

VOL. XIV. NO. 6.

periment to determine the loss of plant food from the soil by the process of washing and drainage. They have arranged an immense rain gauge covering exactly one one-thousandth of an acre. Then by means of a large circular

separate vessels a large series of natural drainage waters, which they are now examining to ascertain what loss or change the plant food off the soil may have undergone. In fact the work accomplished at this farm at Rothamstead very justly ranks at the head of any and all enterprises in Experimental Agriculture, and may well be a subject of English national pride.

Now I have given you this rapid sketch of these experimental enterprises in Europe, simply for the purpose of showing you the amount of talent, money and time which are there being devoted, simply and solely for the benefit of the farmer and fruit grower. In contrast with this, what have we upon this side of the Atlantic? Hardly the shadow of what may be properly termed an experimental station for the benefit of our farm or fruit interests from Maine to California, one exception to that statement must however be here noticed in the State Board of Agriculture of Connecticut, who are now vigorously engaged in establishing an experiment station at Middletown.

To be sure as you pass West-ward from the Atlantic sea board you will find as you pass through the different States some professor of practical Agriculture or of Agricultural Chemistry in some one of these Agricultural Colleges who does make spasmodic and occasional attempts at a course of experiment. But finding that the attempts cost time that it costs money and that the result is failure quite as often as success, he generally, after a trial or two, throws up the whole undertaking and becomes convinced that "Experimental Agriculture in the United States is a humbug," whereupon follow the comments of the Agricultural press of his State which are apt to prove anything but complimentary.

And sure enough in the great majority of cases the course of experiment which this professor has been endeavoring to inaugurate is a humbug, for if carefully examined these experiments will be found to have no earthly connection with the immediate needs of the farmers of his State. But on the other hand often a mere repetition of some complex foreign experiment which he finds reported at length in the journal of some foreign society. Under such circumstances the division and ridicule of practical men which naturally follow are not only very well earned but very well deserved.

It is by reason of these unfortunate failures that heretofore when any attempt has been made to advocate the establishment of an experimental station in the United States—we have been forced to regard the enterprise as visionary and impracticable. But from our examination of these German Experiment Stations we have seen, that the brilliant success which they have invariably attained, that the incalculable good which they have invariably accomplished has been simply due to the fact that they have given themselves wholly to that work which German farmers needed and demanded. But on the other hand when we shall once inaugurate the experimental work which our interests demand here to-day, it will no more follow that we will transplant one of these German stations bodily into our midst than that we shall adopt their complex and expensive methods of farm culture. The factors which enter into the great problems of National farm economy are in the two nations essentially distinct. Here land is cheap, labor expensive. There farm lands can hardly be bought at any price and human life and labor so abundant that it can hardly be said to have a market value. To sustain such a dense population they must force every acre of land to carry its heaviest harvest; hence their complex methods and their free use of costly fertilizers. But for fifty years to come our culture here in Kansas must be what is termed "pioneer farming." We can not afford these costly foreign methods, for the reason that half the farming lands of Kansas are not worth per acre the cost of a single ton of commercial fertilizer. On the other hand, do we need to be reminded that there are constantly arising among our farmers and fruit growers, questions as to the best methods of culture, the best manner of improving and enriching our lands, of the best fruits to be grown, which could they be fairly be answered, would be money in the pocket of every man in the State? Questions brought up by some anxious inquirer, branching out upon some new enterprise, discussed for a week or two through our agricultural papers, and the said anxious inquirer finally left to purchase his own information by his own bitter experience. My friends, what we need and demand in this State to-day, is experimental work and investigation to answer just such questions. An experiment station which shall devote itself to those practical problems, which, as farmers and fruit growers, we need to know and must know. I do not need to call your attention to the beautiful fitness of Kansas for such an undertaking; a State in which there remains so much to be developed, and so much to learn. I am, however, very well aware that even in Kansas, there are men who express their entire disbelief in the value of all experiments or who consider our climate too fickle and uncertain for such enterprises to be at all worth their attention. But, my friends, you and I have no time to discuss such points with such men. We can only point them to the fact that our Agriculture and Horticulture, to-day, are the very creators of experiment. That our wisdom in these arts is but the sum of the maxims of the wisdom of the past. That we do this because those who have preceded us have found that it pays so to do; we do not follow such a course because that course has

been found to generally terminate in failure. In fact the principles which we are to-day employing are simply the results of the centuries of involuntary experiment which have preceded us. Experiments which have been forced by circumstance and necessity, what can we not hope then to accomplish for ourselves by a full, careful and comprehensive course of experiment. Then to the very vicissitudes and uncertainties of our climate make this a matter of still more vital importance. We have none of us either time or money to waste in finding out what courses will probably fail if attempted here, we need these courses pointed out to us, and the best methods indicated, that we may make every effort fail. We must carefully bear in mind, however, that the principles which these experiments establish for us are not mathematical laws. That an experiment which has succeeded at one place and under one set of circumstances, will by no means from mathematical necessity succeed at all other places and under all other conditions, but what it does establish for us is the great law of probability, upon which nearly every effort of our every day lives depends. Again an experiment will frequently prove of quite as much value by its failure as by its success; it teaches us the truth in either case.

Those of you as fruit growers can understand far better than I can tell you the work which such a station could accomplish for you. There could be no stronger argument than that advanced at the meeting of the State Horticultural Society at Fort Scott last summer, in the five or six hundred per cent. profit which the fruit growers of Kansas might to-day be putting in their pocket if, when first beginning they had planted those varieties they now know to be most successful. Why shall the thousands of fruit growers throughout our whole State continue to sink their money and waste their time in determining questions which can as well be answered for them by intelligent experiment once for all. But from the very extent and nature of our State, one station only will not answer fully the purpose of our horticultural interests. Our climatic conditions are too diverse. We know that different varieties adapt themselves differently in Northern, Central and Southern Kansas.

By our rainfall alone our State can be divided into three distinct transverse belts. Hence while our central station might give a very fair average of our climatic conditions, the extreme portions must be tested—; this can be and is now being done by sub-stations consisting of individual fruit growers who are willing to co-operate and report through the main station. The annual reports of such experimental work might thus form an invaluable medium by which the wealth of experience of the veteran fruit growers might be directly available to us as young men who are just launching out upon the work.

Above all we need the work of such a station to develop our resources and interests as a State. We are to-day underlain by the finest deposit of gypsum or plaster in the United States which it is a shame to us as a State not to have better developed and utilized. I look upon this question of plaster as one of the most important to which a Kansas farmer can give his attention; for if anything has been proved with reference to the use of plaster as a fertilizer it has been its beneficial effects during a dry and scorching season, and if there is anything in our reach that can aid us in this matter by all means let us have it.

Now the proper location for such experimental work in any State is plainly enough at its Agricultural College—and in this connection I know that I speak the honest conviction of every industrial educator of the country when I state that the Agricultural Colleges of our country which in their three departments of the Garden, the Farm and the Chemical, have not breathed the very atmosphere of experiment have been failures, in the most emphatic sense of that word. On the other hand what has already been accomplished in our own State shows what may yet be done. I need hardly point you to the one experiment of our Department of Horticulture which in unprosperous season has balanced its books and placed \$1,500 to its credit. Or to the experiments of the farm department upon some sixty varieties of grasses which have already created no little interest throughout the State. And finally, as there is hardly a problem arising in either department which has not its chemical phases, and its chemical questions to be answered. The chemist may rejoice himself heartily in the prospect of making himself useful to both. The questions which are constantly arising in this State, and which open up before him a most fascinating field of research are absolutely without number. Here is the examination of our farm soils, in progress for a year and a half past. Here is this gypsum question to which I have already referred. Other questions are daily arising; for example, you perhaps remember a discussion which attracted no little attention through our agricultural press only a short time ago, concerning what was called the "ensilage" of corn fodder; in which the process of burying the now waste cornstalks in trenches was recommended as producing a nutritious article of food for stock. Now in this process a fermentation is produced, which in some manner partly changes the indigestible cellulose and woody fiber of the stalk back again into a nutritious article of food; what that change is, is not at present thoroughly understood, but it will be determined, and by chemical examination; when the experiment is performed upon our college farm the coming season. Only a few weeks ago while discussing this enterprise with my friend, Prof. C. V. Riley, of St. Louis, after expressing his entire approval, and promising his hearty co-operation, he informed me that there was positively not a point in the entire West, where, as a practical entomologist he could have performed full and thorough experiments upon the composition and use of compounds for the extermination of our insect pests. Thus then here opens up another most promising field for the work of such an experiment station; and the amount

which might thus be annually saved the pockets of the fruit growers of the State, in the simple exposure of these quick nostrums, and compound exterminators which are now being offered for sale through this State would be by no means inconsiderable. Many of these compounds which I have recently examined in my laboratory prove to be not only useless but some of them even injurious in their effects. The problem of the best means of exterminating our insect foes is to us in this State a vitally important one. If a compound is produced which proves of value as an insect exterminator, let us make it known, and upon the other hand let us fearlessly expose every patent fraud to every fruit grower in the State. Finally this inauguration of this enterprise is an undertaking which need be preceded by no formalities. It needs no charter, it calls for no appropriation of the State's money. It simply requires that we shall now make use of the facilities now within our hands, and with united effort, work toward the common end. As I have already intimated this experiment station has already made its beginning, with its commission already organized and at work with its score of correspondents from all parts of the State. But it is to the interest and co-operation of you, as intelligent farmers and fruit growers, that it can alone look for the successful issue of its work, and as such I commend it to you as a matter well worth your earnest attention.

For I believe that it is here in this experimental work and investigation that there lies the true mission of him who calls himself a man of science—devoting the principles of his science to these practical needs and industries of our State. "Science can not afford simply to breathe the old methods; she must herself take hold of the work and show us how heavier crops can be grown more cheaply; that will be sending a shot home." To us is committed this great work of blending science and practice into an harmonious unity; of bringing forward that day when Agriculture—now an unpractical art—shall rank far up in the sisterhood of the sciences, for when viewed from this high standpoint it is a noble task. It is thus that we shall prove ourselves well worthy the fair name and fame of our adopted State and commonwealth. It is thus that we shall make straight the way for the multitudes who are to come after us.

For the Kansas Farmer.

HOW TO MAKE MONEY FARMING. No. 111.

One of my neighbors stopped to warn to-day, and the subject of *thoroughness* in farming, was the main topic of our conversation.

The plans of our dwelling houses, our barns, our feed lots, &c., &c., were talked about, and there was scarcely an improvement about our farms but what really needed changing. One felt that his house was too small, and that an additional outlay of ten or fifteen dollars in enlarging his kitchen, would have been paid for over and over, by increased comfort and convenience, which the additional space would have given. The other said he was continually annoyed by a leaky roof, which was caused by allowing the carpenters to run a race while putting on the shingles. If at the commencement of the work of improving our farms, each of us had been thoroughly imbued with the idea of thoroughness in everything pertaining to Agriculture, it would have been very much better for us, and our example would have had its effect on those around us. I know men who say that the greatest mistake of their lives, was in building too large a house. Everything swallowed up in the dwelling. No barn for the horses. No sheds for the cattle. No shelter for the hogs. Only a great big fine looking house, with no furniture in it, and not finished up stairs. An inquiry reveals the fact that the carpenter was allowed unlimited sway, and the deposits in the bank were all exhausted before the building was completed. Then there was no money to buy lumber to build stables, pens, stock lots &c. The result is, the horses must stand under a shelter of prairie grass. The cows must seek shelter in the corner of the fence. The hogs endeavor to root a hole in the ground sufficient to break the cold winds from their shivering bodies. These are but a few of the subjects with which we are called upon to deal, all our lives, and if I never wrote another line upon the subject of how to make money farming, and your readers would simply remember this injunction, *be thorough* in all things, I should feel I had accomplished all I desired when commencing these articles.

Feb. 1st, 1876.

BREEDING, REARING AND CULTURE OF THE SILK WORMS.

BY S. CROZIER, SILKVILLE, KANSAS.

The following extract is taken from a pamphlet having the above title and is published by permission of the author who cannot at this season find leisure to finish the series of articles begun in issue Dec. 29th, 1875.

[CONTINUED FROM LAST ISSUE.]

FIFTH AGE.

Putting up the Heath. Six or eight days after the fourth sleep, if you see the worms losing their appetite, taking a dislike to the leaves, shrinking from it, growing smaller, becoming transparent as if containing a clear liquid, gold colored for the yellow, for the other three colors, the color of their silk; and raising their head which they move to and fro, if some commence spinning their cocoons among the leaves or climb up the shelves, it is time to give them the heath.

HOW TO SET THE HEATH.

To set the heath or give wood, means to prepare cells for the formation of the cocoons. In many districts of South France, heath is used for that, hence the term now technical: set up the heath. Branches of evergreen or common oak, olive tree, etc., are used too. As well as wheat straw or colewort straw. I have found here plenty of shrubs and other plants among weeds which will do just as well as our heath. Their names will be given further. They may be gathered and prepared in winter, and kept tied in bunches ready for use. These branches must be cut four inches lon-

ger than the intervals between the trays or tables placed over each other, first to have them tight, and to form above each table a branchy ceiling close to the under side of the next table above, leaving as little space of its boards uncovered as possible, the worms being apt to fall from a bare board, and not be able to climb up again. To do that, the branches, or small bunches of weeds are set up perpendicularly, in straight rows across the tables from edge to edge, commencing with the uppermost table. Generally the ceiling is used to prop or rest the top of the first set of branches, otherwise, loaded boards have to be disposed at the required distance above the table. The branches set up perpendicularly head upwards, stem downward, in perfectly straight rows are bent in their upper part alternately right and left, against the upper boards or table, so as to form an ogive like arches. These arches would leave up the uppermost tables, if not fixed, and all the others successively.

Have the stems close enough to each other, so that the wandering worms may find them easily; the branches bushy, still dot too thick for the worms to work easy among them. The rows about fourteen inches apart must be very straight to enable the operator to continue feeding and leaving the litter in these new compartments. That work is considerably shortened, or rather entirely suppressed, if the hurdle system used in the cocoons at Silkville is adopted. These hurdles, in which the worms appear comfortable and easy to attend to, are very handy to be moved from place to place, and are made of a double row of cleats so disposed as to enclose the cocoons in their intervals. Ladders are made in the same model, and then ready the moment of setting the heath. Their use dispenses entirely with the work of preparation and putting up the branches.

One not used to the raising of Silk-worms, can have no idea of the feeling imparted by the sight of these thousand insects, starting to motion, climbing up the branches, looking for a favorable spot, then leaving a fine thin thread at every attainable sprig, surrounding themselves by degrees with a transparent gauze, which is not silk yet, it is the feces. When the insect has achieved the preparation of the ground by means of all these ties, then commences a regular work. An elegant form is shaped, the Silk-worm is seen yet, but the tissue thickens rapidly, taking in color green, white, yellow, or red, and the insect finally disappears. In twenty-four hours its cocoon is perfected. Imagination can scarcely conceive how an insect always seen so far destitute of quickness, can in such a short time, work out a ball whose only thread is often 1300 yards in length, so easily wound off, that the reel on which it is wound, more than two yards in circumference, may be made to turn as fast as the wheels of a carriage driven at full speed, and if the spinner is attentive, the thread will not break.

Yet, spite of all care and pains taken by the breeder to insure evenness in the worms, they will not go up all at the same time. It takes often four or five days for all those of the same party to make their cocoons. It is indispensable then to multiply the meals as much as possible by giving a very small quantity of leaves each time. For every instant some of them give up the leaf for the wood or branches. Then too, they rid themselves of all the matter contained in the body, and soil the food for the others which remain behind. Feed them little and often; the best way to secure that result is to chop the leaves. A handful of cut leaves will spread itself on a whole case, and each worm takes the little he may want to get quite ready. With whole leaves one reeds always too much, and with great difficulty, not having a regular leaf cutter, I found out a most speedy way to cut it rapidly. Here it is: Grind very sharp, one of those scythes, like hay knives, used to cut hay from the stack; gather the leaves in a heap, pressing them under your knees, cut first the sides all round so as to have the heap square, then you may go on cutting an inch or so in thickness, for it is useless to cut it too fine. In this way, a man can cut a hundred pounds of leaves or more in a quarter of an hour. A leaf cutter does no better. The advantages of cutting the leaf are to make double the quantity of work in spreading it on the worms; to save at least one half of the leaf, and consequently time in picking it; by sparing leaves avoid fermentation or the litter, of the trouble of cleaning at least one time; and last, to prevent worms from being injured by fermenting leaves and some of them to make their cocoon among the leaves which occur very often, when the leaf being whole and mixed with twigs, they find interstices handy to work them in. Such cocoons are lost or spoiled too often. The cut leaves do not present such danger. In no case is a due degree of warmth needed more than now, while the insects are making their cocoons; this enables them to draw forth, and to surrender promptly the whole amount of silk which they have laid up in store. Ventilation by all means; with it you save leaves, time, and silk.

When nearly all the worms have come out, and but few remain in the cell, the litter must be taken out one by one and put in separate cases prepared for that use. It is worse than useless to spend an hour's time in feeding a few leaves in a hundred cells to worms that could hold in one. Immediately after you remove the litter, and then work is done, you have nothing left to do but to harvest.

The total bullion shipment of Colorado for 1875 was \$2,889,685, of which Gilpin county contributed \$1,769,085, or more than one-half.

Written expressly for the Kansas Farmer.

ORCHARDS. NUMBER IV.

ANATOMY OF THE PLANTS.

To succeed in any enterprise, it is necessary in the beginning to study it and to know its minutest particulars. Only intelligent working will give a true and real satisfaction, hence the necessity for the Orchardist, to know all the organs and parts of a tree, if he would act understandingly.

The study of these organs is called the anatomy of plants. In the class book of Botany by Professor Wood; it is very clearly explained and I would advise those who are able to do so and who want to study it thoroughly, to supply themselves with that interesting work. For any one not having the opportunity to read for that work, I will try to give the explanation as clearly as possible.

1. As we will see hereafter, the tree grows at the same time in the soil and in the air, and in each of these elements certain organs are produced. Those in the soil are called the *radical system*, those above the soil are called the *rameous system*, they constitute the *external organs*.

2. The *radical system* is composed of a, the collar, b, the axis, c, the rootlets, d, the fibers, e, the spongioles.

3. The *rameous system* is composed of f, the stems, g, the limbs, h, the branches, i, the twigs, j, the leaves, k, the eyes, l, the flower-buds, m, the flower, n, the fruit, o, the seed.

4. The *internal organs* are, a, the pith or marrow, b, the ligneous layers, c, the cortical layers, d, the epidermis, e, the cellular, f, the vessels.

LET US EXPLAIN EACH OF THESE ORGANS.

5. The collar exists in the seed itself, later it is that part which is supposed to be above or a little in the soil, the intermediate point between the two systems descending and ascending.

6. The axis is the principal root, ordinarily alone or simply beginning at the collar and running more or less perpendicular in the ground.

7. The rootlets grow along the axis, their use specially is to fix the plant in the soil.

8. The fibers are the small rootlets that are always renewed without enlarging; they are in direct connection with the leaves.

9. The spongioles are the uttermost spongioles parts, endowed with a great absorptive force; their principal work is to absorb the water in the ground.

WORK AND DIRECTION OF THE ROOTS.

10. The radical system, not only serves to keep the tree in the soil, but also to nourish it by the absorption from the soil of the saps which become appropriated to its nutrition by the elaboration that they undergo thereafter. Some trees have a natural way to grow in a perpendicular direction in the ground; their roots are large, they are called trees with descending axis-roots. Others keep their roots nearer the surface of the soil, they have a more divided system and are called, trees with tracing or inaxial roots. It must be remembered that the more fibers on the rootlets the better it will be for the vegetation.

11. The rameous system includes the stem or trunk supporting the limbs h, where the branches i, are attached and that produce the twigs j. Before the twig has grown it is a bud, on the twigs we have the leaves, on the end of each leaf we have either eyes or fruit buds, which produce the fruit and the seed. In the spring when the eye is developed it becomes a twig and keeps that name till it has become ligneous and hard which is generally in the fall, it then becomes a branch.

The mode of growing in the rameous system is always corresponding with the growing of the radical system. It is for that reason that the branches of a pear tree grow always upright corresponding with the axis or down growing roots, and that the apple tree has horizontal branches corresponding to tracing or inaxial roots.

EYES AND BUDS.

The eyes are sharper and more pointed and are the twigs. The buds are rounder and are developed in flowers. There is a great difference, and still these two organs are many times taken one for the other. They are both more or less round, covered with scales woolly and viscid to protect the interior of the eye or bud.

The leaf that pre-exists already in the eye comes out at the same time the twig is developed. The blade of the leaf is very important in the vegetation, it fulfills in the air the same duties as the spongioles in the soil.

INTERNAL ORGANS.

We know already what they are; so I will not repeat. When we cut a tree stem lengthwise, we find in the center the marrow or pith, then the wood formed of ligneous layers and finally the bark consisting in cortical layers.

The marrow from the circumference of which commences the medullary rays is composed of a light and transparent tissue and it serves in the winter as a depot for the saps elaborated by the leaves.

THE LIGNEOUS LAYERS.

The wood is formed by several superposed rings of different ages, and is formed from the interior to the exterior. The most internal layers which are the oldest, form the perfect wood; the external layers which are younger, form the alburnum, (in French aubier) the vital part of the wood is tenderer than the other parts.

THE CORTICAL LAYERS.

The bark is composed of several thin layers form the reverse of the ligneous layers, that is from the exterior to the interior; it is com-

posed of three different parts. After the album and going to the outside, we find first a very thin layer which is named the *liber*; this is the living part of the bark; it is renewed every year and worked to the outside and constitute later, the cortical layers, covered externally by a thin tissue, transparent elastic and called *epidermis*, it exists as long as the plant is young and grows hard and coarse when the tree is older. Some trees suffer sometimes because their *epidermis* can not extend itself or crack; it is for this reason that we are sometimes obliged to make a longitudinal incision in the bark; on the North side, so that the sun would have no effect on it.

CELLS AND VESSELS.

All the organs heretofore described internal and external, are composed of organs formed themselves by the organs called elementary which are the cells and the vessels, which nevertheless make equally parts of the internal organs. These bodies hollow, prismatic, globular and tubular, solid and anastomosed, together make a kind of network, which is the cellular and vascular tissue of the plants that forms the heart of the wood and communicates with the external air by small pipes called medullary rays. The flesh of the fruit and the young parts of the trees are formed by the cellular tissue: while the ligneous part and all the hard and tenacious parts of the plants form the vascular tissue. G. B.

Written for the Kansas Farmer.

CARE REQUIRED IN RAISING HOGS.

The hog, as a machine to convert our main staple, corn, into a product that will bear transportation to the seaboard, stands pre-eminently at the head of the list, and yet as a branch of industry, practically, in every day use among the farmers of the West, it receives less thought and less study than any other branch of industry of the same magnitude. There are farmers in the West who handle hogs understandingly, but they are a small per cent. of those who raise and fatten hogs.

There is no good reason why hogs cannot be raised and fattened at a profit, and I venture the assertion that one half of the hogs raised in Kansas do not pay the owners, ordinarily, over ten cents per bushel for the corn they eat, to say nothing about the time used in feeding them, as that is about all the care they get.

Is it not strange that a man will feed out corn to hogs by hundreds and perhaps by thousands of bushels and never stop to consider how much per bushel he gets for his corn in this way? But when he takes a load of perhaps 20 or 25 bushels to market, he is very particular about getting the last half cent that corn brings in the market. Does the successful merchant or manufacturer do business in this manner?

As rational human beings, let us spend a few moments of careful study on this very important part of our industries which to us as individuals, amounts to hundreds of dollars, to our State, millions, and to our Nation, untold wealth. We often hear farmers say, "what is the reason my hogs don't fatten better?" Nine times out of ten the farmer is more to blame than the hogs, although I am aware that in some cases it is as difficult to make a good hog out of some pigs as it is to make a good whistle out of a pig's tail.

It is common among many farmers of the West to keep their swine year after year in a small filthy pen. Nature's laws are so well defined in this respect that when a man who keeps his swine in such a manner, especially in the warm days of summer, asks why his hogs do not grow and fatten, simply shows an ignorance not justified by any one who claims to be an intelligent human being. Keeping swine in such a place on corn alone, and without exercise, is the surest way to completely destroy the assimilating powers and impair the digestive organs. The one who is successful in any branch of industry, must study the rules and laws that govern that particular branch. This answers a two fold purpose, for besides being skilled in, and master of his profession and able to more effectually compete with opposition in that particular branch, he becomes interested in his labors and they are a pleasure to him, while he who plods his weary way in the dark, sees not the bright things along his pathway, or the light of progress and improvement which burns steadily ahead of the diligent worker, but ekes out a miserable, aimless life, a very sample of the unfortunate man.

Exercise, cleanliness, and an abundance of food are necessary to secure success in swine raising, and in no way can we so cheaply and perfectly supply these, as to have good clover or blue grass pastures for summer where an abundant supply of clear fresh water can be had. If good clean fresh water is not to be had by springs or streams, it must be furnished in the trough. Swine will wallow in the mud, but not when there is clean water nearby.

BYRON BREWER.

Glenn, Johnson Co., Kansas.

Written Expressly for the Kansas Farmer.

WEEDS AND HOPPERS.

Mr. Hanway, in his Farm Notes for December 1st, says, that nothing was more common last spring than to hear the remark that "the locusts had destroyed all the cockle burs and other weeds which infest the corn fields, but that this consolation was only momentary, as the young corn grew after the hoppers had left" a fresh crop of weeds showed themselves—that there never was such a crop of weeds raised since the settlement of Kansas.

Now we will suggest that the weeds had not been destroyed at all—that they had not come above ground during the time of the

hoppers—that they had withheld through instinctive fear of destruction.

We were working in the ground during that time, and it was curious to observe the abundance of sprouted, writhing vegetation just below the surface, and it was remarked that as soon as the hoppers disappeared, vegetation would come forth, and so it did, not excepting the cockle bur (on the grounds of some—we don't have any on ours.) If this supposition is not correct, why would not that mass of weed seeds lying near enough to the surface, have sprouted, come forth and been destroyed during that month and a half of warm showery weather, and left the surface bare for the remainder of the season, or until the soil had been turned with the plow and more seeds brought to the surface? But it was not the case. On ground that was not stirred or plowed, the weeds came up as never before known. If this excessive growth had occurred only on ground that had recently been plowed, it might seem to have been from a fresh supply of seeds brought to the surface.

To strengthen our position we will state that we know, and all who have attempted to keep a piece of ground entirely clean, also know, that several kinds of vile weeds and grass, the more vile the more tenacious, which happen to come up late in the season a few days before a frost is to be, will hurry up and ripen seeds on very small growth. One kind of grass (don't know the name) which often grows two feet high, will ripen seeds under these circumstances, on stalks half an inch long; purslain will also. And the cocklebur will manage to ripen one bur on the top of a stalk not more than an inch long—will not wait to produce more, through fear of the frost that is to be within a few days.

Is not this instinct—more than instinct—prudence? Was it not instinct that saved the weeds from destruction by the hoppers?

L. BISHOP.

Oswattonic, Kansas.

OHIO SHORT-HORN BREEDERS.

At the meeting of this association at Columbus on the 4th inst., it was moved by Judge Jones that a system of Combined Sales should be inaugurated under the auspices and direction of the association, and the following rules were adopted.

RULES FOR THE REGULATION OF PUBLIC SALES.

1. Members of the association desiring to hold public sales, on application to the council can have the times and places for holding the same determined, and notice of such sales will be given in the annual report when the same is practicable.

2. The auctioneers conducting these sales must be approved by the council, and may be dismissed for dishonest or improper conduct.

3. The sales will be conducted in accordance with the obligations of honesty and good faith in all respects. The owners of stock will be required to make known any infirmity or defect as to health or fertility, that may be known to the seller, and not open to or discernible by the inspection of the purchaser.

4. If an animal is sold with a pedigree known to be false or spurious, or when there has been bidding for or in behalf of the seller, the sale of such animal will be void, and the persons guilty of such fraudulent practices shall be deprived of all benefits of membership in this association.

5. When an animal is put up for sale, the auctioneer will not be obliged to cry a bid that may be deemed grossly inadequate; but after the bid is entertained and cried by the auctioneer, there can be no withdrawal without the consent of the bidder, unless there has been notice of a reserve bid.

6. In case two or more members shall desire to unite in public sale, and shall be unable to agree as to any matter, in relation to the advertising or other expenses of the same, such matter shall be settled and arranged by the council of this association.

NORTHWESTERN DAIRYMEN'S ASSOCIATION.

The Tenth Annual Convention of the Northwestern Dairymen's Association will be held at Fort Atkinson, Wis., Feb. 8, 9, 10, 1876. The following are among the leading features of the programme:

On Tuesday evening President Favill's Annual Address, and Addresses by J. R. McLean, late President of Illinois Association, and Hon. Hiram Smith, President of Wisconsin Association, will be delivered.

On Wednesday the following topics will be discussed: Legal Protection Against Adulteration of Milk. Combining Other Branches of Farming with Dairying. Keeping up Supply of Milk in Summer Months. Butter Making. Cheese Making.

Oh Thursday: Making Butter and Cheese from Skim Milk. When, Where and How to Sell Dairy Products. General Management of Dairy Farm.

Competent and successful dairymen have been selected to open the discussion of each of these topics. Other topics of interest will be presented, and brief addresses are expected from well known men; also a paper by Mrs. F. C. Jones. Opportunity for free discussion will be given, and it is especially desired that the Dairy Farmers be present and engage in these discussions.

We see it stated in the Toronto Globe that eighty thousand sheep are reported killed during the past year, and an estimate is made that, as many are not reported, the whole number will be four hundred thousand. Need it be wondered that, in the South-west, where dogs do most abound, sheep farming is becoming a thing of the past. This is a reason why we here in the North-east, with hills and valleys, and a cool maritime climate, especially adapted for sheep, should increase our flocks. We don't think that payment should be made to farmers for loss, because that might tend to make careless shepherds; the owners of dogs that kill sheep are the proper parties to pay for them; but we do think that every dog in the country should be registered, and wear a collar with his number and owner's name.

The State of Minnesota produced last year 28,000,000 bushels of wheat, 15,000,000 of oats, and 12,000,000 of Indian corn.

Patrons of Husbandry.

NATIONAL GRANGE CO-OPERATION.

One of the largest co-operative undertakings of late has been the organization of the Patrons' Paint Company, with a paid-up capital stock of \$750,000. Upon nothing supplied the farmer has the percentage of profit hitherto been greater than upon paint. The present companies supplying it are rich, and refuse to make any compromise with the order. So, at an informal meeting of the Masters of the State granges, held at Louisville, while the National Grange was in session, it was resolved to incorporate a joint stock company and purchase the most valuable patents. The company was organized and incorporated, the Ingersoll Paint works were purchased, and the following trustees chosen: T. A. Thompson, Past Lecturer National Grange; D. Wyatt Aiken, Chairman of the National Executive Committee; Samuel E. Adams, Master of the Minnesota State Grange; Mortimer Whitehead, Master New Jersey State Grange; M. D. Davis, Master Kentucky State Grange; O. K. Kelley, Secretary National Grange; J. W. A. Wright, Past Master California State Grange; O. R. Ingersoll, Lecturer Knickerbocker Grange, and J. W. Naughton, Secretary Knickerbocker Grange. The main offices of the company are in this city at 259 Front and 32 Dover street. It is expected that when in thorough working order the business will reach \$5,000,000 yearly, and that the saving to Patrons will exceed 50 per cent.—N. Y. World.

SUCCESSFUL CO-OPERATION.

A grange co-operative store in Howard county, Indiana, started with a capital of \$1,000, paid up, each grange in the county voting directly out of its treasury fifty dollars and electing one director. The whole business was under the direction of the board, which selected an agent. In a little less than one year they report a business of over \$30,000 and a saving of at least 30 per cent., while the whole expense has been less than 10 per cent.

VIRGINIA.

Secretary Hazlewood's report says that the order has made flattering progress during the past year. Number of granges, 685; charter members, 15,589; present strength, 18,781; showing an excess of gains by initiation since organization of 3,194 over losses from all causes.

ALABAMA.

ATHENS, January 22.—During the past year thirty-two new granges have been organized, nine have been consolidated, twelve have surrendered their charters, and fifty-three have forfeited their charters, leaving 604 now in working order.

ARKANSAS.

The State Grange met in the hall of Little Rock Grange (13), Little Rock, January 4, Master J. T. Jones in the chair. In his address Brother Jones reviewed the history of the work and its condition during the past year, giving statistics relative to the business system during the past year. The Secretary's and Treasurer's reports showed the order throughout the State to be in good condition. The following was adopted unanimously:

Resolved, That notwithstanding the fact that the worthy Master of our State Grange has been promoted and called upon to preside over the National Grange, that we cannot dispense with his invaluable services in our own State, particularly at this time, and that we earnestly call on him to retain his present position of Worthy Master of this State Grange, and not to resign the same. That we tender our heartfelt thanks to him for his untiring work for our cause in the past, and hope that our request for further labor and sacrifice in the same great and noble cause will not be regarded as unreasonable or be refused.

GRANGE REFORM.

We present below the leading editorial of the *Patron's Helper* of the 4th inst. It reflects the sentiments which the FARMER long ago expressed. Coming as it does, from such high authority no one can doubt its loyalty to the true principles of the Order.

"An important question likely to agitate the grange at no distant day is that of government. Even now there is great dissatisfaction felt, and as time passes the National Grange must recede from its present position or be swept aside. We speak advisedly. The time was when we felt that the members might slip out and the whole structure fall to pieces; but now it looks as if patrons meant to preserve their organization, and to remove from it all impediments and all crudities. We call attention now to the system of government as a thing which needs and will soon have a change. At present, the subordinate granges elect their masters. These masters and their wives who are matrons, (but whom the subordinate granges did not elect, worthy though they may be) constitute the State Grange. The State Grange makes laws for itself and the subordinate granges, and from its own ranks elects its masters and other officers. State masters and their wives who are matrons (but whom neither the subordinate nor the State Granges elected, and who were chosen on quite other and distinct grounds) constitute the National Grange. The National Grange makes laws for itself and for the State and Subordinate granges, and out of its own ranks elects its master and other officers. So far there is a semblance of representative government, because the masters are elected by their constituents; but, beyond this, there is a secret society or private organization among the masters of State Granges, styled the Seventh Degree grange, which may or may not act as a secret caucus to cut out work for us all, to

make slates and generally to ruin the machine.

Now, to make this picture a little more vivid, let us suppose that our county, State, and National governments were run on the same plan: The people elect county supervisors. The county supervisors, with their wives, meet and elect, from their own number, members of the State Legislatures. The State Legislatures meet, and from the list of county supervisors and their wives, no others being eligible, they elect the Governors, Secretaries of State, Treasurers, Supreme Judges and other State officers. Then the Governors and their wives, who may be the wisest women in the universe or the most foolish, but on whose qualifications neither the people, the county supervisors nor the State Legislatures have passed judgment, meet in Congress, elect the President, vice president and cabinet, as well as their own officers, and proceed to pass laws for themselves and the people under them. Suppose, further, that these Governor-members-of-Congress form a secret society among themselves, to which they admit only such as those in the ring choose to admit, that the president and other officers are also members. What would be the effect? Would it be a representative government? Would the people who are governed have any guarantee of good government? But, further, suppose the secret ring has the power of impeachment, trial and removal of the President and Cabinet officers, Congress of the Governors of States, and the State Legislatures of county supervisors, but the people have no power at all over these who should be their servants, but who really become their masters. What then? Why, then the probability is that the people will kick out of the traces, that those newspapers which have the real good of the people at heart will call attention to the anomalous condition of things, even though they may be called disloyal for their faithfulness, and that by and by there will be reform. The farmers are very patient, but they won't stand too much nonsense from any source."

ADVERTISEMENTS.

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

SEED CATALOGUES FREE. All about FLOWERS and VEGETABLES. BEST SEEDS in the world; sure and large packets; low prices. Books, Papers and Chromos as premiums. Address COLE & BROTHER, Seedsmen, Peoria, Iowa.

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PUBLIC SALE

SHORT-HORNS

OTHER PROPERTY

Oak Hill Farm, Kellogg, Jasper County, Iowa.

On Thursday, March 23d, 1876. I will sell my entire herd consisting of 100 head of Short Horns and over 100 head of Berkshire breeding sows. And on FRIDAY, MARCH 24th, I will sell about 300 more of breeding and stock hogs, 40 head of grade cattle, 11 head work horses and mules with all machinery and tools on farm.

Terms of Sale: Twelve months time with interest. Five per cent. off for cash. My farm is offered for sale, and will be rented by the first of March if not before that time.

The sale of one hundred head of Short-Horns by M. L. Devin and others, at Des Moines, Iowa, will be held on Wednesday, March 22.

M. BRIGGS, Newton, Jasper County, Iowa. Catalogues sent by him or Alex. Charles, Cedar Rapids, Iowa.

CARPENTERS Now is your time to make money with the ADJUSTABLE THRESHOLD, and Weather Guards. Send for Circular. WILSON, PEIRCE & CO., 182 Clark St., Chicago.

BURKHARDT & OSWALD, Manufacturers of HARNESS, SADDLES, COLLARS, BRIDLES, HALTERS, WHIPS, etc. This establishment is one of the oldest in the State. Good work for reasonable prices. Prices sent by mail to persons living at a distance.

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SEEDS. SEEDS. Growth of 1875. By Mail. Alaska Clover Seed, per lb. \$.50. Ex. Close Ry. Blue Grass, " .50. White Dutch Clover, " .50. Cen. Park Mixed Lawn Grass, " .50. Best Red Wintered Oats, " 2.00. Best White Wintered Oats, " 2.00. Send for Price List of Fresh Garden Seeds. By Express, purchaser paying charges at 15 cents per lb. less.

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A CHEAP LITTLE FARM! To some men of small means who would rather own a little home than work rented land, I offer a little place of 40 acres of choice limestone land, with small log house, good well, few fruit trees, breaking and fencing done by good school. Grange and regular church service, convenient to stock range and water, timber, P. O., flouring and saw mills, and only 35 miles from Topeka or Lawrence.

Title perfect. PRICE: \$450. Good cows and young cattle taken. F. D. COBURN, Pomona, Franklin County, Kansas.

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The best, only complete, and reliable instrument for the treatment of Asthma, Catarrh, Sore Throat, Bronchitis, and diseases of the lungs and air passages generally. Price, \$2.00; 6 and \$3 each. For pamphlet, etc., address: FOUGERA & CO., 30 NORTH WILLIAM ST., NEW YORK.

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Buy direct from the Grower, postage or express paid, and get fresh, true and reliable seeds. I can and shall beat any firm in America in quality and low prices. Beautiful Illustrated Seed Catalogue and Garden Guide free. Special prices to Gardeners. Address, R. H. SHUMWAY, Seed Grower, Rockford, Ill.

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Bred from the most approved strains of Imported Stock, selected from the best Herds of England and Canada. PIGS for sale at reasonable prices. Address, JOHN M. JAMISON, Roxwell, Ross Co., Ohio.

Florida! Florida!

MAITLAND GRANGE assures all Patrons wishing to locate in Orange County, that they may be kindly cared for, and amply assisted in selecting a home in our midst. Her members are scattered over a large area of the best part of the county, which is now rapidly settling up, and the object is to protect immigrants to our section from imposition. Address V. E. LUCAS, Maitland, Orange County, Florida.

A Great Offer

THE WEEKLY CHAMPION, \$2 per year, and THE KANSAS FARMER, \$2 per year. Both papers sent postage paid one year for \$2.75. Address, "CHAMPION," Atchison, Kansas, or "KANSAS FARMER," Topeka, Kan.

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Literary and Domestic.

EDITED BY MRS. M. W. HUDSON.

CARE OF PHYSICAL HEALTH.

We are having another cold snap, after the warm, almost Indian summer weather, which seems to have been very general during, or a little before the holidays, and we feel it very sensibly. I wonder when we will also feel very sensibly, the importance of dressing ourselves and children according to the weather. When a few warm days come and our winter clothes are really uncomfortable, why not remove a portion of them until the cold increases again? Instead of overheating ourselves in what will be no more than comfortable when the mercury is twenty degrees lower? Women must learn to take care of themselves. Put something around you when you run out of doors or down cellar, and put on a warmer dress or something about the shoulders, when after vigorous exercise you sit down to sew or read. A new friend of women, has appeared in the form of suspenders, similar to those worn by men, except that they are furnished at each end with a hook or safety pin, to which you can attach any number of garments; and never a button to sew on, never a button hole to work. Some few women do have their clothes supported by some improvised arrangement. But many more are dragging out a miserable existence, and don't know that what ails them is that their shoulders are shirking one very important burden which they ought to bear. If you should visit a good museum and see some specimens of healthy natural bodies, compared with those having distorted spines, compressed chests, lungs half their normal size, livers lying with their greatest length perpendicular to the body instead of horizontal as it should, and the other contents of the abdomen so misplaced and forced down as to be scarcely recognizable; if you could see this, it would have a powerful influence towards enlisting you against those giant enemies, *corsets* and *non-supported skirts*. But suspenders are so uncomfortable, and so much trouble. Certainly all changes whether for better or worse are unpleasant to some people, but are they more discomfort than the ill health which their absence causes? You feel "all gone," and as if you could neither sit nor stand without your corset. Of course you do, for the muscles which should support your back and chest are as lifeless and weak, almost, as those of your arm would be if you had carried it in a sling, all these years that you have imprisoned yourself in a corset. If you cannot give them up yourselves, do teach your daughters to do without them, that they may not grow up to be invalids and constant complainers, who are no comfort either to themselves or their friends.

About two years ago the Women's Medical College, of Philadelphia, Pennsylvania, received a legacy of \$60,000, and immediately built a new college, almost adjoining the old one, in the northwestern part of the city, just north of Girard college.

It is not at all an imposing or over handsome building; brick, with trimmings of light stone. But it contains every conceivable convenience and comfort of heat, light, ventilation and water all through it. Spacious halls and stair-cases, comfortable and commodious cloak-rooms, and lecture rooms; an interesting and valuable, though small museum; and most complete dissecting-rooms, and laboratory.

This winter there are about sixty students in attendance. Several nationalities are represented; and I presume, many denominations, as there were several plain drab bonnets, and one little Shaker with her somber uncomfortable looking black.

The old college is now used as an infirmary and thus relieves many poor women and children, and at the same time gives students an opportunity to see and become familiar with operations and treatments, such as they will have to apply in every-day practice.

One poor woman was wheeled into the lecture room, on a little iron bedstead, and found to have her shoulder out of joint.

The case was fully explained to the students by the Professor, while an attendant, and a motherly little nurse administered morphine; and then in less time than it takes to tell it, and by a perfectly painless operation, the joint was reset, and the woman was wheeled out.

The next poor soul had not seen the blessed sunlight for eleven years, the sight being obstructed by cataracts. The skillful surgeon however inserted a speculum to keep the lids from closing, and with another instrument firmly held a muscle to prevent any movement of the eye, while with his delicate knife and more delicate scoop he removed what was once a beautiful chrysaline lens; but now was perfectly opaque. Immediately she was out of the long long night, and it was day. She could even count the surgeon's fingers as he held them before her, though her eyes of course were very weak.

The surgeon then explained that, though her sight was restored it would be imperfect, as the lens, whose office it had been to refract the rays of light, and enable her to see objects at either side as well as in front of her, and to adjust the eye to different distances was gone.

And as soon as her eyes were strong enough he should select glasses for her, which would in part supply the defect.

Viewing these, and other examples of disease, and vice and misery and crime, which are neither pleasant to encounter, relate, nor

contemplate, reassures us, that the abuse of physical health is a degrading, pernicious and besetting sin, of the poor, often from necessity or ignorance; of the rich, not from necessity, but, alas from ignorance and pride. Why do we so neglect the injunction to know ourselves? Why expect mental health, when we neglect to study, understand, and keep in order the beautiful, wonderful and complex organism with which we are furnished and expected, as one of our first and most important duties, to keep in health, and the highest possible perfection?

Indeed, I fear we do not appreciate the importance of this increasing band of earnest intelligent, conscientious women, who are, many of them, plainly appareled in the midst of affluence and fashion, that they may be enabled to fit themselves to minister to their sisters during affliction and disease, as well support themselves by an honest and honorable profession, which has too long been practiced alone by men. But to which every noble, and true man is ready to welcome them. But not alone as physicians will they benefit the race, but as women, as mothers who know how to protect and improve their physical health, and by so doing promote both mental and spiritual growth.

Jan. 8th, 1875.

SQUARE OUT.

We have no time in the rush of an opening term to write editorials, and instead thereof propose to say to the owners of this Institution—the people of Kansas—precisely what we would say to our most intimate personal friends concerning its present condition:

In September 1873 the policy of giving an education for the direct benefit of the industrial classes, as distinct from the education framed for the direct benefit of the industrial classes, was adopted. The execution of this new policy necessitated radical changes in the course of instruction, which were rapidly made. Against these changes it was urged, in many quarters and by many thoughtful persons, that the policy was an experiment; that the departure from the paths of professional education was too great; that manual skill in agricultural operations, and, especially, in the trades, could not be taught in a college; and similar objections. We admitted that the policy was an experiment, and have never claimed anything else. We knew that the changes had to be radical, because, as we looked at the problem, it was an absurdity to expect that an education which has a cash value in the practice of medicine could have an equal cash value in the practice of agriculture. Prescribing pills and raising potatoes require different kinds of knowledge and skill. There are hundreds of colleges and universities in the United States that will prepare a student for the berth of deputy sawbones in a medical school; and we proposed that this College should teach that knowledge and skill which the farmer or mechanic uses. The tempest-tormented excited by this determination never bothered us a particle. We believed we were on the right track to a thorough and practical industrial education; and that was the point to which Congress ordered this Institution to go.

It is now two and one-half years since this experiment was put to the test. We have watched it closely and ceaselessly. It is different from that tried by any other institution in the United States in two particulars: first, the sciences are more absolutely shaped with respect to the value of their truths to the industrial workers; second the manual skill, essential in the several industrial vocations, is more directly and practically taught. From Maine to California the Kansas Agricultural College policy has excited an interest among educators, and especially farmers, greater than that created by any other educational system during a similar period.

We now wish to say that, in our belief, this policy is no longer an experiment; it is a fact fully proven to us, and one which, with essential facilities, we will undertake to prove to the satisfaction of any member of candid jury. We have never said that before, because, though confident as to the result, we had not fairly tested the new methods; but now, on the strength of the facts which have been developed in the last two months, even under the disadvantages of half-equipped departments and scarcity of room, we are ready to say to the State of Kansas, or to any other State, that with just such facilities as are found on any good farm and in any shop run for profit, the matter of giving an education that is worth more money to the farmer or mechanic, than the ordinary education is worth to the lawyer or doctor, is a thing as easily done as is the latter. We do not say that this Institution is yet able to demonstrate every point of this general proposition; because, first, it has not had the necessary time; and, second, it has not the needed tools—without which a demonstration is impossible. Our meaning may be better stated as follows: We would be personally willing to enter into a contract, with responsible sureties by both parties, to furnish any State, providing the necessary facilities, with an Agricultural and Mechanical College which should give an industrial education that would be accepted by any number of judges appointed by the practical farmers and mechanics of that State. In other words, agricultural colleges can be made to do their work just as effectively as West Point is made to furnish a military education.

But if Kansas thinks that such a result can be brought about, in any reasonable time, by an institution, without suitable buildings, tools and apparatus, on \$10,000 a year, it is as badly mistaken as a boy who thinks he can make money by boring two-inch auger holes with a gimlet. One dollar won't pay for three dollars' worth of grain.—*Kansas Agricultural College Industrialist*.

SENATOR INGALLS ON HENRY WILSON.

At the time set apart for the delivering of eulogies on the late vice president, Senator Ingalls of Kansas made the following address. We take it from the Congressional Record of January 22.

Mr. President, it has been common to allude to the history of men like Henry Wilson as peculiarly American, and to declare that such careers are possible only under republican institutions. Nothing could be further from the truth. The world has had few leaders who were born to an inheritance of power. Its real kings have not been the sons of kings. Its acknowledged monarchs have not descended from monarchs. The founders of its philosophies have not been the children of philosophers, nor of its dynasties the heirs of

emperors. The framers of the creeds, the inventors of the faiths and religions of the human race have come from the manger, the forge, the carpenter's bench, and not from the church. The great leaders of its armies have not sprung from warriors; and those who have written the dramas and pronounced the orations that are immortal have not inherited their passion nor their eloquence. A pedigree may be gratifying to pride, but it is not consoling to ambition.

The choicest products of nature are developed in her valleys, and not on her summits; and in the lower social strata we find the origin of the most successful men.

In the profession of public affairs or statecraft, it may be that the operation of this universal law is more apparent under a political system like ours, where the hard restrictions and limitations of custom, precedent, and conventions do not prevail; but our history gives ample illustration of its truth. To discriminate among the living would be ungracious, but if we inquire who the illustrious servants of the Republic in the past have most effectively stamped their ideas and purposes upon the institutions and irrevocably shaped the destinies of the nation, the answer would designate those who had not been favored by birth or fortune. Jackson and Lincoln among the presidents, Webster, Clay and Douglas among the statesmen, are imperishably associated with the first century of the Republic. Emerging from an obscurity more profound than either of these and reaching an elevation that gives him a permanent position in our history, Henry Wilson demands to-day the last formal recognition and tribute that his country can extend to his acts and his fame.

The story of his life has been told by his successor, whose powerful delineation of his character and services has left nothing to be recounted save the lessons of his marvelous career.

It is perhaps not too much to say that he succeeded less in spite of his disadvantages than because of them. The defects of his training and scholarship, the laborious poverty of his youth, the humble avocations of his early manhood, were favorable to his fortunes. They kept him on a level with the masses of the people and enabled him to interpret their purposes with prophetic accuracy. It was by reason of this that he became a popular orator without being eloquent, that he became a voluminous author without the advantages of parliamentary education, that the men of Massachusetts ignored their patricians and sent their Natick cobbler to the Senate, and finally to die in the Capitol of the nation.

He possessed in an eminent degree that peculiar assemblage of physical, mental and moral qualities that are requisite to political success in a popular government. He was from and of the people pre-eminently; not alienated from them by extraordinary endowments or great wealth or superior culture, but exhibiting a higher degree or a more vigorous activity of the virtues and powers that are common among men, industry, diligence, patience, and scrupulous integrity. So that the great body of citizens in supporting him seemed to be indirectly paying a tribute of respect to themselves, and not yielding either a willing or reluctant obedience to a superior or ruler.

But no public man, whatever may be his qualifications, can succeed unless he identifies himself with some idea or conviction existing in the minds of the people. He who would lead must follow. And in this respect the vice-president was especially fortunate. He entered public life at the commencement of that great revolt of the national conscience against human slavery, and thenceforth he exerted all his energies to its extinction. He became one of the great exponents and representatives of this idea. It gave form, substance and complexion to all his efforts. He mastered its statistics, defined its purposes, and in the great contest that followed he bore a notable and conspicuous part. He gave expression to the resolve of the loyal millions that in the country of Washington the creed of human liberty should not be an unmeaning formula nor the brotherhood of man an empty dream. This is the measure of his work and its reward.

THE CONTAGION OF SCARLET FEVER.

Since none of our common diseases is more dreaded than scarlet fever, it is important to know what can be done to prevent its diffusion. To this end the following conditions should be observed: Let the patient be assigned an upper chamber freely ventilated, comfortably warm and reasonably cool. There should be no carpet on the floor, no curtains about the bed, and no cushioned, and upholstered chairs or sofas. Use an iron bedstead, and if possible let the bedding be destroyed by fire as soon as the patient is so far recovered as to mingle with other members of the family. The handkerchiefs which he has used should be burned. It is better to furnish bits of old cotton or linen in place of handkerchiefs, that each piece as soon as soiled may be removed and destroyed. The spittoon, or other vessel which receives the expectorations, should contain a little water with carbolic acid or chloride of lime. One or the other of these disinfectants must be used freely about the room. An indispensable article for the comfort of the patients is an earth-closet. There are several kinds in use, but as far as we have observed the simplest and cheapest is the best. Common garden soil, perfectly dry, should be used, or sifted coal ashes. Either of these substances will readily deodorize the intestinal discharges. A small quantity of sulphate of iron—copperas—if added to the soil or ashes, will serve as an excellent disinfectant.

Nurses and others who come in contact with the patient should frequently wash their hands with carbolic soap. Clothing taken from the patient, if not burned, should be allowed to remain in water containing one of the above named disinfectants two or three days before being washed.

These simple suggestions, if followed, would result in a greatly decreased number of cases of scarlet fever; and if the means proposed were generally adopted, we believe that in a short time the disease would be effectually "stamped out."

We are aware that in many families the course we propose is impracticable. They have not the room, nor the means. But they can follow some of our directions. They can ventilate the sick-room and use disinfectants. It is possible that physicians, in treating this disease, neglect, sometimes, an important part of their duty. They do not enforce, as they ought, the simple regulations by which so much may be done toward destroying the contagion.—*Hall's Journal of Health*.

The memorial of 23,626 women of Utah to Congress prays for the repeal of the anti-Polignac law of 1862, also the act known as the Poland bill.

ADVERTISEMENTS.

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

Clarks' Anti-Bilious Compound

Never fails to give a good appetite. It purifies the blood, and restores to the liver its primitive health and vigor. It is the best remedy in existence for the cure of Dyspepsia, Loss of Appetite, Sourness of Stomach, Sick Headache, Chronic Diarrhoea, Liver Complaint, Biliousness, Jaundice, Consumption, Scrophulous, Catarrh, Rheumatism, Erysipelas, Salt Rheum, Fever and Ague, General Debility, Nervous Headache, and Female Diseases.

A REWARD

Was, for three years, offered for any case of the above diseases which could not be cured by Clarks' Anti-Bilious Compound. It is sold by nearly every druggist in the United States. Price \$1.00 per bottle.

R. C. & C. S. CLARK, Cleveland, Ohio.

SEEDS

Blue Grass Seed.....\$1.50 bu.
Extra Clean Blue Grass Seed.....3.00
Orchard Grass.....8.00

"No charge for packing or delivery at Railroad or Express Office here."
My Illustrated Seed Catalogue with handsome colored plate will be mailed on receipt of 6 cents to pay postage.

Address: JOHN KEEN, 211 Market-St., St. Louis, Mo.
"State where you saw this advertisement."

FINE TEAS

FIRST COST.

Get your Tea direct from the Importer at first cost and free from adulteration.

English's Pure Teas.

All kinds, put up in airtight lined patent boxes, 1 lb., 2 lb., 3 lb., 5 lb., all first grade Teas, perfectly pure and free from adulteration. The sale of these fine Teas now extends to every village and town in the Union. I will supply families direct at the following prices—all first quality—express or postage prepaid:

1 lb. box.....\$0.80 5 lb. box.....\$3.00
2 ".....1.35 8 ".....4.75
3 ".....2.00 12 ".....6.75

These prices are for the Teas delivered to you without cost of carriage. Remit money with the order. 10 lbs. and over can go C. O. D. Make P. O. orders payable at Station D, New York.

Address: WILLIAM ENGLISH, Importer of High Grade Teas, 340 East 16th St., New York.

Very few stores keep these fine Teas; no storekeeper could possibly sell this quality at these prices. All goods shipped same day order is received, express or postage prepaid. Every box is sealed and bears my trade-mark and signature.

Please state you saw this in the KANSAS FARMER.

ROSE

Plants, etc., sent only by mail 3000 miles, postage free 1 1/2 cents. \$1.00, 25 Varieties, \$1.00, 15 Baskets, or Bedding Plants, \$1.00, 10 Geraniums, \$1.00. A 72 page Catalogue, free. 100 other things, cheap. 25¢ all sorts of Fruit and Ornamental Trees, Shrubs, etc. A 64 page Catalogue, free. 25¢ year, 40¢ extra. 12¢ postage. STORRS, HARRISON & CO., FAIRFIELD, Ct.

"DOMESTIC" SEWING MACHINES.

Liberal terms of Exchange for Second-hand Machines of every description.

"DOMESTIC" PAPER FASHIONS. The Best Patterns made. Send 5 cents for Catalogue. Address DOMESTIC SEWING MACHINE CO., 67 AGENTS WANTED. NEW YORK.

D H B

BROTHER PATRONS:—Now is the time to save money by sending to us for your GROCERIES, DRY GOODS, WAGONS, MACHINERY, or ANYTHING you may want. Also, ship us your COTTON, TOBACCO, GRAIN, etc. Best prices obtained and charges least. We are now making a specialty of this business for you.

DOLTON BROTHERS, 214 N. Fifth Street, ST. LOUIS, MO.

SEEDS, SEEDS

Pure, Fresh and Reliable. CRUSMAN BROS. will send their beautifully illustrated Catalogue containing a magnificent COLORED PLATE to any Address FREE. CRUSMAN BROS., (Incorporated) Rochester, N. Y.

SEEDS

Market Gardeners and all wanting Fresh and Reliable SEEDS, send to W. J. ELLINWOOD, 66 Washington St., Chicago. Catalogues how ready, German and English.

A. J. THOMPSON & CO., GENERAL Commission Merchants,

FOR THE PURCHASE AND SALE OF Grain, Seeds, Hides, Green and Dried Fruits, Butter Eggs, etc. Particular attention given to Flour. 192 S. WATER STREET, CHICAGO.

A. HOUSTON & CO., State Agency

Patrons of Husbandry of Illinois. For the sale and purchase of Farm Products, family supplies, and Farming Implements, No. 304 North Commercial St., ST. LOUIS, MO. Consignments of GRAIN solicited.

100. Centennial Clubs! \$50.

For 1876 THE AMERICAN RURAL HOME will pay CASH: For 50 subscribers at \$1.00 each (including postage), \$25.00. For 100 subscribers, same rate. \$50.00. Remainder commission when you remit. Small clubs in liberal proportion. First-class, 8-page Rural Weekly. Send for specimen and full particulars (free). Address THE Rural Home, Rochester, N. Y.

100. Centennial Clubs! \$50.

Special Offer to Subscribers of the Farmer.—We will send the FARMER and YOUNG FOLKS one year to any address, if ordered during January, for \$2, thus giving the YOUNG FOLKS free to single subscribers.

ORANGE COUNTY STUD BOOK.



GIVES THE HISTORY OF ALL STALLIONS OF note raised in Orange Co., N. Y.; the system of breeding colts by the best breeders; the author, a native breeder of Orange county of over twenty years' veterinary practice, gives his great secret of locating disease or lameness with as much certainty as if the horse could speak. His recipes and celebrated cures for crib and wind suckers, spavin and ringbone, quarter-cracks and hoof-bound horses, poll-evil, fistulas, founder and splints, contracted hoofs, scratches, worms, broken knees, blind staggers, distemper, wounds, thrush, heaves, stiff shoulders, and stringhalt; how to make an old horse appear and feel young; to give him a sleek and glossy appearance; to put a star on his forehead, or to spot him like a circus horse; to properly shoe a horse; to make a diseased and unsound horse appear sound and kind; to feed when he has lost his appetite; to tell his age; to make slow horses fast and fast horses faster; to break a horse from rubbing his tail; how to cure all diseases the horse is heir to. It should be in the hands of every owner and breeder, as Orange county is the nursery of good horses. It is worthy of a large sale.—*Middleton, Orange Co., N. Y.* Mailed 3 copies for \$2.50. Address DAVIDSON & CO., P. O. Box 2,996, 36 Nassau St., New York.

All About Gardening

For HOME use and for MARKET in ROOT'S GARDEN MANUAL—practical, pointed and thorough—containing one-half as much matter as \$1.50 books on the subject. Gardeners throughout the country commend its practical labor-saving methods as invaluable to them. Sent for 10 cents, which will be allowed on the first order for seeds. J. B. ROOT, Seed Grower, Rockford, Illinois.

WHITNEY & HOLMES

ORGANS

FIFTY ELEGANT STYLES, with Valuable Improvements. New and Improved. Sole Agents for OVER ONE THOUSAND Organists and Musicians endorse these Organs and recommend them as strictly First-Class in Tone, Mechanism and Durability. Warranted five years. Send for price list. WHITNEY & HOLMES ORGAN CO., Quincy, Ill.

POCKET INHALER

CARBOLATE OF IODINE INHALANT

A sure Cure for Catarrh, Bronchitis, Asthma, and all diseases of the Throat and Lungs—even Consumption if taken in season. Physicians endorse it as the most perfect and efficient Inhaler ever introduced. Write your address and receive our descriptive circular, and testimonials of hundreds of Physicians who have used it in their practice. We send Inhaler, with Inhalant, for two months' use, free by mail for \$2.00. Send no money.

W. H. SMITH & CO., Prop's, Buffalo, New York.

Beckwith Double Thread Sewing Machine,

FOR HAND OR TREADLE. ONLY \$25. Makes Lock-stitch. Will not rip or ravel. Does all kinds of work. Fully Warranted. Address for descriptive Circular, WM. H. JOHNSON, State Agent, P. O. Box 765, Topeka, Kansas.

Agents Wanted.

To Stock Breeders, Merchants, Millers, Bankers, etc., etc.

Do you want Engravings of Stock? Do you want Engravings of your Business Houses? In the Engraving Department of the KANSAS FARMER we are now executing, in the best of style, from Photographs, all kinds of work at reasonable prices. If you wish an

ANIMAL PICTURE

made, or the front of your building Engraved, for use in Advertising, on your Letter Heads, Cards or Envelopes, write the size you want the Engraving, and prices will be forwarded you by return mail, with specimens of Work.

J. K. HUDSON, Topeka, Kan.

OSAGE ORANGE

Largest Stock, Best Seed, Lowest Prices. For particulars, address PLANT SEED COMPANY, Saint Louis, Mo.

GRAPE VINES.

LARGEST STOCK IN AMERICA. Extra quality. Reduced prices. Price list free. T. S. HUBBARD, Fredonia, N. Y.

HOME-GROWN GARDEN SEEDS

I OFFER FOR SALE a limited quantity of pure, fresh, Kansas Grown Tomato Seed, Canada Victor, Hubbard's Curled Leaf, Hathaway's Excelior, and Trophy. Ten Cents single packet, or Twenty-five Cents for three packets, to one address, post-paid. Plants of same varieties will be for sale after April 20th. W. D. GOSSETT, Topeka, Kansas.

TRIUMPH RUPTURE CURE.

384 BOWERY, N. Y.

The Triumph Truss Co. ask no advance payment for curing Rupture, and offer \$1000 Reward for any Case they cannot Cure.

They employ a first-class lady Surgeon. Their chief Surgeon has had 30 years' unflinching success. Examination and advice confidential and free. Orders filled by mail or express. Send stamp for descriptive pamphlet to Dr. C. W. H. BURNHAM, General Superintendent.

C. G. FOSTER,

Journalist & Special Advertis'g Agent

409 West Randolph St., CHICAGO, ILL.

KANSAS AND THE CENTENNIAL.

The State Centennial Managers have issued a report of their plans and labors up to January 1st, 1876. That Kansas should be properly represented at the Great Inter-National Jubilee, that she may be present in all her youthful strength and vigor, to present to the Nations of the world as well as the States of this broad country her peaceful victories and her resources, must be the earnest wish of every patriotic citizen.

From the report of the Managers we give the following extract:

We doubted the possibility of making a captivating representation in the general buildings. By their classification, our products must be grouped with their kind from larger States and nations. However superior in quality, they might be swallowed up in the larger display of wealthier nations. Our success in inter-State contests heretofore, has arisen from a genius for arrangement and ornamentation, as well as from the merit of our products.

We directed our President, accompanied by the Vice President, to visit Philadelphia and secure the privilege of arranging our display in our own way. Failing in this, they obtained permission to erect a Kansas building, and selected a site. Ours was the first application. Thirteen States have since selected locations, and are preparing to erect similar buildings. Mr. E. T. Carr, of Leavenworth, architect, has generously furnished plans and estimates for the Kansas building, free of charge. The building proper will cost about \$5,000. It is safe to add \$2,000 more for fitting up its interior, and providing gas, water and drainage. The two railroad companies participating with us propose to bear a part of this expense, proportionate to the space they will occupy. At the close, its sale will cover some portion of its cost.

The building is designed in the shape of a Greek cross. Its plan, elevation, and other details, are submitted herewith.

Instantly as the Exposition grounds are two and a half miles from the central portions of Philadelphia, and will be closed at night, the necessity of a "down-town office" has received some consideration. It would be city headquarters for the State Commission, or such of them as shall be on duty, and also for all Kansas visitors. Exhibitors, and others having business with the Commission or desiring information, would know where to go at any and all hours. All desirable information as to hotel and boarding-house accommodations could also be sought and imparted—necessarily a convenience in a crowded city.

We have gone only to the extent of devising the plan, and lithographing and selecting the site for the building. We had been led to believe, and have given it to be understood, that the plans here indicated would be carried out. They were laid frankly before the Centennial Committee of the last Legislature, and the appropriation was then made on the basis of the necessity of the further expenditure that would be required. That appropriation, thus made, was an encouragement to go on with the plan proposed. We have, therefore, neglected to apply for space in the general buildings within the time limited.

We feel assured the project of a separate building will meet the approval of the law-making power. It will enable Kansas to preserve her identity, indulge her individuality, enlighten public judgment, and secure success. In our own building we can group and blend the products of nature and art for scenic effect; the interior ornamentations adding effect to the merit of the collections, will excite universal comment, and make the Kansas Headquarters a place to be sought and admired. The music and flags, to be furnished by the ladies, can there be used with advantage.

Maps, large and small, should illustrate the counties to which the products are to be credited, and should indicate the route thereto. An immigration pamphlet on Kansas should be on hand for free distribution in large quantities; it should be prepared with care, and published in more languages than our own. The supply of these should be equal to the demand; it would be made up from maps and data already electrolytically printed, the plates of which are owned by the State. We have made estimates for such a pamphlet, and its cost would be comparatively small.

To carry out these plans to the best advantage, an early appropriation is desirable. It will be necessary to enter with renewed energy upon the completion of our collections for those counties that have disappointed us. The right men should be put in the field at fair wages. The display has to be planned to correspond with the space, and this cannot be done until we know, from the amount of the appropriation, what the character of our exhibition is to be. As the Exposition opens on the 10th of May, the building should be ready for the reception of goods by the 1st of April.

"A penny saved is two pence earned." Uncle Sam's Harness Oil preserves the leather of harnesses far better than any other preparation ever made. Its use will save many dollars yearly in the wear and tear of harness.



Best; better; burn less fuel; give better satisfaction, and are the standard Stoves of the day.

Extension Top Stove, with High or Low Down hearth.

EVERY STOVE WARRANTED.
BUCK'S
Guarantee,

For Coal or Wood, are the only Soft Coal Cooking Stoves that always give perfect satisfaction. They Bake, Boil and Roast equal to any Wood Stove; are fitted with our Patent Chilled Iron Linings, which last as long as any five sets of ordinary linings. Their operation is perfect.

Extension Top, with High or Low Down Reservoir. We also manufacture Ranges of all kinds, and all kinds of Plumber's Goods &c.

Buck & Wright,
720 and 722 Main Street, St. Louis. Manufacturers of varieties of Cooking and Heating Stoves. Sample Cards and Price Lists furnished on application.

Farm Stock Advertisements.

In answering an Advertisement found in these columns, you will confer a favor by stating you saw it in the KANSAS FARMER.

NORMAN HORSES



Have made the Breeding and Importing of Norman Horses a specialty for the last 20 years have now on hand and for sale 100 head of Stallions and mares on terms as reasonable as the same quality of stock can be had for any where in the United States. Send for illustrated catalogue of stock.

E. DILLON & CO.

SHANNON HILL STOCK FARM.

ATCHISON, KANSAS.
Thoroughbred Short-Horn Durham Cattle, of Straight Best Blood Pedigree, Bred and for sale.
Also Berkshire pigs, bred from imported and premium stock, for sale singly, or in pairs not taken.
Address: **GLICK & KNAPP.**

P. S. Persons desiring to visit the farm, by calling on Mr. G. W. Stubblefield in the city of Atchison, will be conveyed to and from the farm free of charge.

G. W. STUBBLEFIELD & CO.,



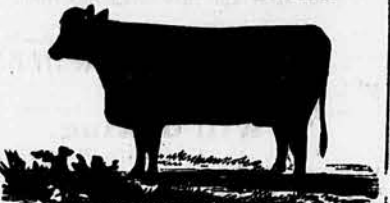
Importers and Breeders of
Norman Horses.
Office with Aaron Livingston, Bloomington, Ill.
Imported stock for sale on reasonable terms.
Address, Shirley, McLean Co., Illinois.

N. H. GENTRY,
Sedalia, Missouri.
BREEDER AND SHIPPER OF

Thoroughbred Berkshires.

CORRESPONDENCE SOLICITED.

Bourbon Park.

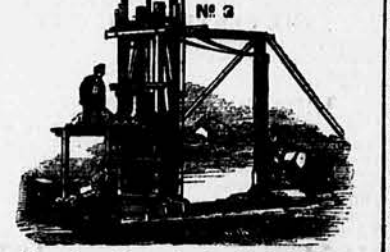


D. A. ROUNER,
Eight miles west of Newark, Missouri, Breeder of
SHORT-HORN CATTLE,
Berkshire Hogs, and
Long-Wool Sheep.

The Herd embraces Young Mary's, Young Phyllis, Galatea, Rose Buds, Rose Mary's, Lady Caroline, Deedemias, and other good families. **RED DUKE** 4219 S. H. R. at head of the herd. Correspondence solicited.

THE PREMIUM HAY PRESS

THE UNITED STATES.



The Premium Press in the United States,
ESTABLISHED IN 1867
NEARLY 1,000 IN USE.

This Press is warranted to compress Hay so tight that ten tons can be shipped in a railroad box car. Manufactured and for sale by
GEORGE ERTEL, Quincy, Ill.
Send for circular.

\$25 A DAY

We warrant a man \$25 a day using our **WELL AUGER AND DRILL** in good territory. Descriptive book sent free. Add. J. H. Auger Co., St. Louis, Mo.

POLAND CHINA PIGS.



S. H. BALDWIN, Newark, Mo.
Offers for sale at reasonable rates a large and fine stock of pure bred Poland-China Pigs of all ages. Choice Pigs, \$15 to \$25 each. Also, a number of

SHORT-HORN BULLS, of good Herd Book Pedigree. The above stock is offered at prices farmers can pay in these hard times. For further particulars write to
S. H. BALDWIN,
Newark, Knox Co., Missouri.

Land Advertisements.

"The Best Thing in the West."

Atchison, Topeka & Santa Fe Railroad

LANDS,

In Kansas.

3,000,000 ACRES
Of the best Farming and Agricultural Lands in America, situated in and near the beautiful Cottonwood and Great Arkansas Valleys, the Garden of the West, on 11 Years' Credit, with 7 per cent. interest, and 20 per cent. discount for improvements.

FARE REFUNDED
to purchasers of land.
Circulars, with map, giving full information, sent free. Address: **A. S. JOHNSON,**
Acting Land Commissioner, Topeka, Kansas.

Kansas Land Agency.

DOWNS & MERRILL.

We place on sale, **WILD LAND AND IMPROVED FARMS**, in all parts of Kansas. Parties desirous of selling, renting, or exchanging property, will do well to place their property on our records.

We invite the attention of parties who desire to purchase, to the advantages of our agency for the purchase of

Land or Improved Farms in all Parts of Kansas.

To parties in the Eastern States who design coming to Kansas, we offer full information about Wild Land, or Improved Farms, as also about Government and Railroad Lands.

Address: **DOWNS & MERRILL,**
Topeka, Kansas.

Land! Land! Land!

HOMES FOR THE PEOPLE.

350,000 ACRES

Bourbon, Crawford and Cherokee Co's, KANSAS.

STILL OPENED AND OFFERED FOR SALE BY THE **Missouri River, Fort Scott and Gulf Railroad Company**

On credit, running through ten years, at seven per cent. annual interest.
DISCOUNT FOR CASH IN FULL AT 20 Per cent.

For further information address,
John A. Clark,
LAND COMMISSIONER.

Ho! For Central Kansas.

The Celebrated **Kaw Indian Reserve** now open to actual settlers, on long time. Improved Farms are selling very cheap. Kansas has harvested the finest Wheat crop of all the States for 1875. Whole fields run from 30 to 40 bushels to the acre. Other crops promise a large return. Address,
ROBERTS & LINZEE, Council Grove, Kan.

KANSAS LAND AND IMMIGRANT ASSOCIATION.

Grand Real Estate Distribution

AT ATCHISON, KANSAS, MARCH 29, 1876.

2,664 Pieces of Property, Valued at \$770,800.00.



[The above represents "Price Villa," with 12 acres.]
THE KANSAS LAND AND IMMIGRANT ASSOCIATION.

It is an association composed of Capitalists and Business Men, residing in Kansas, duly incorporated by the authority of the State, with a Capital Stock of ONE MILLION DOLLARS, divided into Two Hundred Thousand Shares at Five Dollars Each.

The Charter of said Association is for the Term of Twenty-One Years, and confers upon its corporate body and its successors full power and authority to transact business in any of the States and Territories of the United States for the following purposes: the promotion of immigration; the organization and maintenance of Boards of Trade and business exchanges; the accumulation and loan of funds; the erection of buildings; and the purchase and sale of Real Estate.

In furtherance of these general purposes, and more especially to encourage immigration to Kansas and to aid in the erection of a City Hall and Board of Trade Rooms in the city of Atchison, the "KANSAS LAND AND IMMIGRANT ASSOCIATION" has, in its corporate name and capacity, purchased the 2,664 pieces of Real Estate named below, valued at \$770,800.00, and will on MARCH 29th, 1876, at Corinthian Hall, in the city of Atchison, make a distribution of the same.

Every share, wherever and by whomsoever held, will be equally represented in the distribution, and will be entitled to one piece of said property that may be awarded to the same; but the particular manner of such award will be decided upon by a majority of the Shareholders present at the time in person or by proxy, and the Members of the Association will not directly or indirectly vote or participate in the meetings of said Shareholders in deciding the same.

NO. OF PIECES. VALUE.
1—"PRICE VILLA".....\$ 75,000 00
1—"GLICK'S BLOCK".....30,000 00
1—"ATCHISON FRANKLIN RESIDENCE".....17,500 00
1—"IMPROVED FARMS".....41,300 00
15—"OF 161 ACRES EACH".....1,674,000 00
15—"OF 30 ACRES EACH".....450,000 00
15—"OF 40 ACRES EACH".....600,000 00
15—"ATCHISON SUBURBAN LOTS".....210,000 00
15—"ATCHISON CITY LOTS".....210,000 00
2,664 PIECES OF PROPERTY VALUED AT - \$770,800 00

PRICES OF SHARES:
The price of a single share is FIVE DOLLARS, but to insure a speedy sale of all the Shares and the Distribution of our Real Estate on March 29th, 1876, WITHOUT POST-PONEMENT, we offer the following liberal rates to clubs when ordered directly from our office:

11 Shares for.....\$ 90 00
22 " ".....100 00
33 " ".....110 00
44 " ".....120 00
55 " ".....130 00
66 " ".....140 00
77 " ".....150 00
88 " ".....160 00
99 " ".....170 00
100 " ".....1,000 00

All orders for Shares will be filled in the order in which they are received, and no order will be filled until the full amount is paid. The full amount may be paid in advance, or by installments, and to avoid delay and disappointment, orders should be forwarded early.

To insure against mistakes and delays, Correspondents will please write their names and places of residence plainly. Active and reliable agents wanted. References required. Liberal commission allowed. Circulars and terms sent on application.

Remittances can be made by Express, Draft, or Post Office Money Order.

For further particulars concerning the manner of Distribution, for endorsements and references, circulars will be sent on application.

All communications must be addressed to
JOHN M. PRICE,
General Manager,
Atchison, Kansas.

15 Shares for sale by Jno. M. Clifton, Topeka, Kan.

E. FOSS, T. ELLIOTT, F. C. TILTON, G. G. BAILEY,
FOSS, ELLIOTT & CO.,
COMMISSION MERCHANTS,
ROOM 15, 164 & 166 WASHINGTON ST.,
Chicago, Ill.

Farmers, Write to Us for Circulars.



THE JOHN DEERE PLOWS

"ADVANCE" AND "PEERLESS" CULTIVATORS,

Manufactured by **DEERE & CO., Moline, Ill.**

CLIMAX CORN PLANTER, HOOSIER CORN DRILL

Woolridge Field Rollers, Scotch Harrows, Coate's Rake, Vibrator

Thrasher, and a full line of

FARM MACHINERY,

DEERE, MANSUR AND COMPANY.

KANSAS CITY, MO.

ALL GOODS WARRANTED.)

SEEDS. SEEDS. SEEDS.

Farmers, Keep an Eye on this Space!

Look out for Items of Interest offered you during the Season.

Orange Orange, (new crop) 1 to 5 bu. \$7.50 Ky. Blue Grass, extra clean (fresh), 1 to 5 bu. \$2.00

5 to 10 " 7.00 5 to 10 " 1.75

10 bu. & over 6.50 Clean Blue Grass, 25c per bushel cheaper.

Alfalfa Clover, the great Clover which does not freeze or dry out, per lb. 40c; per bu. \$20.

Also, Timothy, Red Clover, White Clover, Alsike Clover, Red Top, Orchard Grass, Millet, Hungarian, Peach Pits, Walnuts, and anything in the Seed line.

Send for our New Catalogue for 1876

Containing description of our Seeds, Agricultural Implements, Wagons, Buggies, Spring Wagons, Carriages, etc., and replete with useful information.

SANDWICH

Corn Shellers.

SANDWICH

Corn Shellers.

WE ARE ALSO AGENTS FOR: The Champion Reaper and Mower, Aultman & Taylor (Vibrator) Thresher, Studebaker Wagons, Superior Grain Drill, Taylor Hay Rakes, Canton Clipper Plow, Parlin Cultivators, Crossley Gang and Sulky Plows, Sandwich Corn Shellers, and keep everything in the way of

Little Giant Corn and Cob Crushers,

Challenge Feed Mills, Cutting Boxes, Harrows, Road Scrapers, etc., etc.

TRUMBULL, REYNOLDS & ALLEN,

KANSAS CITY, MO.

AND FARM MACHINERY.

SEEDS AND IMPLEMENTS.

H. MABBETT,

[Successor to GRANT, MABBETT & CO.]

526 & 528 Shawnee St., Leavenworth, Kansas.

WHOLESALE AND RETAIL DEALER IN

Seeds & Agricultural Implements

Landreth's Warranted Garden Seeds,

Orange Seed, and all kinds of Tree Seeds, Seed Wheat, Oats, Rye, Barley, Potatoes, etc., Sweet Potatoes

Top Onions, Potato, Cabbage and Tomato Plants,

Garden City, Chicago and Moline Plows and Cultivators, Champion and Excelsior Reapers

and Mowers, Sweepstakes and Massillon Threshers.

A full line of Repairs of above Machines on hand from Factories, Kansas Wagons, Buckeye Grain Drills,

Sulky and Revolving Hay Rakes, Shovel Plows, Field Rollers, Fan Mills.

A complete and full assortment of every description of Farming Tools, and everything kept in a first-

class Agricultural House. Prices lower than any House west of St. Louis. Do not fail to call and examine

Stock, or send for Price List, before purchasing elsewhere.

WANTED—Flax and Hemp Seed and Castor Beans.

Branch House at Holton, Kansas.

REMOVAL!

The Original Wholesale

GRANGE SUPPLY HOUSE

CHICAGO.

JOHNSON IN

DRY GOODS,

Clothing,

Hats, Caps,

Trunks,

Valises,

Notions,

Etc., etc.

Having moved to our New House,

227 & 229 WABASH AVENUE.

With a door surface equal to about 1 1/2 acres, we are now better than ever PREPARED TO SUSTAIN

WIDESPREAD reputation as the ORIGINATORS of the system of DIRECT DEALING with the CON-

SUMER at WHOLESALE PRICES. WE ARE NOT purchasing AGENTS, but OWN and carry in our MAN-

NOTE House all the classes of goods quoted by us. OUR GOODS are ADAPTED to the wants of the

FARMING community. WE ARE ENDORSED by the EXECUTIVE OFFICERS of every STATE

GRANGE from Pennsylvania to Oregon.

PRICE LISTS, with FULL INSTRUCTIONS, sent FREE upon application.

PLEASE CALL and see us when in the city.

MONTGOMERY, WARD & CO.,

Opposite the Matteson House 227 and 229 Wabash Avenue.

VINEGAR, NOW MADE IN 10

WINE, Molasses or Sorghum, WITHOUT USING DRUGS. Address F. I. SAGE, Vinegar Maker, Springfield, Mass.

\$77 A WEEK guaranteed to Male and Female Agents, in their locality. Costs NOTHING to try it. Particulars Free. P. O. VICKERY & CO., Augusta, Me.

USEFUL BULLS CHEAP!

I WILL SELL, cheap, two young SHORT-HORN BULLS, for which I am able to give correct pedigree. One is a rich red roan, growthy and vigorous, coming 1 year old April 1st. The other is a red and white, large and likely, coming one year old June 1st. These Bulls are all right, and useful animals to cross upon common cows. PRICE: \$50 and \$35.

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