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Forest Trees for Kansas Prairies.

Address delivered before the Farmers' Institute, held at the Kansas State Agricultural College, Manhattan February 4, 1874.

BY S. T. KELSEY, OF HUTCHINSON, KAN.

Ladies and Gentlemen:—I have been invited to address you on the subject of "Silviculture for climatic change, for ornament, for wind breaks, for profit, etc." on the Kansas prairies.

I shall not endeavor to give you a scientific discourse, but will confine myself mainly to facts that have come under my own observation, and within my own experience. I do this because I believe that known facts are worth more to you than doubtful theories.

Observations have not been extensively continuous and careful enough to determine definitely the full effects of forests on the climate of a country.

It is generally believed that growing trees increase the rainfall, and many facts, or supposed facts, are brought forward to prove the theory; but other accounts equally well authentic seem to prove that they do not. I think, however, that we have sufficient evidence to prove conclusively that forests hold the moisture during heavy rains and give it off in times of drouth. So that even though the annual rainfall may be no greater, the moisture is more evenly distributed, and consequently more available for the use of man.

The leaves and mellow earth in the forest absorb the water as it falls from the clouds. Sticks and roots stop its flow to the streams, so that even the surplus water that can not be absorbed by the earth, vegetation and evaporation, finds its way slowly into the water courses, keeping the earth moist and feeding the springs and streams through long seasons of drouth while in the open country the water falling upon the bare ground, that has usually a smooth hard surface, runs rapidly into the ravines and streams and is soon out of the country.

The little moisture that is left is soon dried up by sun and wind and the crops fail for want of the water that had run to waste.

My early home was in the lumber woods of south-western New York. The country was mostly covered with a dense growth of pine, hemlock, beach and maple. The farms were small and drouth was rarely known to hurt our crops. The soil was almost always damp. The springs and streams seldom overflowed their banks and few of them ever went dry. A spring brook ran through my father's farm. It source was in the hills some miles away, and it ran through an unbroken forest to our place.

For thirty years that creek was not dry for a single day, and a bridge near our house that was not more than two feet above low water mark, was, for many years, undisturbed by flood.

But in course of time the land up the valley was taken and much of it cleared up for farming purposes. As the clearing progressed the flow of water in the brook became more variable. In dry times it ceased to flow and in times of heavy rainfalls it overflowed its banks, often doing serious damage by washing away the soil and destroying crops. And the bridge that was high enough before, had to be raised several feet to prevent its being washed away by the floods. The fields became dryer; we had less damp foggy weather and the crops were often injured by drouth.

I remember this case because I have been familiar with all the facts, have watched it myself for over thirty years, and have its history for many years more and I cannot be mistaken.

The same thing is going on all over the country where the wood lands are being cleared. Streams that were navigable for large vessels will now scarcely float a canoe except in times of flood. Water powers that were once considered the best in the country have become worthless because of the irregular flow. And where the country is generally cleared up they suffer quite as much for drouth in New York, Pennsylvania and Ohio as we in "Drouthy Kansas."

Mr. Thomas Meehan, of Philadelphia, editor of the *Gardener's Monthly*, argues that trees must make a country dryer because the earth under growing trees is dryer than in the cultivated fields adjoining.

Now, while it is a fact that the earth does become dryer under growing trees than in the cultivated fields adjoining, it is only at the edge of the forest where the leaves are blown off; the earth is but half protected from the sun's rays; the heated wind from the adjoining fields absorbs the moisture, and the millions of leaves are constantly sucking it up from the earth below through the roots and stems of the trees and giving it off into the atmosphere to water the adjacent fields.

And we find, just as we might expect, that the earth further from the forest and away from the influence of the trees has less moisture and the crops suffer sooner, while we find the earth containing more moisture as we penetrate the forest.

In European countries where they have given this subject much careful attention, they have great faith in the influence of forests, and it is believed that one-fourth to one-third of the surface should be in forest to produce the best results in agriculture.

Kansas, except a portion of the eastern part of the state, is almost a treeless plain.

It has had the reputation of being drouthy. But after a residence of nine years in the state I am satisfied that the rainfall during the growing season is as great here as in the eastern states. Judging from what I have seen of the effects of clearing off the forests there, I believe that if the state of New York was cleared of every tree and shrub, and millions of cattle were turned out to tramp the ground at all seasons of the year and eat down every spear of grass that attempted to grow—as the buffalo have done here in Kansas—that New York would be as desert-like and barren as the Great American Desert was ever accused of being.

With a proper distribution of forest groves, I believe that the climate of the whole state of Kansas will be as favorable for the production of farm crops as the climate of New York and with our short winters and a soil which is certainly far superior to that of the eastern states, there can be no question but this will be one of the best agricultural states in America.

TREES FOR ORNAMENT.

The home is cheerless, the farm looks bare and desolate and the town is unattractive without trees. No landscape is complete without them. And in no other way can a little time and money be used so advantageously in fitting up the surroundings of a home and adding to its beauty, as in planting and tending a few ornamental trees. They need not be "far-fetched or dear bought." But they should be of such varieties as are suited to the soil and climate and will make a healthful growth for no unhealthy tree can be ornamental anywhere.

I have found the following trees all valuable and suitable for ornamental purposes in Kansas:

Red and White Elm, Green Ash, Box Alder, Honey Locust, Silver Maple, Osage Orange, White and Golden Willow, Sycamore, Black Walnut, European Larch and Mulberry. For a quick growth, the Cottonwood and Lombardy Poplar are valuable, and the Silver Poplar is a good tree for some situations where the sprouts will not be objectionable.

The Austrian, Scotch and White Pines and Red Cedar are all good trees, and the Norway Spruce does pretty well where not too much exposed.

We need to test the trees, especially the Evergreens, west and south of us, and we shall doubtless find many that will succeed here, and give us as good an assortment as our eastern friends can boast.

No person having a home in the country or even in town, if with room for trees, can afford to be without them. They change the whole aspect from a bare, dull, lonesome place to a beautiful and attractive home.

WIND BREAKS

Can be provided for while planting out the forest groves and ornamental trees, by arranging them so as to protect the home grounds, stock yards, etc., from the north and west winds. And in an open prairie country, such a wind break will add immensely to the comfort of our domestic animals and ourselves. A few rows of fast-growing trees will, in three or four years, break the force of the cold winter storms so thoroughly that we will not realize

that we live on the bleak prairies of Kansas.

For a quick growth, the Cottonwood and Lombardy Poplar make good wind breaks. The Osage Orange is of slower growth, but for a permanent screen it is the best deciduous tree that I know of, but I believe the best tree of all for a tight and lasting wind break, where stock will not destroy it, is the Red Cedar.

The trees may be planted in a single row, tree feet apart, or two rows with the trees six feet apart, and trees set to break joints. I prefer the single row and when the screen has grown to the required height it may be sheared annually to keep it thick and in shape. I am asked to tell you something about

TREE GROWING FOR PROFIT.

I believe there is a profit in growing trees for the purpose that I have already named. I believe it pays to grow trees to ornament our homes and modify the climate, to give us cool shade in summer and protect both man and beast from the terribly cold winter storms that sweep across the unprotected prairies, to store up the surplus water that falls at some seasons of the year and give it out to refresh the thirsty fields and young crops in time of drouth. I have so much faith in the value of growing trees for these purposes, that if they had no further value, I should deem my time well spent if I were to devote it all to the preaching and practice of the gospel of tree planting.

But every settler on these prairies needs trees for other purposes.

We must have fuel, and the cheapest and best way to get it, unless there is a forest on the farm or a good coal mine at hand, is to plant trees and grow it.

Any prairie farmer can grow his own fuel in four or five years, and from the experience that I have had, I am satisfied that I can grow my wood cheaper than I can haul it five miles if given to me; and I believe that five to six acres of best varieties well started and well managed will supply an ordinary family with fuel perpetually. And if there is any question as to the trees making it more comfortable out of doors in a cold day there can be no question as to the effects of a good blazing wood fire in doors.

Timber is needed for fencing, building and a great many purposes on the farm, and must be had; and in no other way can it be obtained so cheaply as by growing it. Your neighbors want it and will pay you a good profit for growing it. People all over the country must have timber for building houses, barns and fences, bridges, for railroads and telegraph lines, for furniture, farm implements and machinery. The demand is increasing annually and the stock is diminishing.

A few years more, at the present rate of destruction, will strip all of our available natural forest of its best timber, and the great prairie states of the west must grow their own or suffer for want of it. And as the timber can be grown here cheaper than it can be freighted from any natural forests that we now have, we can be sure of a paying market for all we grow beyond our own wants. In western Kansas there are some difficulties in the way of growing forests because we have not experimented sufficiently to know just what to grow and how to grow it. But in eastern and central Kansas, it is an easy matter and costs but little in time and money, to plant and tend a few acres of forest to make a valuable grove: Begin with such kinds as are cheaply obtained, easily propagated and of rapid growth, preferring such as produce the most valuable timber for the purposes for which it will most likely be needed.

Don't depend upon any tree because it does well somewhere down east. Experiment as much as you feel able to, but for your main planting use only such kinds as are known to succeed on our Kansas prairies.

The following list of trees was recommended for general cultivation by the Kansas State Horticultural Society, at its last meeting, in December 1873:

Cottonwood, Black Walnut, Ailantus, Box Elder, Ash, Osage Orange.

The trees in the following list have generally succeeded well in Kansas, they are mostly of rapid growth and all except the Evergreens are easily propagated:

Silver Maple, Honey Locust, Catalpa, Red and White Elm, Silver Poplar, Lombardy Pop-

lar, White and Golden Willow, native Gray Willow, Buttonwood (Sycamore), Mulberry, Red Cedar, Austrian Pine, White Pine and Scotch Pine.

The European and American Larch are difficult and expensive trees to handle, and rather slow growers at first, but they have grown well with me after they were fairly started. I think the European Larch will be a valuable tree in eastern Kansas for those who can afford the expense and will give the care necessary to insure success.

The Oaks and Hickories—including Pecan—are easily propagated from seed, but they grow so slow that they will be of no practical value for many years.

The following trees have generally failed to produce any satisfactory results. They may some of them succeed in some localities but they will not do to depend upon:

American Arbor Vitae, American Chestnut, American Black, White and Yellow Birch, Beach, Hemlock, Scarlet and Sugar Maple, Tulip tree or Yellow Poplar of the East, Magnolia, Accuminata (Cucumber tree).

In December last (1873), I measured the growths of the several varieties of trees that I planted in forest groves at Ottawa, Kansas. These trees were planted in rows twelve feet apart and trees about two feet apart in the row. I give below, the average growth from actual measurement:

Trees planted in the spring of 1867—7 years growth.			
NAME:	WHAT PLANTED:	DIAMETER: INCHES	HEIGHT: FEET:
Silver Poplar.....	Cuttings.....	4 to 10.....	25 to 30
Lombardy Poplar,	3 to 7.....	30 to 40
Cottonwood.....	3 to 6.....	30 to 30
White Willow,	2 to 4.....	20 to 30
Golden Willow,	2 to 4.....	20 to 25
Osage Orange.....	2 to 5.....	10 to 15
Black Walnut, ..	Seed.....	1 to 2.....	3 to 10
Burr Oak.....
Hickory.....
by the rabbits.			
Populus grandidentata (Large toothed Poplar), 3 yr p'l'ts.....	2 to 4.....	15
Silver Maple.....	6 to 10.....	20 to 30
American Larch, 3".....	3 to 4.....	12 to 20
European Larch 3".....	3 to 5.....	10 to 15
Osage Orange.....	1 to 3.....	12 to 15
Red Cedar.....	2 to 4.....	12 to 15
White Pine.....	2 to 3.....	5 to 10

Transplanted in spring of 1868—6 years growth.

NAME:	WHAT PLANTED:	DIAMETER: INCHES	HEIGHT: FEET:
Buttonwood.....	Cuttings.....	3 to 6.....	20 to 25
White Elm.....	.....	1 to 3.....	10 to 15
Green Ash.....	.....	2 to 4.....	12 to 20
Honey Locust.....	.....	2 to 4.....	12 to 20
Ailantus.....	Seed.....	2 to 4.....	10 to 15

Transplanted in spring of 1869—5 years growth.

NAME:	WHAT PLANTED:	DIAMETER: INCHES	HEIGHT: FEET:
Cottonwood.....	Cuttings.....	3 to 6.....	20 to 30
Black Walnut.....	Seed.....	3 to 6.....	10 to 15
Ailantus.....	.....	3 to 6.....	10 to 15
Catalpa.....	1 yr plants.....	2 to 4.....	10 to 12

Most of these trees were on rather thin, dry upland prairie soil and had no care after the second year from planting. After the third year the forest was used as a stock field. A herd of cattle running through it browsing and tearing down the trees and tramping the ground so that the trees had no good chance and did not make so good a growth as they would have done if they had had a better chance.

The forest planted in the spring of 1869, on similar soil, had good care—the ground being cultivated for four years—and the trees are now as large as those planted two years before. You will see by the growths, that these trees have made on the upland prairie soil, under a system of most shameful neglect and outrageous abuse, that it takes but little time to grow a valuable grove of forest trees. But they do grow very slow for the man who has not the faith or the energy to plant them.

The proper distance to plant to bring the best returns for the outlay is a question that is not well settled yet.

The savans who write about trees have used up a great deal of paper in scolding because I have recommended to settlers on the prairies to plant in rows twelve feet apart; that crops might be grown between the rows to pay the cost of cultivation and thus get the forest raised at small expense.

They argued that the plan was all wrong, trees must be planted close, about 4x4 feet, because they plant close in Europe, where the labor of planting and tending is worth but a shilling per day, poles of two or three years growth are ready sale at good prices, where the men who plant forests are rich, and even if they needed to borrow money it is worth but three to four per cent. per annum.

Trees planted in such wide rows would surely be short and crooked and gnarly. They would never make good straight timber.

I, who presumed to give such advice would surely come to grief; and grave fears were entertained that some persons might be induced to follow such teachings and it would re-

sult in disaster and misfortune to the individual and the state.

But notwithstanding this cloud of witnesses against them, like General Taylor who did not know when he was whipped, these stupid trees with the weight of argument, reason and common sense against them, and right in the very face and eyes of the fact that they could not possibly succeed, as a timber grove have grown right along making good straight stems and a clean healthy growth, of sizes as I have named to you before, and they stand there to show for themselves.

I have recommended the plan of wide planting not because I believed it would make a better forest but because it could be done so much cheaper, and many people would plant who could not or would not, if they must expend a large sum in starting the forest and get no return for several years.

I have planted out groves at various distances, from 2x4 to 4x12 feet, but it is too early to tell what the relative cost and results will be. The common opinion among tree growers is probably correct; that it will make a better forest to plant in rows not over six feet apart. It will not need to be cultivated so long as when the rows are further apart, the trees will run up more regular, and during the first few years there will be more trees to cut out for use on the farm, etc. But whatever the distance between the rows, I would in no case plant the trees more than three feet apart in the rows. By planting thus close in the row the trees that can be taken out for use as they crowd and need thinning, will more than pay the extra cost of planting and tending, and they will help to make the balance run up tall and straight.

The ground for a grove should be well prepared as for a crop of grain. If in prairie sod, it should be broke early the season before planting, and it should be well and deeply re-plowed and made fine and mellow before the trees and seeds are put in.

Most tree seed, except the Evergreens, should be kept moist until they are planted. Many of them, as the Oak, Chestnut, Walnut, etc., are killed by drying.

The Silver, or Soft Maple, and Elm seed ripen in the spring in this latitude from the first to the middle of May. They should be gathered soon as ripe—never allowed to dry and planted within a few days.

They will grow and make good plants the same season.

Seed that ripens late in the season may be put out in moist (not wet) sand or leaf mould and kept in a cool cellar or on the north side of some building till spring, and then planted as soon as the ground is in order.

The nut trees do not transplant well and the seeds should be planted where the trees are to remain.

All other seeds that start with a strong growth may be planted right out in the forest rows, putting in hills a few seeds in each the distance the trees are expected to stand and thin out to one tree in each hill, when one year old, or sooner, if the extra trees are not wanted. Seeds that start with a feeble growth, better be planted in seed beds and transplanted at one or two years old. Evergreens, Larches and all classes of resinous trees require shade and skillful management in starting and it will hardly pay one not skilled in the business to attempt to grow them from seed. The small plants can be bought very cheaply of Robert Douglas, Waukegan, Illinois, who makes a business of growing them. They should be bedded out, mulched and if dry, they should be shaded the season after they are transplanted, and after one year in our climate they may be set out in nursery rows. The ground should be kept mellow about them and if very dry they should again be mulched.

All trees that are to be removed except the Evergreens, may be dug in the fall and buried until time for spring plowing. In this climate I would not plant out any in the fall. The Willows and Poplars including the Cottonwood grow from cuttings, which may be taken off at any time between the ripening of the growth in the fall and the starting of the sap in the spring, though I prefer not to cut when the wood is frozen.

The forest ground should be well cultivated until it is shaded by the trees.

Do no trimming, except to cut off sprouts that may start up about the roots, and take off extra leaders that would make forked trees. All other limbs will die off as fast as the trees do not need them.

Thin out as the trees grow so as to crowd, and check their growth; always leaving the straightest and best except when needed for some special purpose.

The cost of growing a forest need be but little to a person living on the place. By getting the cheaper varieties and planting in rows twelve feet apart, the crops that can be grown between the rows may, on good ground be made to pay all costs of plants, preparing ground, planting and tending. If the rows are planted closer it will cost more, but it may more than pay in the extra value of the timber.

To hire the work all done for a forty acre forest, with trees set 4x4 feet or 6x5 feet would cost about as follows:

Breaking 40 acres, at \$3.00 per acre	\$120
Replowing same, at \$2.50 "	100
Seeds, cutting, plants, 44 @ "	100
Planting, man and boy \$2.50 per day for 40 days	100
Cultivating 1st year	100
Cultivating next 3 years	120
Total cost	\$700

The value of a well grown forest is not easily estimated. We have not sufficient data

to determine very accurately the amount and value of timber that different kinds of trees will produce in a given number of years. We know that an artificial forest will produce much more timber than a natural forest and it will be in better shape to handle.

At from four to six years from planting, it begins to pay, in furnishing shade, wind breaks and fuel. At from six to ten years it will furnish fencing poles and small timber for various purposes on the farm. At from ten to fifteen years it will supply nearly all the wants of the farm for fencing and building purposes and valuable timber to sell, while the tops of the trees will furnish fuel. At from fifteen to twenty and twenty five years it will make telegraph poles, railroad ties and timber for almost any use for which timber is needed.

I have seen the profits of growing a forest figured at from \$100 to \$1,000 per acre, and it may be realized, but it is not safe to count upon unreasonable profits in any business. It is safe to count upon reasonable profits in producing anything that every body must have and that you can produce as cheaply as any one else.

GROWTH IN THE WINTER TIME.—I. H. J. Memphis, Tenn., writes: "In a recent article in the *Gardener's Monthly*, I think you wrote as if you thought the roots of trees grew all winter, and that the buds enlarged as the roots grew. I find no reference to this in Downing's *Theory of Horticulture*, and would be glad to know if this is a fact or only conjecture."

[We do not know why the physiologists referred to make no mention of the fact. It was long ago, proved it very conclusively, and we have over and over again in the *Gardener's Monthly* shown that the principle must be true, and the important part such knowledge plays in practical gardening.]—*Gardener's Monthly*.

Agriculture.

For the Kansas Farmer.

A NEW ENEMY TO THE SWEET POTATO.

BY E. A. FORBES.

Prof. Riley in his second report gives the natural history of the most common insect enemies of the sweet potato, in which he describes five species of beetles that have been proven injurious to that plant.

He says that with the exception of the cucumber flea beetle (*Meloida cucumeris*) and a few solitary caterpillars, he has never found any other insect than tortoise-beetles on the sweet potato.

Last summer, and during the summer of 1873, I collected many specimens of a beetle, that I found, sometimes in considerable numbers, on vines of the sweet potato and also on vines of the wild sweet potato, (*Ipomoea pandurata*).

This beetle is the *Paria Viridicyanea*—Crotch—and belongs to the same great family Chrysomelidae—but to a very distinct group from the one in which the before mentioned tortoise-beetles are placed, being more nearly related to the well known Colorado potato beetle (*Chrysomela Ten-Lineata*—Say).

It is a highly polished deep blue beetle about three-tenths of an inch long, very convex above, and with the head sunk to the eyes in the forepart of the thorax. The under side of the insect together with the antennae are deep brownish-black, the latter lighter brown at base, and the legs are deep blue like the upper surface of the beetle.

The blue is sometimes tinged with greenish especially on the el. tra.

This insect feeds on the leaves, eating irregular holes through them, and if as common on the vines as I have seen them, would do great damage to the plants.

They have a habit of folding up their legs and antennae and rolling from the leaf to the ground whenever the vine is disturbed, and will also do it upon seeing any one near them. As soon as they reach the ground they hastily seek a place of concealment, and if allowed, quickly crawl into cracks or under clods from which they emerge and again attack the leaves, when the danger is past.

It is much more liable to attack the wild sweet potato than the tame species, and probably would eat other wild *Convolvulaceae* if they were placed upon them. If they would confine their depredations to the wild potato, we would look upon them as friends rather than enemies, for a more tenacious and quickly spreading weed is not easy to find.

In all probability, the use of paris green would be of great advantage where this insect is sufficiently numerous to be very destructive and in that case, the powder should be applied in the same manner as it is for the Colorado potato beetle, to which this insect is so nearly allied in movements.

PROFIT IN WHEAT GROWING.

EDITOR FARMER:—I have the pleasure of giving you and my fellow farmers my experience in "Tea Spring" wheat, last season. First I give the result of the sowing of 160 acres. The ground was stubble and I plowed in March about the middle; sowed the same on the 21st and 23d. Ground in fine order.

ITEMIZED STATEMENT.	
Plowing 16 acres at \$1.50 per acre	\$24
Harrowing 1 day man and team	3
Drilling 1 day man and team	6
Use of Drill 16 acres at 20 cents	3.20
Rolling 2 days man and team	3
Use of Roller 1 day	1
Seed wheat 16½ bushels at \$2	33
Harvesting and Stacking	39.80
Threshing 6 teams, 12 men 4 days	43
Hauling 19½ miles to market at 2 cents	16.32
Total expense	\$163.32
201 bushels of wheat sold at 95c	\$191.90
Net proceeds for use of land	28.58
	\$198.80 \$193.80

Second; sowing of 17½ acres that was in corn the previous year, I cleared the stalks off then drilled without plowing or harrowing.

ITEMIZED STATEMENT.	
Clearing off 17½ acres of stalks	\$6.75
Drilling ½ days man and team	4.50
Use of Drill 17½ acres at 20c	3.50
Rolling 1 day man and team	3.00
Use of Roller 1 day	1.00
Seed wheat 18½ bushels at \$2.00	37.00
Harvesting and stacking	51.00
Threshing	32.45
Hauling 19½ miles to market, 215 bush at 8 cents	17.30
Total expense	\$156.40
215 bushels of wheat sold at 95 cents	\$204.25
Net proceeds for use of land	\$47.85
	\$204.25 \$204.25

This was sowed the 28th and 29th days of March. The grain was a good quality but did not yield.

The grain was too thin on the ground. It was not a lack of seed, but I think injured by the wet and backward season. If that was not the cause will not some of the more experienced please inform us what the cause was?

I see statements published that spring wheat can be produced for 20 cents per bushel. I will say it cannot be done if the grain is threshed and marketed. I intend to sow 40 acres of the same kind of seed this season.

Yours truly,
A. W. WATERS
Severance, Doniphan co., Kan.

Potato Sugar.

The manufacture of sugar from fecula, or starch, is carried on to a great extent in France, and the process appears to be better understood there, than in any other country. The mode of proceeding is to have large leaden boilers, in which is one ton of water, heated to a boiling point, and to this twenty-one pounds of sulphuric acid, at sixty degrees, diluted with twice its weight of water is added. The vessel is provided with a wooden cover, coated with copper which has a small opening to allow the liquor to be stirred with a wooden rod. After the liquor begins to boil, eight hundred pounds of starch flour is gradually sifted into it, care being taken to prevent the formation of lumps and have the boiling uniform.

In some factories, the starch is first mixed with water, and placed in a vessel above the water, and made to flow into the boiling acid in a uniform stream by a tube. The boiling is continued about fifteen minutes after the starch is put in, and then the fire is so regulated that the liquor ceases to boil, after which twenty-two pounds of chalk are added to neutralize the free acid—this, however, being put in very slowly, on account of the violent evolution of the carbonic acid set free by the new combination, which produces sulphate of lime. The liquor is then strained through coarsely pulverized bones spread on straining-cloths, and this filtered liquor is now gradually brought into flat pans and evaporated till it is reduced to half its volume, when it is a second time boiled, with charcoal and bullock's blood, and then refined and filtered. One hundred parts of starch yield about one hundred parts of sugar, which is obtained by concentrating the syrup, and putting it into casks, where it is left to cool, the crystallized sugar being found in the casks in two days.—*St. Louis Republican*.

Table of Weights and Measures of Farm Produce and Amount of Seed Sown to the Acre.

	Per bush.	No. of lbs. to acre.
Clover Seeds all kinds	60 lbs.	6 to 10
Timothy	45 "	10 to 15
Blue Grass	14 "	14 to 28
1 c. Top	14 "	7 to 14
Ordnance Grass	14 "	14 to 28
Mixed Lawn Grass	14 "	14 to 28
English Ryegrass	20 "	20 to 40
Barley	32 "	32 to 64
Corn	56 "	56
Corn (in the ear)	70 "	70
Buckwheat	60 "	10 to 15
Sweet Potatoes	20 "	20
Sweet Potatoes (for seed)	45 "	45
Hungarian	48 "	36 to 48
Barley Potatoes	45 "	45
Hemp	32 "	1 to 2
Millet	60 "	32 to 64
Flax	56 "	56
Osage Orange (in nursery beds)	32 "	26 to 32
Rye	56 "	1 to 1½ bu
Wheat	60 "	10 to 15 bu
Oats	57 "	3 to 5 bu
Top Onion Sets	28 "	2 to 6 bu
Peas (Field)	60 "	1½ to 2 bu
Sorghum	42 "	3 lbs
Broom Corn	60 "	10 lbs
Beans	60 "	10 lbs
Beans (Castor)	46 "	23 lbs
In order to make list of weights and measures complete we add:		
Apples (dried)	24 lbs.	
Peaches (dried)	33 "	
Cranberries	35 "	
Green Apples	50 "	
Corn Meal	50 "	
Pop Corn	50 "	
Barley	32 "	
Rye Malt	40 "	
Corn Malt	40 "	
Barley Malt	40 "	
Stone Coal	80 "	
Charcoal	22 "	
Shrub Peas	60 "	
Brans	30 "	
Upland Cotton Seed	30 "	
Salt	50 "	

The Number of Plants, Trees, etc., Required to an Acre.

Distance.	Number.
1 ft by 1 ft	43,560
1½ ft by 1½ ft	19,360
2 ft by 2 ft	10,890
2½ ft by 2½ ft	6,970
3 ft by 3 ft	4,840
3½ ft by 3½ ft	3,610
4 ft by 4 ft	2,722
4½ ft by 4½ ft	2,019
5 ft by 5 ft	1,472
6 ft by 6 ft	1,101
8 ft by 8 ft	676
12 ft by 12 ft	302
15 ft by 15 ft	194
20 ft by 20 ft	108
25 ft by 25 ft	70
30 ft by 30 ft	48
40 ft by 40 ft	27

All the evergreens (junipers excepted) may be sown dry or soaked in tepid water for twenty-four hours before sowing. Juniper seed will not germinate till the second year. As a rule in sowing, the covering of the earth should be governed by the seeds; very light seeds require very light covering, and should be hand sowed the first season. All evergreen seed should be sown in beds and shaded either with cloth frames or brush shade. Larch seed requires the same treatment as evergreen seed.

Apple seed should be soaked two or three days, pear seed three to six days, after which they should be mixed with twice their bulk of earth or sand, and placed where they will keep cool and moist or frozen, until time for sowing.—*Rural World*.

Farm Stock.

Our Consumption of Wool.—The consumption of wool in the United States is much larger than would be supposed by any one not familiar with the subject. The full returns have been made of the imports for 1873, and are arranged in a tabular form in the *Journal of Commerce*, and in some other papers. The first mentioned paper gives the total imports into the United States at 25,461,355 lbs.; Jas. Lynch of New York gives the amount in his Circular at 23,544,000 lbs., and the whole imports into the United States, 52,130,000 lbs., of which 6,002,000 lbs. were re-exported. The *Journal of Commerce* tables show that of the imports of New York, a little less than one-fourth was imported from the Cisplaine Republic; less than one-fifth from England; one-seventh from Russia; one-twelfth from Australia and the Argentine Republic; one-sixth from Africa; one-twentieth each from France and Hindostan, and the balance from various other points. Probably a portion of the wool imported from England is not grown there but is from the Cape or Australia. It will thus be seen that a majority of imported wools are what are termed clothing wools. At the outset of the late panic there was a prospective famine of combing wools, but that depression shut up several large factories, which threw their stocks of wool on the market, thus supplying present needs of other factories. Should those mills wish to start up,—as they must or rust out, there is no wool for them of any consequence, even in Canada.

Lynch's Circular, above referred to, gives the whole clip of the United States at 174,700,000 lbs., and the total consumption during 1873 at 237,640,000 lbs. The Economist estimates the clip of 1873 at not much above 160,000,000 lbs. Taking this estimate as correct, the consumption for the year 1873 is over 200,000,000 lbs. The Boston Shipping List estimates the consumption at 220,000,000 lbs. The Economist says that we are now "short sixty millions pounds of wool to run our mills for the next six months, and where we are to get this from seems a puzzle that worries economists and manufacturers alike."

In the *Prairie Farmer* of Jan. 24, are given estimates from a Boston paper stating that the stock on hand (surplus the Farmer calls it) Jan. 1st was 125,484,007 lbs. Lynch's Circular gives the stock on hand at 33,964,000; which estimates are corroborated by the circular of Geo. Wm. Bond & Co., also of New York. The difference is in the estimates of wool in dealers' hands only, and in those of dealers and manufacturers both. The difference of 91,320,007 is the estimated stock in the hands of manufacturers, and of course is not in the market. The *Prairie Farmer* in forecasting the probable needs and supply, says that the California clip will soon be in the market and will supply a portion of the sixty million requirements. But the Economist objects very strongly to the hasty use of the next clip, saying that "the fact is, any manufacturer, no matter how experienced, cannot make a good cloth out of fresh wool. And here is where the great trouble arises with our manufacturers. Nearly half the goods they make are mere rubbish, with a rankling greasy smell, and the first hurricane that comes along only brings the dust along in clouds to find refuge on their folds, on their surface, and hence we find the greatest protectionists in the land are the very men that will not touch or wear a yard of American cloth."

The fact then stands out very plainly that more wool is absolutely necessary to supply our manufacturers, and that there is every prospect that prices will be remunerative to the farmer for some time to come. The immense consumption of wool in the United States ought to be provided for by her own farmers. Soil and climate have fitted our country to be pre-eminently wool-producing. The broad prairies at the West and South, can produce clothing wool in any quantity if used for that purpose, and the valuable small farm near our large towns and cities can support profitably ten times the number of long-wool sheep they now do. In wool-growing, as in all other agricultural pursuits, the demand for first quality of product is always greater than the supply.—*Country Gentleman*.

THE HOG CROP OF THE WEST.—The *Commercial Bulletin* gives figures compiled from returns from 380 points, showing that the number of hogs packed up to Jan. 24th, sums up 5,304, against 5,536,640 last season. The average weight this season is 151 pounds, against 166 pounds last season. The decrease in the total weight as compared with last is 116,467, 145 pounds. The yield of lard is 175,043,855 pounds or thirty-three pounds per hog, being a decrease of 40,022,215 pounds as compared with the yield last season.

DISEASES AMONG HORSES.—The *Lewiston, Me., Journal* says a peculiarly fatal form of lung fever is reported as prevailing among horses in the vicinity. Mr. L. L. Tracy of Auburn, lost a horse by some inflammatory disease. The animal was valued at \$250. A few days since, the running Kentucky horse, owned by Henry E. Fitz of Minot Corner, died. The horse, we learn, was valued at \$1500. We hear of several other fine horses which have recently died—some of them, it is said, of a disease analogous to what is known among medical men as cerebro-spinal meningitis.

Tender Footed Horses.

An old man who had much experience in handling and dealing in horses for more than half a century, said to me recently that he had never known a horse to get tender footed that was kept loose in a shed and yard, or in a boxed stall. That turning around and treading with their forward feet in the manure keep them constantly moist and soft. His theory appeared perfectly reasonable to me. I have no box stalls, but I used shavings for bedding, and every morning with a large shovel, I moved the wet shavings under the horse's forward feet, and then the last thing at night covered these with dry shavings for him to lie on. He also remarked that he never knew a flat footed horse but what was a great worker.

Recipes for Worms in Horses.

No. 1. Take of alum, sulphur and copperas one fourth pounds each; mix and give one tablespoonful every alternate day, for a few days, or longer if necessary. No. 2. Give nuxvomica in every feed; 10 or 15 drops, according to age. Give it for three days, or every other day for a week. No. 3. Linseed oil, 1 pint. Spirits of turpentine, 1 or 2 tablespoonful, according to age. Give every other day for a week. If No. 1 fails to effect a cure, after a fair trial, try No. 2. Use No. 3 as a last resort, especially if the patient be a youngster.

Bee Culture.

For the Kansas Farmer.

WINTERING BEES.

BY ELLEN S. TUPPER.

EDITOR FARMER: I notice in a late issue of your paper, that "More Anon," is inclined to oppose wintering bees in cellars or houses. Let his views should find favor in the eyes of some bee keepers, I would like to refer all who may have read his article to the opinion expressed by the most successful bee keeper in the world—and also to the reports from practical men in all the Bee Journals, and at conventions of bee keepers, in all parts of the country. No one can read them, without feeling that the arguments are overwhelmingly in favor of housing bees in winter, under all circumstances.

It is not necessary to repeat the evidence here, but I would like to say, that after an experience of seventeen years, during which time my bees have been wintered in the cellar, I utterly deny the assertion that bees are less prosperous, after being kept in a cellar. On the contrary, my bees were always much more prosperous than those of my neighbors who kept them on their summer stands—and experiments which I have made, with colonies left out, while others of equal strength were housed, proved beyond a doubt, that it took at least a month of spring to put those left out in as good order, as were those taken from the cellar. Your correspondent's assertion, that "bees need pure air as much as other animals," is a queer one. Have pigs and calves the same nature as bees in any thing? Imagine pigs and calves hung up by the legs to secrete their lard and tallow, in the way bees secrete wax. Calves and pigs are not in a semi-torpid state all winter as bees are.

I have wintered from 10 to 260 colonies in the cellar, for seventeen winters, and the results have been perfect. True the fire destroyed all I had in one cellar last winter, but I have put 160 colonies into two cellars again this winter, and expect to take them out in prime order in the spring. (I am much like the woman who on being told that she ought to put a curb round her well, or her children would be drowned—said, "Nonsense, no danger. I have lived ten years near that well, and never had but one young-one drowned in it.) I do not think it probable that I shall again lose my bees by fire—if I do, must "try again." But my last year's sad experience taught me, to divide the risk if possible; and I have my bees in two cellars four miles apart, this year.

As your correspondent evidently means me, though he gets the initials wrong—I would correct his impression, that I buried any valuable bees or queens last year. All my choice imported queens were in cellars, and nearly all were lost when my house took on fire. I burned 12 colonies, for the sake of experiment, in good fair order, and lost all but one. The man who buried them for me, has buried his own for twenty years successfully, and attributes the loss to the severe winter. I shall try it again—for several successful bee keepers approve that way; but I shall not do it expecting to find it a better way than to house them—only for the sake of those who have no cellars.

I do not know what the connection is between excessive doctoring of bees and a monopoly of queens; but I do know, that never since Sampson found them in a dead lion, was it as easy as it now is to keep them profitably and safely. My advice however, to all beginners is, take care of your bees; and until you have experience to guide you, follow the counsels of that bee keeper of your acquaintance, who has best "luck" with bees, whether he keeps them in a "dead lion," or a moveable combe hive. I adopted this rule years ago, and found it a safe one.

Des Moines, Iowa.

Species of Bees.

Entomologists tell us that there are about two thousand species of *apiara* (bees). How many of them are mere deviations from the same primitive type that produces our honey bee, we have no means of ascertaining. Of the honey bee proper (*Apis*), there are but a limited number of distinct kinds. Whether there is properly more than one species, naturalists have not determined. So far as I have seen any evidence, there is nothing to prove that they are not all of the same species, but in their diffusion over the earth they have met with different conditions, that have caused variations in color, size and other peculiarities, and they are but races, varieties or variations.—*Am. Bee Journal*.

WHAT is termed "luck" with bees, is only another name for careful and skillful management.—*Rural Register*.

HONEY is not made by the bees, but is simply gathered by them from the nectaries of flowers, and from that peculiar deposit on vegetation during summer called "honey-dew."—*Dr. Kirtland*.

In all cases of bee-stings, take out the sting not by pinching the base of the sting between the thumb and finger, thereby forcing more poison into the flesh, but by the nail, knife, or something that will scrape it out; then moisten the parts stung with either of the known remedies and by trying the different ones we will find which is the one for each of us.

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. Stribron, 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.
G. W. Stribron,
Sec. State Grange.
Topeka, Jan. 14, 1874.

For the Kansas Farmer.

CHATS WITH PATRONS AND REPLIES TO CORRESPONDENTS.

BY W. P. FORBES.

To J. J. B., Neosho Co., in answer to your question, "In absence of Master and Overseer who takes the chair?" I would say, a Past Master, if there is any present, if not, I should elect a Master *pro tem*. I do not know any authority to make the Steward Master, I should rather say Lecturer, as he out ranks the Steward.

2. Undoubtedly the Assistant Steward should take the place of and attend to the work of the Steward, in his absence temporarily, as it is his duty to perform the work belonging to his office, and assist the Steward. See Constitution, etc.

The Steward, attends to the door not the Assistant Steward; that is a mistake. As you say, these questions do seem a little foolish sometimes, but then we must remember the work is new, and if we employ a laborer to work on the farm, we do not expect him to go ahead without any instructions, so the only way to out is to ask.

3. The Executive Committee are preparing a plan of mutual insurance, that will be submitted to Subordinate Granges in a few days. You can see then what they propose; discuss the question in your Grange and give us your opinion.

Coffey Co.—1. You should ballot on every candidate for initiation, whether the committee report *pro* or *con*.

2. I hold we should confer, but one degree, at the same meeting, but I understand this has been changed at the National Grange; will look up the matter and report as you request through the FARMER. You can get Council Constitution from John G. Otis, State Agent. The law is being changed in regard to Councils; doing away with Councils, and district and county Granges instead. See Amendments to National Constitution in FARMER. Read supplement carefully and you will find answers to questions.

J. H. Lyon Co.—The supplement in the FARMER covers all the questions you wish answered; if you cannot see it in that way, write again.

See decisions of Master and resolutions as published. The supplement to FARMER covers all the important resolutions that should be published.

J. A. Waterville.—You cannot fill out your dispensation, under any circumstances, after the Deputy has sent your application off; so if you only had 15 names when you organized it must remain so, and all coming in afterward, must pay the regular fee of five dollars, so please call the attention of your Grange to this matter, as any infringement of this rule will have to be looked after.

The State Grange settled some of these questions plainly, so please have the decisions of Master and resolutions in supplement read in your Grange, and let the above and other questions fully answered, be settled forever.

R. R.—If you knew how busy we had been at the State Grange, you would understand why we had not answered your letter (as well as forty others) promptly; however, we will try and catch up in a few days. The FARMER will have the State Constitution published as amended, by the time you get this answer.

ADDRESS

Of the Worthy Master, M. E. Hudson, Delivered at the second annual Meeting of the State Grange held at Topeka, Feb. 19-21, 1874.

Patrons of the State of Kansas: Through the favor of Divine Providence we have once more assembled in this the second annual session of our State Grange. We have come up here to take council together and I need not say to you this will be an important meeting; for I am well aware, that all are fully impressed with the responsibility resting upon them as representatives of our Order.

We are yet in our infancy; but our growth is rapid. The success we have had in planting and developing our Order, is without a parallel in the history of societies. Never before was the adage "In union there is strength," so clearly demonstrated as it is in the farmers' movement. Though as yet in our swaddling clothes, our power is being felt and recognized in the land. The giant hand of monopoly that has grasped so tightly the throat of labor, is already slackening its hold; and very soon, if we stand firm and united, and let wise councils prevail, we will succeed and come out more than conquerors, asserting our manhood, free and independent as God destined man should be when he created him. But in order to accomplish the great object of our Order we must be prudent. Not too exacting, remembering that others have rights as well as ourselves. And here let me correct a false impression that prevails to a considerable extent among those outside of our Order, that we are warring against other classes, and if we should get the power we would encroach upon their rights, as we claim they have upon

ours. Not so; the farmers and working classes are noble and generous, and will not ask for themselves more than they are willing to grant to others. The cardinal principle of our Order is equal and exact justice to all; special privileges to none. Hence we make no fight against railroads, banks, manufacturing corporations or other enterprises, as such, only so far as they discriminate against us, making us pay tribute to them to an amount wholly disproportionate to the comparative values of money and labor.

All we ask is equal protection with other interests; that labor may be made remunerative and honorable.

The growth of our Order since our last meeting has been very rapid; and the information from all sections of our state excites the admiration and wonder of its most sanguine friends, whilst those outside of the Order have beheld our growth with undisguised amazement. Since our last meeting closing the first of August, during an interval of six months there has been organized in our state five hundred and seventy-five Subordinate Granges with a membership of fifteen thousand and five hundred; and so far as we are able to learn there is a rapid increase in the number of applications for dispensations. These results have been achieved through the instrumentality of our Deputies, and to these faithful men who have done their work so nobly and so effectively, we owe a lasting debt of gratitude. And here I would say to the Deputies that my correspondence reveals a feeling among many Subordinate Granges, that they do not place that construction on the clause of article 5th, which reads, "any one interested in agricultural pursuits," as was originally designed. True, the clause is capable of varied constructions, consequently much confusion and misunderstanding must arise. During the infancy of the Order when members were few, our strength feeble, and our chief aim social and educational, there was but little danger in construing this clause liberally. But now these circumstances are changed. To be a Patron of Husbandry is not of doubtful propriety, but the proudest of our land are knocking at our doors. The Order is recognized as one of the great powers of the land, and our gates are besieged by hordes of speculators, small politicians, demagogues, office seekers, lawyers, etc., who suddenly discover that they are interested in agricultural pursuits, but we fear only as the beast for his prey. The National Grange has had under consideration several propositions bearing directly on that point; and I feel justified in saying that they will determine by law the proper construction of the constitution; so we may be able to keep our gates closed against those whose only interest consists in what they can make out of us. To admit such can only result in evil, and sow seeds of discord.

For us to decide what interpretation shall be placed upon the word "political" demands our serious and impartial consideration. That we are substantially a unit in the opinion that the Order should in no sense become a political party; at the same time there are questions fundamentally affecting our material interests, which can only be reached through legislation. The question of transportation, taxation, finance and corruption in public places are such as come home to the pockets of our members, and it seems imperative that they be discussed and settled. Shall it be ruled that such questions are political in the meaning of the constitution, and they be denied the privilege of canvassing them on the ground of politics? I am fully aware that this question belongs legitimately to the National Grange, and I am satisfied that body will clearly set forth an authoritative interpretation for the guidance of members; but as there has probably been more said upon the subject in our own state than any other, I deem it my duty to call your attention to this subject, hoping thereby that we might all have a better understanding and avoid all impediments which our enemies are continually casting in our way to harmonious action.

I desire to call your attention to the business agencies, state and local, established by our executive committee since our last meeting, and would urge that our members transact their business through those agencies as far as possible.

Those in charge of this, the business department of the Order, notwithstanding the obstacles they had to contend against, have secured large reduction in the price of several of the leading farm and domestic implements, making it a great saving to all who will purchase through our agents. While we make no war against middlemen who handle our products, yet we think it advisable to dispense with their services as far as possible and deal through our agencies direct with manufacturers and wholesale dealers. And in order to secure these benefits at as early a day as possible, I would recommend the formation of county councils, as soon as the requisite number of Sub. Granges are established in a county, and a local agent selected by the council take charge of the commercial interests of the members of our Order in the several counties.

Agencies are being established in all the principal cities of the west, through which our products can be sold and supplies purchased at a very moderate expense. I hope our Subordinate Granges will take hold of this untold and make our agencies a success.

I would recommend that article No. 25 of our Constitution be so amended as to prevent Subordinate Granges from receiving a petition for the degrees in our Order, from a person outside of their jurisdiction without permission of the Grange having jurisdiction. I am convinced that this rule should be strictly adhered to by our Subordinate Granges. Considerable dissatisfaction already prevails on account of our by-laws. I would therefore recommend this and other sections of our organic law, that are to some extent ambiguous, be so revised as to be more clearly understood by the masses. I would most respectfully call your attention to the third article of our constitution, which sets forth in whom the legislative powers of this Grange shall be vested.

At our last annual meeting it was patent to all that our body was too large for any practical purpose, and thus it was that the article under consideration was incorporated. But owing to the unprecedented growth of our Order, I seriously apprehend that under this article our numbers will not be too great, and that it will be apparent to all, that such an assemblage is very expensive, and too large for the careful consideration and rapid transaction of business.

I would, therefore, suggest that this article of our Constitution be so revised as to make the basis of representation larger, and thereby avoid these troubles in the future.

It is fast becoming apparent to all, that the opposition without our gates will be impotent to distract or disorganize us. This now can only be affected by our own internal dissensions, and to avoid the introduction of any question that might either directly or indirectly

tend to bring about this unhappy result, should be the duty of every good Patron. Uniformity in our ritualistic work, as well as a strict conformity to our constitution and by-laws, is essentially necessary to our harmony and prosperity. I would, therefore, most respectfully urge it upon those who are entrusted with the responsible duties of organizing and governing our Subordinate Granges, to become thoroughly acquainted with the standard work and rulings of our Order.

Now, that we are beginning to get a clear view of the responsibilities and burdens that are inseparable from the producing interests of the country, that under the sweat of his brow, as it enriches the furrow and the harvest fields, springs all the wealth, and from that wealth is gathered all the luxuries as well as the colossal fortunes that are being created all over the land; that it pays for everything, including every dollar that is squandered, as well as every cent that is stolen, and that from this inexorable law of political economy there is no escape, we can have no hesitancy in claiming the fact that the interests of the farmers in this connection demand, that upon the simple but suggestive trio of agriculture, commerce and manufactures, the future prosperity of the country depends. Placing agriculture as our farmer statesman did in the highest niche, warning his countrymen that as that pursuit was the nursing mother of all arts, from which the riches of the earth would be drawn; it would of course be the subject of spoliation from all other sources, and that in consequence of its diversified interests and disconnected situation, and like the great citadel of our liberties, it should be carefully and continually watched, otherwise we would become a nation of plundered plowmen and beggared yeomen.

Let me urge it upon you with the most solemn earnestness to be patient, be circumspect, be firm, be just, so that we may place our Order on an enduring basis.

The future progress, prosperity and usefulness of our order in Kansas, depends to a great extent upon our action at this session. The responsibilities resting upon us are immense. We are being strictly scrutinized from without and within—our foes to make capital for themselves—our friends hoping and expecting much for the good of the Order. To this end, then, let us cultivate every virtue, improve every means of diffusing knowledge, interest and harmony among ourselves. And, brethren, that we may be benefited socially and pecuniarily, avoid every source of bickering and continue with an untiring diligence to guard well the affairs of our noble order.

It affords me much pleasure to be able to say, that since I have held the position of Master of your state, I have met with the most cordial co-operation of the officers and members, thereby lightening my work, which otherwise would have been truly enormous.

I am fully aware that the honor was unmerited, that the duty imposed could have been much more faithfully discharged by others among you, but it was thought proper to entrust for a while the affairs of the Patrons of this State to my hands, and since it has been my lot to act as Master, I have discharged the duties to the best of my ability. If I have erred then in the performance of any duty, attribute it, if you please, not to an unwillingness to abide by the constitution and by-laws of the order, not to an error of the heart, but to the head. And now in conclusion, Brethren and Sisters, may we not hopefully look to the future in the expectation of seeing the Patrons of Husbandry intelligent, prosperous and happy; so that this grand movement, which has its basis in the affections and understandings of the men of the furrow and the harvest field, be cherished, and in the language of Webster, when laying the corner stone of Bunker Hill Monument, "Let it rise, let it rise, let it meet the sun in its coming; let the earliest light of morning gild it, and the parting day linger and play on its summit."

For the Kansas Farmer.

SOVEREIGNS OF INDUSTRY.

This Order, the first primary council of which was formed in this city on the evening of the 25th of February last, has for its object the union of the working classes of every trade, and occupation, who in any way contribute to the substantial wealth of the state.

It has the endorsement of Worthy Lecturer, T. A. Thompson; Worthy steward, A. J. Vaughn; and Worthy Gate Keeper, O. Dinwiddle, of the National Grange, and also of a large number of the most respected members of that worthy body.

It is regarded with great favor by officers and members of the STATE GRANGE and PATRONS OF HUSBANDRY generally, and with this organization it will work as the left arm does with the right, a healthy system and a sound constitution.

It is claimed that "the Sovereigns will open a market and an outlet for the products of the Patrons by the establishment of cooperative stores and depots of receipt and distribution where every thing may be had, from a needle to a steam engine, and by this means secure a more just and equitable distribution of the wealth which the members of the respective orders mutually produce.

The Council organized here was christened Topeka Council No. 1 of the State of Kansas, and the temporary officers elected are: Master, J. A. Polley; Overseer, J. Armstrong; Secretary, Nannie C. Polley; Treasurer, Sarah J. Duston; Lecturer, Sam. Dolman; Steward G. W. Spencer; Stewardess Rose A. Higbee; I. G. Tom. Welsh; O. G. Jas. Duston.

Gen. H. Cameron has charge of the work in the state south of the Kansas River, and will give it his undivided attention.

The Friendship of Men.

I KNOW nothing which life has to offer so satisfying as the profound good understanding which can subsist, after much exchange of good offices, between two virtuous men, each of whom is sure of himself and of his friend. It is a happiness which postpones all other gratifications and makes politics and commerce and churches cheap. For, when men shall meet as they ought, each a benefactor, a shower of stars, clothed with thoughts, with deeds, with accomplishments, it would be the festival of nature which all things announce.—R. W. Emerson.

Copies of the Day.

For the Kansas Farmer.

RETRENCHMENT AND ECONOMY.

BY L. A. STONE.

Sending to your subscribers a weekly supplement containing the doings of the state legislature, Mr. Editor, indicates two things on your part. First, that your desire that those who take the FARMER shall be benefitted thereby; second, that the farmers of the state shall know what their legislators are doing. For them your subscribers should be greatly thankful.

Information in respect to what our law makers are doing is what we all want; for watching their proceedings is the surest way to prevent their prescribing by law that which is wrong. People ought to learn that choosing public officers and representatives is not their whole duty. These need the watchful eye of the people to keep them in the way of right doing. "Eternal vigilance is the price of liberty."

Economy in expenditure and consequently in taxation, will be when the people demand it, and watch over their officers and those in trust to see that it is made a principle of their action. Give a man power and call him to no account for his course, and he soon will come to act chiefly for his own benefit. "Salary grab" legislation is quite possible while finance committees look over the country, to see what branch of industry can bear a little heavier taxation for meeting the expense of government.

Taxation is grinding industry to the dust. Look over our state. See into each county treasury from \$10,000 to \$200,000 poured annually by the people, and this is not sufficient to meet the governmental demand. Expenses outgo income and county bonds are sold in the market at 75 cents on the dollar. Our governmental machinery needs an immense deal of greenback lubrication to keep it in running order. I do not wish to say much about "fat salaries," "exorbitant fees," or high percentages; but when I see a man spend one or two terms in office and become able when he retires therefrom to buy one or two of the best farms in the country, or settle down with a fair competence for life, I really think office is worth all the expense, scrambling, and political chicanery that men use to obtain it. Holding from five to one hundred thousand dollars of the people's money in trust for six or ten months is no mean privilege, though the law may prescribe that it may not be used to the holder's advantage or profit. Especially is this so if the one to whose charge it is committed forgets that it is the people's money, and fails to return it when it is called for, and his bondsman prove insolvent as is sometimes the case. In this is another strong argument for the semiannual collection of taxes, that the people may not commit the keeping of such an amount of money for so long a time to every county officer. It is an old saying that men have their price, and when it is met they can be bought. A man that would return five dollars lent him, in the prescribed time, honestly, might think it to his advantage with seventy-five thousand to make him a new home in California or elsewhere.

For the Kansas Farmer.

BLUEMONT FARMERS' CLUB.

Club met Tuesday evening, Feb. 10th, the president, M. J. Winne in the chair.

The question of the previous meeting "The best method of feeding and taking care of stock," was again taken up.

Himes, had fed work horses a chopped feed of hay and corn meal, wet up together, with good results.

Dr. Detmers, would, in winter feed both oats and corn in alternation, to working animals. Preferred to feed the grain whole, as in its mastication it will be the more thoroughly prepared for the stomach of the animal, thereby keeping in a healthy tone.

In the case of cows for dairy purposes, where the greatest possible flow of rich milk is wanted, the food had better be ground or cooked, as a gain of twenty-five per cent. will thereby be had.

To have animals always healthy and vigorous, there must be a variety of food given them. Green food and vegetables if possible, also salt in small quantities often, in place of an overdose once a week or less often. This over salting at long intervals, causes the animal to drink so much cold water as to often injure the health if not to endanger the life.

Winne deprecated the idea of withholding grain from stock when they need it, because it will bring a good price, and over feed them at other times, because it can not be sold for much. A frugal farmer would try to save all the more when the price is low. Asked if driving soon after feeding does not have a tendency to give horse the colic.

Detmers, in the art of digestion the blood is drawn from the extremities to aid in this work. The violent exercise of certain muscles of the legs, for instance, draws the blood from the stomach and thus stop, or, at least, greatly retard digestion. In traveling, would be very careful about changing the animal's food, especially from oats to corn. Would always let the beast cool off before feeding, and would give it proper time to have its digestion before starting.

Was asked, whether the feeding of corn or oats to colts, would make the more muscular horse?

Thought corn made fat, oats and barley muscle. Did not consider bran worth much for any other than a sick animal.

In Germany, a substantial and well to do farmer, usually kept a span of heavy geldings as roadsters, and a pair of brood mares for raising colts and general farm work. Here where there was not much mud, a light span might take the place of the heavy geldings.

Campbell, was feeding a cow for milking purposes, had tried corn meal in its raw state, with bad results, as she failed to assimilate it, had then cooked or scalded it, before feeding, and now had a fine flow of milk.

Marlatt, had been accustomed to wean the calves and suffer most of his cows to run dry soon after frost in the fall. One or more of the herd was usually selected out and fed a warm bran mash night and morning, in addition to the usual feed of hay and rubbins, and these gave a plentiful supply of milk and butter for family use through the winter, as well as at other times. Had selected this winter, one of his most indifferent looking animals having her first calf, because of her gentle and kindly disposition. At first she gave but a pint of milk per day, but soon increased to a gallon, and that too with an extra cost in feeding of no more than twenty-five cents per week. Three or four others of like age and more promising as milkers, might just as well been fed in like manner, with but little additional labor, and been made to afford a profit of as many dollars per week, to say nothing of the advantages to the cows themselves, in extra growth, in flesh and dairy qualities by the extra care and feeding. In thus choosing from the general herd, for dairy purposes in winter, care should be taken to select such as have a tendency to increase their flow of milk when fed, rather than to dry up, and take on fat.

W. MARLATT, Cor. Sec.

LAW versus DOGS.

BY NOAH CAMERON.

"A live dog is better than a dead lion," and many dogs have got more sense than law makers. In the legislature of the state of New York, some men, lacking good dog sense, opposed a bill to tax all dogs three dollars per head. The sheep in convention assembled, had sent up a petition to that effect, and this tax on dogs was to make wool growing profitable. Sheep and dogs "are natural enemies" we are told, and if the sheep don't bite the dog, the dog is pretty sure to bite the sheep. Kansas is a great sheep country, yes, that is so; nearly all that have been brought here, their bones are bleaching upon its arid plains; but wool will not grow on dead sheep, and to make Kansas a wool country something else must be done. Well it is proposed to grow it by law; law in these days of communism is the all potent power to move every thing, (backed by capital) but the queerest thing of all is that we have not yet arrived at that common sense standard of intelligence to know that an industry that can not thrive without being borne up and carried along as a burden upon other industries might better not live at all. Now a tax on dogs *per capita* would be in effect the same as to tax men per head so much to go as a bounty to wool growers. A tax of this kind would not only be unreasonable, but it would be unjust and unconstitutional. When you step outside of the regular mode of levying taxes, as to valuation, and tax any dog that is worth five dollars three, being 20 or 30 per cent higher than you tax any other property, you set up a very dangerous principle in taxation. We might as well tax a railroad engine that kills stock occasionally one half or two thirds its value, to encourage cattle growing, but some men to reach supposed results advocate measures without reason or common sense, and without regard for justice or constitutional law and the fact would be that nothing would be reached by any such enactment; but would only burden our statute books and show a vandalism in law making that would be no credit to any people.

Letter from Burlington.

BURLINGTON, KAN., FEB 14, 1874.

EDITOR FARMER:—In compliance with yours of Feb. 12, I have the honor to report the following grange organized by me: Indian Hill Grange No 720, John T. Lawrence; Master, P. C. Hiseager; Sec. Valley grange No 736, J. A. Kenedy; Master J. M. Kite; Secretary, Union grange No, 807 John F. Jones Master, J. Manley; Secretary, Wolf Creek grange, A. W. Jones Master, Mrs. E. A. Page; Secretary.

Accept thanks for the KANSAS FARMER you sent me. We are getting up a club for the FARMER; expect to have a club of 25 and more soon. There are 13 Subordinate Granges in good working order in Coffey county, and others will be organized soon. We expect to be thoroughly organized in this county during the coming summer.

P. BRANDON, Dep. for Coffey Co.

Letter from Iola.

IOLA, KAN., February 20, 1874.

EDITOR FARMER:—Can any of the readers of the FARMER tell me the cure for fits or convulsions in sheep? I have several sheep that have had one or more fits and are now apparently well. I have lost two while in convulsions. My sheep are fed all the prairie hay they will eat and one pint each per day of a mixture half and half oats and wheat, regularly watered and the north side of their yard well shaded.

A. G. J.

The Kansas Farmer.

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

TERMS: CASH IN ADVANCE.

One Copy, Weekly, for one year, \$2.00
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 One Year, 10 cents per line, nonpareil, each insertion.
 Special Notices, 25 cents per line. No advertisement taken for less than one dollar.

SPECIAL RATES FOR LARGE CONTRACTS.

In the Breeder's, Nurserymen's and Seedmen's Directories we will print a card of three lines for one year, for \$5. This will give a circulation to the card of nearly 200,000 copies during the year, the best offer ever made by a first-class weekly paper.

OUR CONTRIBUTORS.

DR. JOHN A. WARDER, Ohio.
 GEO. T. ANTHONY, Leavenworth, Kan.
 DR. CHARLES REYNOLDS, Fort Riley, Kan.
 S. T. KELSEY, Pomona, Kan.
 MRS. CORA M. DOWNS, Wyandotte, Kan.
 J. H. BERRY, Wyandotte County.
 MRS. M. S. BERRY, Shawnee County.
 MRS. SOULARD.
 "RAMBLER."
 "BETTY BADGER," Freeport, Pa.
 DR. A. O. CHASE, Leavenworth.
 JOHN DAVIS, Davis county.
 JUDGE JAMES HANWAY, Lane, Kan.
 P. J. LOWE, Leavenworth.
 R. S. BELL, Kirkwood, Mo.
 W. MARIATT, Manhattan, Kan.
 NOAH CAMERON, Lawrence, Kan.
 C. W. JOHNSON, Haverhill, Kan.
 "OLD CENTRE," "COUNTRY LAD," "HOOSIER GIRL," W. P. POPENOE, ALFRED GRAY, PROF. SNOW, PROF. KEDZIE, PROF. MUDGE, and host of other valuable contributors, who will assist in giving the farmers of Kansas a paper not equalled in the country for originality and merit.

A special and interesting department of the paper will be the short letters from farmers and breeders, fruit-growers and others interested in the various branches of agriculture. The live discussions upon the topics of the day, embracing full and complete information upon every phase of the farmers' movement, will also be a prominent feature of the paper. Specimen copies will be sent free to any address.

THE TEMPERANCE MOVEMENT.

The great temperance movement is steadily increasing in power and importance and will probably with more or less force reach every state. The women of the land whose long suffering from the wrongs and burdens which the liquor traffic entails upon them, is only equalled by their patience and forbearance, have at last asserted their convictions upon the subject of selling whiskey. We do not for a moment countenance or uphold a mob law, but we shall always sustain and encourage every kind of honorable warfare against manufacturing and selling liquor. No city, county, state, or nation will ever uphold a stringent temperance law until public sentiment sustains it. Kansas, today, has a better temperance law than the sentiment of her citizens will sustain. If this tidal wave shall make a more healthy sentiment, make the manufacturing and sale of whiskey a positive social disgrace, it will make more stringent laws possible, and accomplish great benefit for our state. We say to the good women of Kansas, if you can do good in this movement without the aid of mob law, we wish you God speed.

THIS WEEK'S PAPER.

The address of Prof. S. T. Kelsey, "Forest Trees for Kansas Prairies," is the result of many years practical experience and close observation, and is well worth preserving by every farmer. In our Agricultural Department will be found our young friend Popehoe's "New Enemy to the Sweet Potatoes," and important and valuable tables. Mrs. Tupper so widely known as a practical and skillful Apianian, now publishing *American Bee Journal*, contributes an article on wintering bees. Mr. Popehoe continues his Chats with Patrons. The address of Master M. E. Hudson before the State Grange at the late session in Topeka, will be found well worth a careful reading. A short description of the Patrons of Industry. Under "Topics of the Day" will be found a variety of papers. Editorial notes, Scientific and News Columns, New Laws, etc., will be found worth looking over. "In the Domestic and Literary Departments" will be found contributions from several of our correspondents, making in all a number equal to any issued. For our next number we have many good things in store for our readers, and shall strive by the help of all the members of our big family to give an entertaining and useful paper.

BLANKS FOR GRANGES.

We shall publish by the 10th of the present month, a new and uniform system of Blanks and Cards, including every kind now in use in Granges, and gotten up with more system, economy and typographical beauty than anything yet presented to the Granges of Kansas.

Our idea has been to systematize, simplify and cheapen in cost those forms which are necessary in doing business of the Granges. Price Lists will be forwarded to all Granges in the State. Do not order your Blanks until you have examined the new KANSAS FARMER styles and the low prices asked for them.

THE PATRON'S HAND-BOOK.

A Valuable Work.

Which should be in the hands of every Patron who wishes to be well informed. The KANSAS FARMER compilation will be the most complete and valuable book of the kind yet issued in the country. It will contain a short history of the Patrons of Husbandry.

Constitution and By-Laws of the National Grange, and Recommended Amendments made at the last session of the National Grange at St. Louis.

Declaration of Purpose of the National Grange.

Also, Constitution and By-Laws of the Kansas State Grange, as amended at the session of 1874, at Topeka:

Also, Recommended Constitution and Rules of Order of District and County Granges:

Also, Recommended Form of Constitution and By-Laws of Subordinate Granges:

Also, Manual of Practice, as revised by the Executive Committee of the State Grange; Decisions of the Master.

Explicit and full directions to those organizing Granges, and a Directory of the National Grange, Kansas State Grange, and the County Granges.

This will be the most comprehensive work of the kind in the country, and will be of great value not only to every official of the Grange, but also to the entire membership.

This work will be sold from the office at \$30 per hundred, \$3 per dozen, or 25 cents each, and will be ready to forward to Granges sending their orders by March 10. Send in your orders at once, address them to.

J. K. HUDSON,

Editor and Proprietor Kansas Farmer.

BERKSHIRE PIGS AT AUCTION.

Attention is called to the advertisement in this paper of a herd of pure-bred Berkshire pigs. As there has been but one breed of pigs kept on the farm where this herd has been the past three years, and great care been used to prevent the stock from mixing or degenerating, the sale will no doubt present inducements to buyers not often found in the west. The sale will take place March 12, 1874, at 10 A. M., at the Stock Yards, at West Kansas City.

HEDGE PLANTS.

Among our advertisements will be found that of Mr. Luther Palmer, of Topeka, whose stock of Plants and Trees are offered at the lowest rates.

NO SUPPLEMENT THIS WEEK.

We shall give next week a supplement containing the full Legislative proceedings not included in our last week's issue. Our readers may rest assured that they shall get the full reports. As the Legislature will adjourn within two or three days, we deemed it advisable to give the entire report in one supplement, saving the very considerable expense of issuing two supplements.

A correspondent asks where he can get the genuine Jerusalem artichoke. Who has them for sale? The FARMER is the medium in which to advertise all kinds of stock, farm, seed and nursery stock for sale. See terms.

HONOR TO WHOM HONOR IS DUE.

THE FIRST DEFENSE OF THE GRANGES IN CONGRESS.

We are glad to be able to note that the first open and avowed espousal of the great western farmers movement came from a Kansas congressman. On the 26th of February Hon. Stephen A. Cobb, of Kansas, in a bold and manly speech, not only declared the principles and objects of the grangers of the west in accordance with justice and right, but also foreshadowing political reforms which as yet are not popular among those who have the control of public affairs.

The report of this speech comes to us as we go to press, and we have not room for extracts from it, as we wish we had. We shall give a portion of this speech next week.

EXPENSES OF DELEGATES ATTENDING STATE GRANGE, ETC. ETC.

We intended last week to speak of an injustice done the extreme western members who attended the State Grange which we hoped to see righted before the Grange adjourned. Many of these delegates who came a long distance, especially those without railroad communication were compelled to come at a considerable sacrifice, not only of their time, but also of their money. This ought to have been corrected, and some rule adopted by which the actual expenses of delegates attending the State Grange should be borne and the dele-

gate not subjected to loss. This and other subjects will be fully discussed in the future by the Farmer. We believe that a full consideration of important measures likely to arise at the meeting of the State Grange should be given in the Subordinate Granges. Upon the whole subject of representation and eligibility to office, we have some ideas to present in the future. As a high private in the army of Patrons, we shall claim the privilege of rising to explain whenever "the spirit moves" us so to do, and we ask the live earnest members of the Order to do likewise. The columns of the FARMER are open to a broad and liberal discussion of all questions of interest pertaining to farmers and farming, mechanics and laborers. We have no narrow rule demanding that contributors shall write in accordance with the opinions of the editor. The FARMER is a bigger institution than that.

Correspondence.

HILL SPRING, MORRIS CO., KANSAS.

February 8, 1874.

EDITOR FARMER:—I have intended to write to you every mail to congratulate you on, and to thank you for your "new departure," as it is just what we farmers want. The monthly was first-rate, but we get hungry for reading, for something to cheer us, for something to chide us to our duty and something to give us new ideas and plans before the month comes around. You have exactly filled this want so long felt, with your noble weekly; our hearty wish is that you may be able to continue it.

We have had a very mild winter thus far, although we have about a foot of snow now; still it is not cold.

Stock is going through the winter very well. Many are very short of feed, having lost it by the fearful prairie fires last fall, and to such the mild weather is a great blessing.

The prospect for fruit next season is very good now; the dry weather of last fall gave the new wood a good chance to ripen, and the buds are all alive to date. We have a fine peach orchard, the best in the country and we hereby extend a hearty invitation to you and any other lover of choice fruit to call and taste it this season.

I would like to say just here to those contemplating setting small fruit, that we have tried several kinds of blackberries and find the best to be the Kittatinny, it is a strong, upright grower a generous bearer of the sweetest finest berries, will not winter-kill;—the main point, while the Lawton is a poor grower, a shy bearer of small sour berries. therefore, for Kansas farmers I recommend the Kittatinny and urge them to plant a good large patch, as nothing is so comforting after a hard day's work as a generous dish of berries and cream. Who more deserves nature's blessings than the noble tiller of the soil.

The farmers are nearly all grangers and the rest will be as soon as they can raise the necessary funds. I am fully convinced the order will work to the ultimate good of the producers. We are already reaping the fruits in reduced prices. Our merchants have discovered that they can sell goods for less than 30, 50 and 100 per cent. profit, and have grown suddenly willing to pay us something near St. Louis prices for our produce. So I say let the granges keep on in the good work, be very careful not to overdo any good thing so as to create a reaction. Let me urge on all farmers Paul's injunction "owe no man anything."

I tell you that has been the rock on which so many of us have broken—debt. We have been urged by merchants and others to buy all we wanted, and at high, very high prices, with one per cent. a month interest, compounded every month, to be paid for at harvest time when our corn was gathered, our hogs killed, at their prices for these various articles. Of course this does not pay, for after paying our high rates of taxes there is not half enough left to pay store bills; therefore, I say let us do without tea, coffee, sugar, tobacco and every unnecessary luxury, until harvest is all gathered in, then our corn, hogs, wheat, etc., will be ours, for we owe nothing. Then we can sell for cash to the highest bidder, take the money, buy our year's supply of groceries at wholesale rates and be happy. Again I say, don't run in debt.

Now, about taxes. I am glad to see so much in your paper on the subject. I like the semi-annual plan very much and would urge our legislature to pass such an act before they adjourn, if they want to grace the hall again. We, the people of Kansas, want to stop voting bonds for every thing that turns up. It is appalling to think of the amount of bonds we have got to pay now, and still they want more. It is very easy to vote them, but the raising the tax money by January 10, is another thing. We voted down a proposition January 28, to reissue \$30,000 of Morris county bonds, a part of the proceeds of the sale of \$165,000 stock in the M. K. and T. railroad to aid the Council Grove Coal Company, to complete their shaft which is down 315 feet.

While we want coal developed in Morris county, and we have no doubt it soon will be, by the present company, or some other, as there is no doubt but that we have plenty of coal and of good quality we do not think it just or politic to our, the people's credit, to further private enterprise; therefore, the bonds were defeated and the people of the

county saved the tax necessary to pay the bonds and interest.

It is bad enough to vote bonds for truly public uses, as school houses, court houses, bridges etc., and we ought to consider well before voting these.

I fear we have a mania for large fine school houses in very thinly settled districts, because forsooth, there is railroad land in the district. Remember these bonds must be paid, and your homesteads will be taxable before the bonds expire, and you will find out it is hard to raise tax money. Do not understand me as saying a word against education, far be it from me. I only say, build your school houses according to your needs, vote bonds slowly and keep out of debt.

Yours truly, L. M. HILL.

FARLAND, KAN. Feb. 24th, 1874.

EDITOR FARMER: Although not a subscriber for the FARMER, I am a reader, and am much interested in it; and I think we will soon get up a club for your paper, as we have a Farmers Union organized here, and of course need it. We are also trying to organize a Grange, but meet with opposition from sources we would scarcely expect; for in the simplicity of my nature, I believe in all sincerity, that the object of Patrons of Husbandry, was not pecuniary advantage solely, or personal aggrandizement and high position, but an outburst of honest patriotism, and christian philanthropy, in earnest zeal to remove the poverty, degradation and ignorance, which are in reality and in truth, the sole cause of the vice, crime and misery which exist in our land.

Now it seems to me, that one of the most important principles to establish in the character of individuals is truth and sincerity; one established in that principles, will be a good citizen, and a good neighbor; and if intelligent, a safe friend and wise counsellor. I think it is Moshem who informs us that some of the early christian fathers thought it justifiable to lie to promote the interests of the church. Now I most sincerely hope that it may not be thought necessary in either Grange, Club, or other social organization for the improvement of our race, to advance their interests by so mean and despicable an act. I think I know what I am saying, when I say, that lying (with some at least), is almost as common as breathing. I believe that Dr. Wm. Paley, in his philosophy of religion, allows lawyers some latitude in that respect; can't lie, that we are all lawyers?

Now I am one of those who fully believe, that the time will surely come, when ignorance, and as a consequence, all its concomitant evils should cease to exist; virtue, purity, peace and good will reign in its stead, and that all mankind will blend in one universal brotherhood and sisterhood; and while Unions and Granges are laboring so earnestly for so glorious an era, woman must and will act a most conspicuous part.

Wm. B. GREER.

PAVILION, KAN., Feb. 12th, 1874.

EDITOR FARMER: I herewith send you a few notes from this part of Wabunsee county.

Winter-wheat though not killed, is to say the least, badly injured, but the heavy coating of snow which we have had of late, is thought to be beneficial.

As evidence of improvement in finance, I notice an inquiry for a disposition to pay cash for steers.

There is considerable old corn in this vicinity and some new for sale, but with an unwillingness to feed out at present prices.

Stock generally doing well; work horses looking better than usual.

Not quite as many hogs are being wintered as usual, but a better quality is sought after.

Some inquiry for sheep; but if we are to have more sheep, we must have less dogs. It is a shameful fact, that Wabunsee county has about as many dogs as sheep, and this state of affairs is likely to continue until our legislature enacts some law, at least, giving sheep an equal chance with dogs. As it now stands, our laws discriminate in favor of dogs and against sheep, for sheep are taxed like other property, while dogs go free. If this is not class legislation, it certainly belongs to a class of legislation coeval with the dark ages.

Fruit prospects good. Seedling peaches not injured, budded more or less injured, according to kinds. Crawford's late and early, are two third killed; some others nearly as bad. Hale's early, all right.

Granges are being organized all over the county; the Masters met last week at Alma, and elected delegates to attend the State Grange at Topeka.

Lyceums throughout the county are discussing the Grange question in all its bearings.

H. A. STILES.

WASHINGTON, WASHINGTON CO., KAN.

February 2, 1874.

EDITOR FARMER:—I have taken the FARMER for the last four years, first it came to me monthly, then semi-monthly, and best of all changes it now comes with a new dress, and in the shape of a weekly, which I am proud of, it being filled with so much practical reading. The information I received from it four years ago is worth the whole amount I have paid for the whole time. It has published facts in regard to apple tree borers I did not know about until I had read the FARMER. By this, you will see I saved my fruit trees. You have friends working for the FARMER.

Our Worthy Deputy, A. J. Palmer, organized on January 23, Riddle Creek Grange, 28 members. Henry Aukerman, Master; Wm. Hoffkins, Secretary.

On the 24th, Mill Creek Grange, 30 members, Wm. Wooding, Master; W. H. Johnson, Secretary.

On the 26th, Maple Wood Grange, 10 members; E. K. Wolverton, Master; R. B. Briggs, Secretary.

On the 27th, Liberty Grange, 30 members; P. K. Brown, Master; J. A. Palmer, Secretary.

We are wide awake in the Grange in this part of the state.

I wish you success in your undertaking.

Yours fraternally, L. P. DEWEY.

EDITOR FARMER:—I have the planting of an orchard in consideration and would like a little information through the Farmer. A friend in a previous No. of the Farmer tells us to plant such varieties as are known to succeed in Kansas orchards, and tells us, if we don't know, to learn of some one who does. I am in a new settlement and don't know of a bearing apple tree in the whole neighborhood.

And if I, and many others, can't find out through the Kansas Farmer, or some other paper, what varieties do best in Kansas orchards we will have to depend on our own judgment entirely. There are, I think, farmers in the eastern end of the state who have bearing orchards. If some of them would be so kind and condescending, as to tell us what trees are the hardest and what the best bearers, and which apples the best keepers, from their experience, it would help many new settlers in this state.

I have lived on a farm for 35 years and have planted several orchards, and seen many others planted, but as I am a new settler in Kansas, if I can hear any one saying what varieties succeed best in Kansas orchards, I will sit still and listen with all ears open.

T. M. C. Abilene, Dickinson Co.

EDITOR FARMER:—I am an old settler. I was a subscriber to the FARMER the first year of its publication, when it was not larger than a medical almanac. Have not been a reader of it of late years.

The two numbers sent me have set me up with the FARMER again, and I am now trying to get up a club on your "hard pan" offer. Every one that sees the FARMER wants it, but we are not through paying taxes here, and even \$1.00 is hard to raise. I hope to succeed however, in getting up the club.

I see and hear of so much damage done young orchards by rabbits that I cannot refrain telling you how I save my trees. I mix sulphur with soft soap, one pound of the former to about three pints of the latter, and apply with a cloth or an old paint brush. I have used this remedy for three years in a locality where rabbits are abundant. My plan to secure perfect safety is to go over the trees in the fall and again about the first of February. I am led to believe from actual experience, that this treatment of young trees is worth more than the same expenditure of labor and money in any other way, whatever.

I have reduced in this way the depredations of the "peaky" bore, more than ten fold. This I have proven by applying the mixture to only part of my peach trees and noting the result.

Try it, brother orchardists, try it and see what a remarkably healthy looking bark and vigorous trees you will have. There is no better remedy for lice or other bark insects. I have something more to say—but you like short letters so I will desist for the present.

Yours truly, J. B. HODGINS.
 Oswego, Labette Co., Kansas.

Meteorology.

For the Kansas Farmer.]

MONTHLY WEATHER REPORT.

SIGNAL SERVICE, U. S. ARMY,
 LEAVENWORTH STATION, Mar. 1, 1874.

Showing Daily and Monthly Mean of Barometer and Thermometer, Monthly Velocity of Wind, prevailing Direction of Wind, and Amount of Rainfall for the Month of February, 1874:

DATE.	BAR. AV.	TH. AV.	HUMID.	RAIN.
1 Sunday.....	30.29	22	74	.248
2 Monday.....	30.28	21	76	
3 Tuesday.....	30.29	27	65	
4 Wednesday.....	30.47	22	59	
5 Thursday.....	30.18	27	79	.265
6 Friday.....	30.04	25	75	.098
7 Saturday.....	30.06	28	72	
8 Sunday.....	30.04	29	68	.068
9 Monday.....	30.44	25	67	
10 Tuesday.....	29.95	24	73	
11 Wednesday.....	29.58	27	83	
12 Thursday.....	29.33	30	81	
13 Friday.....	29.03	27	81	
14 Saturday.....	29.83	29	68	
15 Sunday.....	29.66	33	69	
16 Monday.....	30.04	29	65	
17 Tuesday.....	30.06	36	62	
18 Wednesday.....	29.74	36	71	
19 Thursday.....	29.55	34	70	
20 Friday.....	29.88	35	60	.038
21 Saturday.....	30.12	23	80	.288
22 Sunday.....	30.14	10	72	
23 Monday.....	30.68	19	65	.108
24 Tuesday.....	30.51	11	67	
25 Wednesday.....	30.29	18	73	.098
26 Thursday.....	30.21	30	70	
27 Friday.....	30.25	36	65	
28 Saturday.....	30.35	42	63	.148
Monthly Means..	30.11	28.8	72	1.35

* Rain and sleet. † Sleet. ‡ Snow. § Sleet and snow.
 Highest Barometer, 30.33; Lowest Barometer, 29.12;
 Range of Barometer, 1.11 in.
 Highest Thermometer, 51°; Lowest Thermometer, 3°;
 Range of Thermometer, 48°.
 Total Rainfall, 3.14 inches.
 Prevailing wind, South; Average Direction, South;
 Maximum Velocity, 18 miles per hour.
 Total Number of Cloudy Days, 14; Rainy, 6; Fair, 8;
 H. M. WELLS, Observer.

BY AUTHORITY.

[Published Wednesday, March 4, 1874.]

AN ACT

To change and vacate portions of a certain road in Allen county, Kansas.

Be it enacted by the Legislature of the State of Kansas:

SECTION 1. That all that part of a certain county road in the county of Allen in the state of Kansas, (which was ordered to be opened by the board of supervisors of said county, on the 10th day of October, A. D. 1872), on the north line of the southwest quarter of Section thirty-three, in township twenty-five, of range eighteen, be and the same is hereby vacated, and the same shall hereafter be located on the west line of said section thirty-three, to the north line of the city of Humboldt.

Sec. 2. This act shall take effect and be in force from and after its publication in the *Kansas Farmer*.

Approved February 23, 1874.

W. H. SMALLWOOD, Secretary of State of the state of Kansas, do hereby certify that the foregoing is a true and correct copy of the original enrolled bill on file in my office.

In testimony whereof I have hereunto subscribed my name and affixed the great seal of state. Done at Topeka, Kansas, this 3d day of March, A. D. 1874.

W. H. SMALLWOOD, Secretary of State.

[Published Wednesday, March 4, 1874.]

AN ACT

To define the liability of railroad companies in certain cases.

Be it enacted by the Legislature of the State of Kansas:

SECTION 1. Every railroad company organized or doing business in this state shall be liable for all damages done to any property of such company in consequence of any negligence of its agents, or by any mismanagement of its engineers or other employees, to any person sustaining such damage.

Sec. 2. This act shall take effect from its publication in the *Kansas Farmer*.

Approved February 23, 1874.

W. H. SMALLWOOD, Secretary of State of the state of Kansas, do hereby certify that the foregoing is a true and correct copy of the original enrolled bill on file in my office.

In testimony whereof I have hereunto subscribed my name and affixed the great seal of state. Done at Topeka, Kansas, this 3d day of March, A. D. 1874.

W. H. SMALLWOOD, Secretary of State.

[Published Wednesday, March 4, 1874.]

AN ACT

Relating to killing or wounding stock by railroads.

Be it enacted by the Legislature of the State of Kansas:

SECTION 1. Every railway company or corporation in this state shall be liable for all damages done to any property of such company in consequence of any negligence of its agents, or by any mismanagement of its engineers or other employees, to any person sustaining such damage.

Sec. 2. This act shall take effect from its publication in the *Kansas Farmer*.

Approved February 23, 1874.

W. H. SMALLWOOD, Secretary of State of the state of Kansas, do hereby certify that the foregoing is a true and correct copy of the original enrolled bill on file in my office.

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W. H. SMALLWOOD, Secretary of State.

[Published Wednesday, March 4, 1874.]

AN ACT

Making appropriations for the State Board of Agriculture, for the deficiencies up to November 30, 1873, and the current expenses of the fiscal year ending November 30, 1874.

Be it enacted by the Legislature of the State of Kansas:

SECTION 1. That the following sums are hereby appropriated for the purposes herein after named, out of any money in the treasury, not otherwise appropriated, for the fiscal year ending November 30, 1874: Salary of the secretary, one thousand five hundred dollars (\$1,500); clerk hire, one thousand dollars (\$1,000); postage and expressage, three hundred and fifty dollars (\$350); expense of members in attending meetings of the board, five hundred dollars (\$500); taxidermy and botanical collections for the cabinets in the agricultural department, one hundred dollars (\$100); outstanding indebtedness due for the year 1873, and 1872, six thousand five hundred and eighty-five dollars and forty-two cents (\$6,585.42); to be disbursed by the treasurer of the board, who shall make an itemized account of the same, and shall file the same with the auditor of state. No portion of this appropriation shall be used other than for the purposes herein named: Provided, That any sum or sums now in the treasury, and hereafter collected, shall be paid into the treasury of the state by the treasurer of said board. Printing and binding three thousand five hundred dollars (\$3,500); printing and publishing fifteen hundred dollars (\$1,500); statistical blanks, rolls and miscellaneous printing, twelve hundred dollars (\$1,200).

Sec. 2. The auditor of state is hereby authorized to issue warrants upon the treasurer of the state for the purpose and amounts specified in this act, or so much thereof as may be necessary to liquidate all such accounts as may be presented to him: Provided, That no account shall be audited or allowed except salaries of officers fixed by law, unless an itemized account is furnished, verified by affidavits, showing that the funds appropriated were applied to the specific purposes only for which they were appropriated.

Sec. 3. That in all cases in which the provisions of this act, or any part thereof, are violated by any person named or caused named, the officers and persons having charge of such appropriations shall in no case, by any contract, act or proceeding, obligate the state of Kansas, at any time, to pay a larger sum than herein specifically appropriated.

Sec. 4. This act shall take effect and be in force from and after its publication in the *Kansas Farmer*.

Approved March 4, 1874.

W. H. SMALLWOOD, Secretary of State of the state of Kansas, do hereby certify that the foregoing is a true and correct copy of the original enrolled bill on file in my office.

In testimony whereof I have hereunto subscribed my name and affixed the great seal of state. Done at Topeka, Kansas, this 4th day of March, A. D. 1874.

W. H. SMALLWOOD, Secretary of State.

[Published Wednesday, March 4, 1874.]

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Sec. 4. This act shall take effect and be in force from and after its publication in the *Kansas Farmer*.

Approved March 4, 1874.

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Sec. 4. This act shall take effect and be in force from and after its publication in the *Kansas Farmer*.

Approved March 4, 1874.

W. H. SMALLWOOD, Secretary of State of the state of Kansas, do hereby certify that the foregoing is a true and correct copy of the original enrolled bill on file in my office.

In testimony whereof I have hereunto subscribed my name and affixed the great seal of state. Done at Topeka, Kansas, this 4th day of March, A. D. 1874.

W. H. SMALLWOOD, Secretary of State.

[Published Wednesday, March 4, 1874.]

AN ACT

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Sec. 4. This act shall take effect and be in force from and after its publication in the *Kansas Farmer*.

Approved March 4, 1874.

W. H. SMALLWOOD, Secretary of State of the state of Kansas, do hereby certify that the foregoing is a true and correct copy of the original enrolled bill on file in my office.

In testimony whereof I have hereunto subscribed my name and affixed the great seal of state. Done at Topeka, Kansas, this 4th day of March, A. D. 1874.

W. H. SMALLWOOD, Secretary of State.

Scientific Miscellany.

The Popular Science Monthly, in an excellent obituary of Agassiz, has the following on his views of the all-absorbing modern doctrine of evolution:

Scientific inquiry will be prejudiced by favoring the idea that the results of investigation may be irreligious, and Christianity will be injured by identifying it with physical doctrines and interpretations of nature, which it is the business of science to investigate, and which investigation is liable to change. He who insists upon linking religion to any view of natural phenomena, puts it in grave peril. The attempt, long ago made, to identify it with the belief in the flatness and fixedness of the earth, was a serious error; and the subsequent attempt to identify it with the doctrine of the recent creation of the earth, was another mischievous mistake. To try the experiment a third time, in the domain of biology, cannot fail to be still more injurious. It is believed, by great numbers of the most intelligent students of the subject, that the old opinions regarding the origin of living things upon the earth, are certainly doomed to pass away. It is well also to bear in mind that, if Agassiz fights Darwinism, he accepts Evolution. Forty years ago he wrote, of the life upon the globe, "An invisible thread in all ages runs through its immense diversity, exhibiting as a general result the fact that there is a constant progress and development ending in man," and, in his very last article, to the question, "Is there any such process as evolution in nature?" he answers, "Unquestionably, yes." He was of opinion that little as yet has been contributed toward the scientific solution of this great problem; but, however that may be, evolution in nature he conceded as a fact which belongs to the future of science. If, therefore, Agassiz was a Christian, belief in evolution is not inconsistent with Christianity. This is the ground now taken by eminent biologists, who, like Dr. McCosh, maintain that Christianity has no interest in holding by the question one way or the other.

Cure for Chills.

These painful pests can be entirely removed, according to a writer in the *Apotheker Zeitung*, by making use of an aqueous solution of iodine and tannin. About an ounce of tannin is dissolved in half a pint of water; seventy-four grains of iodine are dissolved in an ounce and three-fourths of spirits of wine; the two solutions are then mixed, and enough water is added to make up the whole to two and a half pints. The remedy is applied once daily, the best time being before going to bed. The mixture is gently warmed over a very slow fire; the affected part (as the hand) is dipped in it while still cold, and held there until the liquid, on being stirred, feels uncomfortably hot. The vessel is then removed from the fire, and the hand is dried over it, without gloves. The vessel used must be of earthenware or porcelain, not of metal. Care should be taken not to use too great a quantity of iodine, especially when abrasions are present. Four or five applications are usually sufficient.

How about Your Food?

A writer in a foreign paper thus takes off American, and more especially, Western cookery. He says: "What singular combinations of edibles they make use of in the United States! Farmers out West are not so long-lived as other classes, although under proper dietetic conditions they ought to be more so, because they persist in using fried dishes several times a day, with several fried articles at each of the three meals. This is one of their common dietetic abominations: dried beef, old cheese and pickles are among the common relishes, while lard and salted meats make their rich dainties infectious and caustic. We have seen on a farmer's table fried pork, fried eggs, fried potatoes and fried griddle cakes for breakfast; fried ham, fried hominy and fried pan-fried for dinner and fried sausage and fried doughnuts for supper—all the frying done in lard. No class is so troubled with cancer, erysipelas, tumors, cancers and humors, as farmers; and the excessive use of pork, lard, fine flour, rich cakes and greasy pastry, is enough to account for it. The essential need of farmers is plain, wholesome food, properly cooked. This would give them much more available power for work, relieve them of many of the distresses and expenses of sickness, add many years to their life and render old age 'green' and normal, instead of dry and decrepit, as in most cases it is under existing habits."

[Published Wednesday March 4, 1874.]

AN ACT

Making an appropriation to pay for the publication of the constitutional amendment in the year 1873.

Be it enacted by the Legislature of the State of Kansas:

SECTION 1. That the sum of seven thousand dollars (\$7,000.00) or so much thereof as may be necessary, be and the same is hereby appropriated out of any money in the Treasury not otherwise appropriated, for the purpose of paying for the publication of the amendment to the constitution submitted to the electors in the year 1873.

Sec. 2. The Auditor of State is hereby authorized to draw his warrants upon the Treasurer of State for the purposes specified in the first section of this act; provided, that no account shall be audited by the Auditor unless an itemized account is furnished to him, verified by the affidavit of the claimant and certified by the Secretary of State as correct, and not in excess of the legal rates of advertising as allowed by law.

Sec. 3. This act shall take effect and be in force from and after its publication in the *Kansas Farmer*.

Approved February 3, 1874.

W. H. SMALLWOOD, Secretary of State of the state of Kansas, do hereby certify that the foregoing is a true and correct copy of the original enrolled bill on file in my office.

In testimony whereof I have hereunto subscribed my name and affixed the great seal of state. Done at Topeka, Kansas, this 3d day of March, A. D. 1874.

W. H. SMALLWOOD, Secretary of State.

RAW VALLEY NURSERY.—The proprietor of this Nursery offers 200,000 No. 1 Apple Root Grafts for sale on terms of one and two years, for 100,000 or more are taken in one lot. Hedge Plants at wholesale or retail. Nursery Stock of all kinds very low. Send for catalogue and price list.

E. R. STONE, Topeka, Kansas.

GRANGE STORE.

196 Kansas Avenue, Topeka, Kansas, keep on hand a large stock of Dry Goods, Fancy Goods, Notions, Carpets Oil Cloths, Mattings, Window Shades and Grangers' Supplies. Specialty orders from any part of the State will receive prompt attention. First door south of the Post Office.

KEITH & BILLINGSLEY.

General News.

Important Decision.

The Attorney General has decided that all forfeited to a State, and taken before the United States tax is paid from the manufacturer by the process of the State Court seeking to enforce the forfeiture, cannot be seized by the United States officers for the non-payment of said tax while it remains in the custody of the State officers. He has also decided that the phrase "State banking association" in section 6 of the act of March 3, 1865, providing for a tax of ten per cent upon State circulation, includes all associations for banking by private agreement of parties as well as an association organized by a special act of the State Legislature.

A SPECIAL despatch to the *Times* from Calcutta says 250,000 persons are distressed from want of food in the districts of Tirhoot and Boglipoor, Presidency of Bengal.

The same despatch says it is estimated that but for the aid furnished by the government 500,000 persons would have perished.

U. S. DISTRICT JUDGE.

The president has appointed C. G. Foster, of Atchison, United States district judge for Kansas, vice Delahay, resigned. There were twelve applicants for the place. Foster was endorsed by Senators Ingalls and Harvey.

MR. INGALLS introduced a bill authorizing the Secretary of the Interior to use for the benefit of the Great and Little Osage Indians in Kansas \$200,000 per annum for four years out of the proceeds of the sale of their lands; also a bill relating to the Central Branch of the Union Pacific railroad. It proposes to give that company the right to grants of land and subsidy bonds for extending its road to unite with the Union Pacific railroad at the one hundredth meridian, provided the supreme court shall decide such to have been the intention of the Union Pacific railroad acts of '62, '64 and '65.

THE *Times* says a telegraphic dispatch was received at Cape Coast Castle, on the 25th of January, from the expeditionary force, announcing that Coomassie, the capital of Ashantee, had surrendered to General Sir Garnet Wolseley, and that the King and his family were prisoners.

A treaty of peace has been signed by General Sir Garnet Wolseley and the King of Ashantee.

THE Massachusetts Supreme Judicial Court has decided affirmatively the following question referred to it by an order of the Legislature: "Under the constitution of this Commonwealth can a woman be a member of the school committee?" The Court holds that the constitution contains nothing relating to school committees, and that the common law of England was our law upon the subject, permitting a woman to fill a local office of an administrative character, the duties attached to which were such that a woman was competent to perform them.

STATE OF THE FINANCES.

The public debt statement shows a decrease during February of \$2,590,087. Coin in the treasury, \$9,588,153; coin certificates, \$40,569,800; currency balance, \$3,727,754; special deposits of legal tenders, \$50,390,000; outstanding legal tenders, \$932,000.

KANSAS LEGISLATURE.—A session of the House was held Tuesday evening, at which the consideration of the Committee on State Affairs impeaching Mr. Hayes was made the special order. The session was very exciting one and much feeling was evinced. Mr. Mason, of Franklin county, made the principal speech in its favor and J. W. Taylor, of Leavenworth, against it. R. B. Taylor and Mr. Reasoner against impeachment, and Messrs. Stout, Mead and Porter in its favor. Various amendments were made for a vote of censure and favoring resignation, but were all defeated by a large majority. The resolution of impeachment was adopted by 74 to 20.

During the debate on the Hayes impeachment case, there was sharp sparring. Mr. Taylor, of Wyandotte, charged Horton with advising Hayes to purchase Atchison exchange. Mr. Horton denounced the statement as false and malicious.

THE MISSOURI STATE GRANGE Adjourned on the 24th of February. The assemblage was a large one, and the cause is reported in a most flourishing condition in that State.

The Colorado State Grange met on the 23d, at Boulder City. It was an adjourned meeting but was well attended.

Zinc Mining in Kansas.

The mining interest in our county and vicinity will be received a considerable stimulus from the new market for zinc, afforded by the Gulf road, near Cherokee, Kan. The works are built and owned by the Chicago Zinc and Mining company of Chicago, and are situated on one hundred and sixty acres of superior coal lands, owned by the company, and within easy reach of the Fort Scott and Gulf road on the west and the terminus of the Memphis, Carthage and Northwestern road on the east. All of the four large smelting furnaces are now being constantly fired preparatory to the first charging of ore on yesterday, and the two large roasting furnaces have been constantly running, preparing for the crude ore for nearly a month past. Besides these six furnaces, the works comprise an extensive pottery for the manufacture of fire-brick and fire clay retorts, crushing and screening apparatus of the most improved patterns and largest capacity. The works, as now completed, will smelt from one to two car-loads per day, and are prepared to use either blende or silicate ores in their different furnaces. The cost of the construction of the works is, in round figures, \$45,000, and of the mining lands and leases held by the company, \$20,000 more. We understand that the intention now is to double the furnace capacity in the spring by the erection of four more smelters and six more blende roasters. Our miners have already experienced very considerable benefits from the impulse given to the working of the black-jack deposits which, at prices now offering, yield a good living profit, and more than meet the expense of prospecting at the same time for lead. It is proposed to make these new furnaces the centre of the largest manufacturing interest in the Southwest, and we recommend the attention of miners and parties interested in zinc ore or lead lands to the liberal contracts offered by this company, and the facilities they possess for handling all descriptions of ore.—*Neosho Times*.

Market Review.

OFFICE OF THE KANSAS FARMER, TOPEKA, KAN. MAR. 4, 1874.

Topeka Money Market.

BONDS.
Kansas Pacific Gold Seven, May and Nov. Offer. Ask.
Kansas Pacific Gold Six, June and Dec. 90 80
Kansas Pacific Gold Six, Feb. and Aug. 91 81
Kansas Pacific Income Seven, No. 11, 92 82
Atchison, Topeka & Santa Fe First Mortgage, 75
Atchison, Topeka & Santa Fe L. G. T. Bonds, 80 55

LOCAL SECURITIES.

Kansas 6 per cent Bonds 93 City Script 85
State Warrants, per doz. 100 School Bonds 90 55
County Warrants, per doz. 100 Money on ap'd acc. 1 1/2
County 7 per cent rail- County 10 per cent 1 1/2
road Bonds 50 Improvement Bds, 92 1/2

GRAIN MARKET.

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Literary and Domestic.

EDITED BY MRS. M. W. HUDSON.

THE GHOST THAT JIM SAW.

BY BRET HAUTE.

[KANSAS PACIFIC RAILWAY—1873.]

"Why, as to that," said the engineer, "ghosts ain't things we are apt to fear, Spirits don't fool with levers much, And throttle valves don't take to such."

And as for Jim—
What happened to him
Was one half fact and other half whim.

Running one night on the line, he saw
A house—as plain as the moral law—
Just by the moonlit bank, and thence
Came a drunken man, with no more sense
Than to drop on the rail.

Flat as a fall,
As Jim drove by with his midnight mail.

Down went the patents—steam reversed—
Too late! for there came a "thud." Jim cursed
As his dream there in the cab with him
Kindly stared in the face of Jim.

And says, "What now?"
Says Jim, "What now?"
I've just run over a man—that's how!"

The dreamer stared at Jim. They ran
Back, but never saw house or man—
Nary a shadow within a mile;
Jim turned pale, but he tried to smile—
Then on he tore.

Then miles he tore,
In quicker time than he'd made afore.

Would you believe it!—the very next night
Up rose that house in the moonlight white;
Out comes the chap and drops as before,
Down goes the brakes, and the rest encores—
And so, in fact,

Each night that act
Occurred till folks swore Jim was cracked.

Humph! Let me see; it's a year now most
That I met Jim East, and says, "How's your
ghost?"

"Gone," says Jim, "and more, it's plain
That ghost don't trouble me again;
I thought I shook
That ghost when I took
A place on an eastern line—but look!

What should I meet the first trip out,
But that very house that we talked about
And that self-same man?" "Well," says I, "I
guess
It's time to stop this foolishness."

So I crammed on steam,
When there came a scream
From my dreamer—and it broke my dream—
"You've killed somebody!" Says I, "Not
much;
I've been there often, and that ain't no such,
And now I'll prove it. Back we ran,
And—darn my skin!—but there was a man
On the rail dead!
Smashed in the head—
Now, I call that madness!" That's all Jim
said.

For the Kansas Farmer.

ECONOMICAL FASHIONS.—No. 2.

BY MRS. CHARLOTTE SOUILLARD.

Very shabby hats or bonnets of nonpolitan or straw can be cleaned, pressed and altered to a new style for a trifling sum, from \$1.25 to 75 cts, a milliner will have them done or you can take them to the factory yourself. If of white straw they may be dyed brown or black before pressing and will look equal to new. You can trim them if you choose, as one good look in a milliner's window after the spring styles are out, will show you how to put on the ribbon and flowers. If you have no taste for such work, when your hat or bonnet is ready choose trimming, go and ask your milliner what she will charge to put them on. In this way your hat or bonnet, will look as well, and cost less, than if you select a new one ready trimmed, especially if you have lace or ribbon in the house. Some ladies keep a box for all such materials not soiled by the season's wear. A lady tells me that she has worn the same black lace, real thread lace, on her bonnet for six successive summers and it is apparently as good as new. Whenever it is much soiled she washes it in lager beer. Another lady made a stylish riding hat by covering a new frame with the outside of an old black silk hat which her husband had discarded. It was brushed with a soft damp brush before it was taken apart; a handsome summer hat may be made by covering a new frame with black lace or net. Such hats are fashionable in very hot weather and they are very easily trimmed. If you wish to remodel a black grenadine dress, sew the flounces on an old black silk skirt, this is better than wearing the dress over a silk skirt as it hangs better and is more easily put on. The part of the flounces should be cut bias and decrease in fullness as they reach the upper part of the skirt; they may be hemmed or bound with black watered ribbon $\frac{3}{4}$ of an inch wide. After the flounces are put on add an overskirt, which will when ruffled, just reach to the top of the upper flounce, the waist lining should be made high, both sleeves and waist to be lined with black silk; the silk lining in the waist should be made over brown or gray linen. Lace shawls may be draped to form round mantles, with armholes and a slender pointed hood. Turn the lace point up-side down so the straight top forms the bottom of the tunic; the point below is then at the top and is turned over from the neck and folded into the perfect form of a hood which is held in place by watered ribbon bows down the middle. The long ends at the sides are then each caught up high on the breast under a ribbon bow, and this leaves an open slit for each arm to pass through."

For the Kansas Farmer.

WHAT WE ASK FOR.

Doubtless many a farmer's wife, like myself, has turned with interest to the domestic department of the newly issued KANSAS FARMER, to see what good things there were in store for us. Our husbands and brothers are promised a feast of fat things; they are to have articles instructing them how, in the most approved and easiest manner, to plow and sow, to reap and mow; how to produce the best cattle, hogs &c., and then how best to dispose of all the work of their hands. But my sisters, what are we to have? Are we to make our own papers? For better it so, than to be edited as

some agricultural papers are. I like the way the new KANSAS FARMER starts out, for it comes not to us with loud and noisy promises of what grand things it is going to do. I was also much interested in an article, written by the editress, in the issue of Jan. 28th. She says "the KANSAS FARMER is not able to secure the services of Mrs. Stone, Daisy Eyebright and others;" but my sisters, are there not among us here in the west, those quite as capable of penning experience that shall strengthen and enlighten others? Yes, let us have a domestic department, not edited by some one hired for the purpose, as did one Kansas paper I could mention, heralded by a grand flourish of trumpets, commending all to read and wonder at the wisdom of her who was to fill the responsible place, and lo! we all with awed faces at our own inferiority, shrank back in the corner, and looked up to learn of the grand oracle. With many courtesies, she told us what great things she was going to do. Well, she gave us one recipe for making bread, which sounded as though she copied it from a book, and our "Martha" faded from view, gradually dissolving in flowery rhetoric. From such a domestic department in our new KANSAS FARMER, good Lord deliver us." Let us hear from mothers, of at least six children, who do all their own work, without aid of cook, nurse, seamstress, or laundress. Who have a personal supervision of all their household; wash and cook, make and mend for all their little ones, and their "gude mon," besides attending to the dairy and poultry also, and after all that find time to peruse the columns of their local, religious and agricultural papers. I know plenty of such women, whose actual, every day experience, could we but get them to give it to us, would be fully as interesting and instructive, as the letters of Mrs. Hunnibee or any other model writer. Think me not egotistical my sisters, I refer not to myself. Having been always a teacher until my marriage, what little I know of house keeping has been learned in the school of experience, and although some things, both in the domestic and nursery line I claim to be mistress of, I would not set myself up to teach others. What I want, is to hear from the actual workers our home mothers, and I feel that this wish will be echoed by every true woman who reads the KANSAS FARMER. JULIA, Round Prairie Kansas.

A KANSAN IN EUROPE.—No. 7.

BY RAMBLER.

Leaving Holyrood palace and turning north a walk of a few minutes brings us to Calton Hill. This is 350 feet high above the sea level and is beautifully terraced to the top. Ascending the stone steps we find that it commands one of the finest panoramas imaginable. Here we find the national monument which was to have been a reproduction of the Parthenon at Athens, but after erecting twelve massive pillars at a cost of 1000 pounds each, the work stopped for want of funds. Viewed from a distance this structure as it remains has a very fine effect. While engaged looking at this we remembered our own National monument at Washington remains unfinished, for the same reason. A few yards to the south stands Nelson's Monument; it is a circular turret about 100 feet high with a winding staircase inside and a battlemented top. It has nothing about it to remind us of the hero of Trafalgar, but looks very much like the light houses along the Canadian shore of Lake Erie. Nevertheless we climb the staircase after paying the attendant the usual sixpence and spend a very pleasant half hour taking a view of the surroundings. To the south and east of us is Queen's Park, almost surrounding Salisbury Crag, a hill about as high as the one we are on. Immediately to the south is the old part of the city with its crooked and narrow streets and queer old houses. To the west three miles stands Edinburgh Castle; between here and there on the right is the new part of the city regularly laid out with its streets running at right angles. Its handsome public buildings, open squares, beautiful monuments and tall church spires present a magnificent view to the eye of the traveler. At the foot of Calton Hill on the southern slope is the High School. It is a structure of pure Grecian Doric and consists of a center and two wings built of white free stone. Two lofty corridors, each with six Doric columns, connect the centre with the wings. This school is one of the first educational institutions in the country; its fame has reached the western world, and it has sent forth many of the most eminent men known to literature, science and art. A short distance to the west is the debtors jail this dismal looking old building stands in full view of the school, and its close proximity should impress upon the mind of the student the danger which attends him should he in after life fail to pay his just debts. The Post Office is a massive stone structure in the Italian style of architecture three stories high and cost 120,000 pounds. Farther to the westward, on Prince street, stands the Register House. This is also in the Italian style and is in the form of a square with a large central dome and two small towers at each front corner. With Yankee curiosity to see the inside of the building, we mount the steps and addressing an official, make a request to be shown what the building contains that would be interesting. A shilling slipped into his hand is the talisman to our success. We find it contains over 100 apartments and fireproof chambers for the transaction of business and the storage of valuable historical and legal documents; we are shown several letters from the Pope to the Scottish

barons dated from Rome in 1820, the acts of settlement of the Scottish crown to the Stuarts in 1871 and several other records of ancient date. These are all on very old and yellow looking parchment and have a superabundance of heavy wax seals attached to them. North of the Register House is St. Andrew's Square, in the centre of which stands the Melville Monument. This is a tall fluted column 136 feet high, and cost 8000 pounds. The history of this we find as follows: "Erected in 1821 to commemorate Henry Dundas, the first discount Melville, who was Lord Advocate for Scotland, 1775, and who afterwards filled several ministerial offices during the administration of Pitt. He was impeached by the House of Commons for embezzlement, while he was 'Treasurer to the Navy,' but was declared not guilty by the Peers." Thus we see that the higher officers of other countries know how to take care of the public funds as well as ours in Kansas. In the centre of Prince, and at the crossing of St. David's street stands the Scott monument. This structure is about 200 feet high. A Gothic spire supported by four English arches which serve as a canopy for the statue. In the niches over each arch are figures of the leading characters in his works, Meg Merrilies, George Heriot, The Lady of the Lake and the Last Minstrel. The figure of Sir Walter, with his dog at his feet, is of Italian marble, the rest of the structure is Scotch granite, and cost upwards of 2000 pounds sterling.

For the Kansas Farmer.

HOME HINTS, No. 2.

BY BETTY BADGER.

FRIED BREAD.

One of the nicest dishes that can be cooked for breakfast is fried bread; take the slices of stale bread, dip for an instant in boiling water, and fry with butter in a hot skillet until of a light brown color, then turn and brown the other side; or the bread may be dipped in a thin batter and then fried, eat with butter or syrup.

EGGS ON TOAST.

Toast brown on both sides some slices of stale bread, dip in hot water to soften, then place them on a dish in the stove until the eggs are cooked. Poach the eggs by breaking them one at a time into a pan of boiling water, dipping them out as soon as the white is set, not allowing them to boil hard; serve up hot with an egg on each slice of toast, and season with pepper and salt.

DRY BREAD GRIDDLE CAKES.

To a quart of milk add pieces of bread sufficient to absorb it; let them soak for three hours, then press the whole through a sieve, add half a tea spoonful of salt, a table spoonful of butter, two eggs and a small quantity of saleratus, mix the whole thoroughly and bake on a hot griddle.

Freeport, Pa., Feb. 4, 1874.

Horseback Riding.

Breathe it not aloud, lest we be excluded from good society," but we cannot help deploring the false standard of refinement that is depriving us of such glorious exercises as riding a spirited horse, and yet, we rarely find young people of either sex, that can ride gracefully or safely. The possession of equestrian fashion, and those who can afford them, prefer to be called in the "big wagon," rather than to occupy a seat as easy as a cradle on the back of a good horse.

The good results of horseback exercises are not confined to the pleasure alone; it is a specific to nearly all the diseases arising from exhaustion from taxation of either body or mind. Mental depression flies before it, as leaves before the wind. There is a bond of sympathy between one who loves to ride—loves her horse—and the noble animal itself. We do not altogether approve of trials of equestrianism at our agricultural fairs, yet the love of it should be fostered and encouraged in that way, rather than not at all; but we do admire the fearlessness and energy that enables one of even the "gentler sex" to catch, saddle and mount a horse at any time and under any circumstances. We deplore the want of interest manifested by parents in teaching their children to handle, train and love horses; and there is great propriety in having girls understand the art in all its details. Nothing so excites our admiration, (shall we say our disgust?) as a nervous, timid woman that shrinks or faints away every time the horse before the carriage makes an unwonted movement of head or heels. Therefore boys and girls equally should learn to handle horses, to harness, to ride, to love them; and they will be the better for it. We have a large stock of admiration and reverence for that matron, the mother of President Jackson, when we think of her wending her lonely way on horseback, with but a halter for trappings, bringing home her wounded Robert, burning with fever, and high unto death. Our girls may never be called upon for such a display of moral and physical courage; but as it cannot be foreseen what misfortune may befall them, or in what situation they may be placed, let them learn to control and ride the horse well, gracefully and fearlessly.—Cor. Iowa Homestead.

Teach Your Boy to Aspire.

Much proper advice is bestowed on boys and young men that never gets beyond the drums of their ears. One of the most useful ideas you can introduce in a young head is that its owner is bound to make his mark in the world if he chooses to try. Teach him that it depends solely upon himself whether he soars above the dead level of mediocrity or not; whether he crawls or flies. Give him, as far as possible, confidence in his own inherent capabilities. Argue that he has the same faculties by which others have risen to distinction, and that he has only to cultivate them and apply in their exercise that mighty propulsive agent, a determined will, in order to rise. Bid him shoot his arrows not at the horizon, but the zenith. A boy who sets out in life with the Presidency in his eye, although he may fall short of the

mark, will be pretty sure to reach a higher position than if his ambition had been limited to the position of town constable, or a tide waiter's berth in the Custom House. This is not a land where poverty is a serious impediment to advancement. Very few of our millionaires were born with gold spoons in their mouths, and several of the most distinguished of our statesmen earned their bread in early life by the sweat of their brow. Fortune's gifts are wrung from her in this country by heads and hearts that know no such word as fail, and Fame has no special favor for the silk stocking class. Action, says Aristotle, is the essence of oratory, but it is more true that an energetic will is the soul of success. The best temporal advice a father can give a son is "aspire."

Boy, let the eagle's flight ever be thine,
Onward and upward and true to the line.

Attar of Roses.

This choice perfume is much used both in the East and West, and was first manufactured by an Arabian physician of the tenth century. The attar is an oily film which collects, on the surface of the rose-water, and is skimmed off and placed in a bottle. Five hundred pounds of roses only produce one ounce of attar, so that a small vial is worth \$250. Cashmere furnishes the best, since the rose grows there in greatest luxuriance. Rose-water is considered by orientals as the most cleansing of perfumes, and when the Mohammedans converted the church of St. Sophia into a mosque, it was first washed with rose-water, and they always use it in the dedication of their temples.

In Germany a rose tree has obtained great renown, being nearly a thousand years old. It grew in the crypt of the cathedral of Hildesheim; its stem is twenty-seven feet high, and it has spread over a width of thirty-two feet.

Paste for Wall Paper.

In pasting wall-papers, etc., especially where successive papers are put on, there arises a most disagreeable effluvia, which is particularly noticeable in damp weather. The cause of this is the decomposition of the paste. In close rooms it is very unwholesome, and often the cause of disease. In large manufactories, where quantities of paste are used, it becomes sour and offensive. Glue, also, has a very disagreeable odor. If, when making paste or glue, a small quantity of carbolic acid is added, it will keep sweet and free from offensive smells. A few drops added to ink or mucilage prevent mold. In whitewashing the cellar and dairy, if an ounce of carbolic acid is added to each gallon of wash, it will prevent mold and the disagreeable taints often perceived in meat and milk from dark apartments. Another great advantage in the use of carbolic acid in paste for wall-paper and in whitewash, is, that it will drive away cockroaches and other insect pests. The cheapest and best form of carbolic acid is in crystals, which dissolve in water or kerosene in an excess of temperature.—American Homestead.

A Cheap Wash for Buildings.

Take a clean water-tight cask and put into it a half bushel of unslaked lime. Cover it with boiling-hot water six inches deep, stir briskly, and wait for the lime to slake. To the lime and water add two pounds of a cheap salt called sulphate of zinc (white vitriol) and one pound of common salt. These ingredients cause the whitewash to harden, and not crack and fall off. To form a beautiful cream color, add three pounds of yellow ochre. A lump of ivory black will give a pearl or lead color. Lamp-black may be used to produce a darker color if desired. Applied to palings, plank fences, and all outbuildings, they last much longer and look better.

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 subside, and no lameness which it will not cure. This is strong language, but it 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, gonorrhea, ear-ache, &c., and the recipe of the Liniment will be sent gratis to any one. It is the most 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 scrofulous in sheep. No family or stock-holder can afford to be without Centaur Liniment. Price, 50 cents a large bottle, \$1.00. J. B. Rose & Co., 55 Broadway, New York.

CASTORIA is more than a substitute for Castor 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. 10-19-74

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When applied with D. Pierce's Nasal Douche and accompanied with Dr. Pierce's Golden Medical Discovery as constitutional treatment, Dr. Sage's Catarrh Remedy produces perfect cures of the worst cases of Catarrh and Ozena of many years' standing. This thorough course of medication constitutes the only scientific, rational, safe and successful manner of treating this odious disease that has ever been offered to the afflicted. So successful has it proved that the proprietor has long offered a standing reward of \$5000 for a case of Catarrh which he can not cure.

INDISPUTABLE EVIDENCE.

THOS. J. BISHOP, of South Brooklyn, N. Y., writes that his wife had suffered since a child with Catarrh until it had resulted in what eminent physicians pronounced Consumption; that she had used Dr. Sage's Catarrh Remedy with Dr. Pierce's Golden Medical Discovery, and they have worked wonders with her case.

STEALING OUR THUNDER.

People should beware of those impostors who not only try to imitate Dr. Pierce's Family Medicines but also copy his original style of advertising by offering various rewards, for cases of Catarrh and other diseases which they cannot cure. Those who do not possess sufficient intelligence to enable them to write original advertisements of their own, but have to steal those of others, are not likely to have made great and valuable discoveries in Medicine. Look out for them.

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Kansas Loan and Trust Co.

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Parties applying should write full particulars, and be sure their title is unclouded.

Money on hand for Loans in sums of \$1,000 to \$5,000, upon Improved Farms in well settled Counties, provided the land is worth at least three times the amount of Loan desired.

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Fottler's Early Drumhead.

FARMERS and Gardeners you all need this Cabbage for two reasons: 1st, because it is the earliest of all the drumhead varieties; 2d, because every plant on an acre will make a large and solid head. Seed of my own growing sent postpaid by me for 15 cents per package; 75 cents per oz., \$8 per pound. My Seed Catalogue free to all applicants.

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C. C. C. the true CAPE COD CRANBERRY. Best sort—Up-land, Lowland or Garden—by mail prepaid. Priced Catalogue gratis of this and all Fruits, Ornamental Trees, Evergreens, Shrubs, Roses, etc., and Fresh Flower and Garden Seeds (all sorts)—the choicest collection in the country, with all novelties. 50,000 Cranberries and Giant Asparagus, 1, 2 and 3 year plants. J. M. WATSON, Old Colony Nurseries and Seed Warehouse, Plymouth, Mass.

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We have a large stock of Seed Sweet Potatoes of the leading varieties at market prices. Quality unassured. Plants of all varieties in proper season. Send for descriptive circular. Address WILLIAMSON BROS., Box 211 Kansas City, Mo.

Kansas City is the best Hog Market in the West. The crop for 1873-4 was unequal to the demand. Packing Houses were compelled to shut down. Before the season was over, for want of Hogs.

GREAT AUCTION SALE

OF THOROUGHBRED

BERKSHIRE HOGS!

Thursday, March 12, 1874.

Commencing at 10 A. M.

At the Kansas City Stock Yards, W. Kansas City.

I will sell at public auction on the above date the extensive and widely known herd of Pure Bred Berkshire Hogs, formerly the property of Maj. J. K. Hudson, proprietor of the Kansas Farmer, consisting of animals from herds of the following breeders and raisers of National Reputation: Bedford, Clay, and Bush Bros., of Kentucky; Crowder and Smith, of Illinois; Grant, of Ohio; Craig and Cochran, of Canada; Richard Richards, of Racine, and others. The aged animals offered for sale were culled from the herds of the foregoing at a cost of over \$1000. The unrivaled excellence of the Berkshire as the hog for this climate, its freedom from disease, and its special value as a grazer, has made it impossible to keep pace with the demand for the stock. The entire herd will be closed out to the highest bidders without reservation, on the day of sale, in lots to suit purchasers. Guarantees of purity of blood and breeding will be given to purchasers on day of sale. No other animals but those composing the famous herd of Maj. Hudson will be offered for sale. Among the animals to be sold are the following of established reputation among all breeders and raisers of the West: Breeding Boars—Brigham Young, Bismarck, Kentucky; Breeding Sows—Queen Bees, Beauty, English Maiden, Lady Crowder, Queen. At the Kansas City Exposition of 1873 this herd carried off the Sweepstakes, besides many others by various animals of the herd. For three days previous to day of sale the herd will be on exhibition at the Kansas Stock Yards. Up to that time it can be seen at Hillside Farm, $\frac{3}{4}$ miles southwest of Kansas City.

TERMS OF SALE—\$75 and under, Cash; over that amount, one-half Cash and one-half in sixty days with approved paper. For further information, address or call on FRANK HUDSON, Cor. Missouri Ave. & Main St., Kansas City, Mo.

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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.
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All stock guaranteed true to name. Address, WARD & BROS., Pomona, Kan.
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TWO YEARS OLD HEDGE PLANTS.

FARMERS and Nurserymen remember that yearling Osgood Plants are small this year. If you want two years old plants, or any other kind of Nursery Stock, send your orders to
GEO. P. ALLEN,
Salt Creek Nursery, Leavenworth, Kan.

READ. PEACH STOCKS.

FOR budding next fall, one year, one foot high, \$2.00 per 1,000. Peach Trees, seedlings, 3 to 4 feet, \$8.00 per 1,000; one year Apple, Ben Davis, 5 to 12 inches, \$8.00 per 1,000. No charge for boxes. One-third cash remainder C.O.D.
FOOT BROS., Flora, Ill.

FOR SALE.

20,000 Two years old Concord Grape Vines Cheap. Address J. L. PHILLIPS, Quindaro, Kan.

1,000,000 Hedge Plants for Sale.

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.
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