, throw off the top covers from the bed, spread two or three large newspapers over it and replace the cover. Even the softest wool blankets feel unpleasantly to the face and hands if they come in contact with them. Those who do not like to dispense with their warmth can baste a piece of bleached muslin or linen half a yard deep on both sides of the upper end of the blanket. Eider down makes the lightest, most expensive and most delicious of quilts; many ladies make their bedclothes too short and too narrow; sheets should be three yards long, two and a half yards wide, quilts should be two and three quarters of a yard long and two and a half wide. Thin quilts for summer use may be made by sewing widths of light calico together, adding one or two layers of cotton and quilting in rows or fans about a half inch apart. They are easy to wash, but during the day must be covered with a spread or counterpane. I have seen a quilt which was brought from England. It was made by placing a large woolen blanket between two layers of calico, and running lines with the needle about three inches apart. Some one has said that old flannel, and partly worn blankets can in this way be transformed into bed coverings very useful if not ornamental. I wish to mention two ways of adding to the comfort of the feet while sleeping. Have a well smoothed piece of hard timber, twelve inches long and twice as thick as a common brick. Heat thoroughly and it will be found a capital thing for warming cold feet. It is quite light, does not scorch sheets, and retains the heat for a long time.

I will give some hints from an old person on the use of old newspapers, and I am done. If you are to take a ride of ten or twenty miles against the wind in a cutter, spread a newspaper over your chest before you button up your overcoat and you will not be chilled. In all cases when you wish to keep heat in and air out old newspapers come admirably into play. Many a poor man has shivered through a winter's night when in the room there were old newspapers enough, if spread beneath his scanty covering, to have kept him warm and comfortable. Even a cellar or a miserable shanty may be made many degrees warmer if papered with several layers of newspapers.

THE CULTIVATION OF FLOWERS.

The approach of spring reminds us that now is the time to mature our plans for improving our grounds, and securing a supply of flower seed for spring planting.

To one who neglects to cultivate flowers, and shrubs, the country cannot be made to yield a full share of enjoyment.

Country life produces enjoyment just in proportion to the measure of agreeable occupation it affords the mind.

The love of the floral kingdom furnishes boundless store of healthful food for thought. Those persons who fail to open the book of nature, and read its wonderful pages, written by the Divine hand, their minds lacking occupation, soon weary of country life, and long for those busy rounds of social dissipation, which city bred people misname pleasures. In the city, the wealthy may, for a trifling expense procure choice flowers, we must create our sunshine around our aural homes. A few

dimes spent for flower seeds will produce an amount of pleasure which can scarcely be estimated.

The love of this beautiful occupation is increasing, every home, however humble, may enjoy flowers. The lonely cabin on the prairie may be beautified by these children of nature.

The cultivation of flowers has a refining influence upon families. The children love home more for these lovely surroundings; we naturally expect to find good books and choice papers in such homes, with contented happy children.

To the farmer's wife I would say, plant flowers; if you cannot buy expensive flower seed plant a morning glory and train it over your window.

E. D. V.

New Advertisements.

Hearing Restored.

A Great Invention, by one who was Deaf for twenty years. Send stamp for particulars to JOHN GARMORE, Lock Box 58, Madison, Ind.



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VARIETIES—Liberian, Regular Sorgo and Omeceana. Prices—By mail, postage paid, 50 cents per lb.; by express, 25 lbs or less, 30 cts per lb.; over 25 lbs, 20 cts per lb, package included. The Necanza is dropped from our list. Regular Sorgo and Omeceana are becoming subject to mildew and rust. We therefore recommend the Liberian for general cultivation. Two to three pounds required per acre. Money with order. Sorgo Hand Book sent free. BLYMYER MANUFACTURING CO. Successors to Blymyer, Norton Co. Cincinnati, Ohio.

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LITTLEMAN, Springfield, Ohio, Breeder of all varieties of pure bred Poultry, Rabbits, Pigeons, etc. Singing Birds. Send for Price List.

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I have thirty varieties of small fruits, all unmixcd and true to name, at very low prices.
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Thoroughbred Short-Horn Bull, from the famous McMillan herd, will be sold low or exchanged for a Horse. JOHN H. BYRD, Leavenworth, Kansas.

For Sale Cheap.

A Very superior Thoroughbred Jersey Bull, 2 years old this spring. J. C. STONE, Leavenworth, Kas.

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ALL persons who wish to raise the Largest and Best Cabbages in the world, should send twenty-five cents for one package of imported
Alsatian Cabbage Seed.
Cabbages of the finest quality and weighing upwards of sixty pounds may be raised in any part of the United States from these seeds. Each package containing an ounce, will be sent free of postage to any address on receipt of price, 25 cents each, or five packages for one dollar. Full directions how and when to plant accompany each package. Address: M. M. REYNOLDS & CO. 86 Amity street, New York City.

ROAD NOTICE.

NOTICE is hereby given that a petition will be presented to the Board of County Commissioners of Shawnee county, Kansas, at their April session of 1874, asking that a road be established, as follows:
Commencing at the Wakarusa valley road near the southeast corner of the southeast quarter of section 28, township 15, range 18, thence west on said line until it intersects the said Wakarusa valley road.
Also to vacate the said Wakarusa valley road from the commencement of this road to where they again intersect.
W. COCKER, Principal petitioner.

NEW CROP FRESH AND GENUINE WETHERFIELD ONION SEED

And Other Choice Vegetable Seeds.

MARKET GARDENERS' STOCK.

Best Wetherfield large red Onion, choice stock lb \$3 00
Medium Early Red Onion, " " 3 50
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White Portugal or Silver Skin, " " 4 00
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Comstock's Pro. Flat Dutch " " 30c 4 00
Denling's Early B. Turnip Beet, " " 10c 1 00
Egyptian " " true " 40c 4 00
Boston Hothouse Lettuce, " " 50c 5 00
Boston Market Celery " " 50c 5 00
Imperial White Sugar Beet, " " 60
Saxon's Alpha Peas, earliest known " 50
Early Minnesota Sweet Corn, earliest known " 50
The above and many other varieties sent by mail on receipt of price. My Annual Seed Catalogue and Price List for gardeners, farmers and grangers mailed free on application. Special rates to grangers who apply officially through their secretary or purchasing agent. Address R. D. HAWLEY, Seed Merchant, Hartford, Conn.

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I Offer for sale two Imported Draft Stallions; one a five years old Clydesdale, weighing 1,600 pounds, dapple gray color, and has taken a prize wherever exhibited. Also, two Stallion Colts, of his get, two years old. Also, a Suffolk Punch colt, coming four years old, dark chestnut, good action, weighs 1,550 lbs. If we could get \$1 100 for service of the five year old and \$800 for young horse for last season. Reason of sale, ill health and absence from home by doctor's advice. Terms—\$1 300 each, reasonable time, real estate security. Large discount for cash. DONALD D. McRAE Wyoming, Jones county, Iowa.

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THE English Champion Squash is the largest and best for stock or table use, sometimes weighing nearly 300 pounds. This is the only squash that will mature in a dry season. Price 25 cents per package.

Breese's King of the Early
Is several days earlier than Early Rose. I will send 75 seeds for 50 cents postpaid. EDWIN SANDY, Hopper, Washington county, Kan.

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HAVE on hand a large and fine stock of Fruit and Ornamental Trees and Plants at Hard-Pan Prices for Cash, Live Stock or Grain. Will furnish Granges and Farmers Clubs at lowest wholesale rates. Stock delivered at Ottawa or Osgood City, as may be desired. Price List sent on application. Address, WARD & BROS., Pomona, Kan. Ref. to S. T. Kelsey, Hutchinson, Kan.

2,500,000

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PER 100,000, \$90.00—\$1.00 per 1,000. Second class, 75 cents per 1,000. First class Apple Trees, 2 to 4 years, \$40 per 1,000—\$5 per 100. General supply of Nursery Stock equally as low. Send for catalogue. Baldwin City, Douglas Co., Mo. WM. PLASKET.

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Hedge Plants

For Spring

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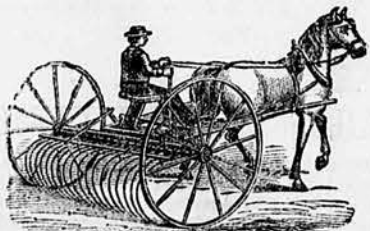
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Champion Reaper and Mower, Kansas Wagons and Carriages, Buckeye Grain Drills, Vibrator, Threshing Machines, Pumps, Washing Machines, Winches, Fan Mills, Sulky and Revolving Hay Rakes, Cultivators, Shovel Plows, Field Rollers, Marsh Harvesters, Victor Scales, Hoes, Forks, Tackles, Spades, Shovels and Garden Tools in great variety.

Rustic and Terra Cotta Ware, Vases and Hanging Baskets.

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Bird Seed, and everything that is kept in a first-class Agricultural House.

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