THE KANSAS FARMER

ESTABLISHED, 1863. TOPEKA, KANSAS, MARCH 10. 1880. VOL. XVIII, NO. 10

THE KANSAS FARMER.

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

Forestry.

HOW, WHERE, AND WHAT TO PLANT ON THE PLAINS OF WESTERN KANSAS, ADJACENT TO THE 99TH MERIDIAN OF WEST LONGITUDE.

BY MARTIN ALLEN, OF MAYS CITY.

[From the advance sheets of the forthcoming report of the Staie Horticultural Society.]

While in the east, forestry is already begun for profit, its chief projectors there admit they have much yet to learn. We in the west have to begin from necessity. Whole counties can be found immediately west of us where the natural timber would not supply their present population with firewood alone for a single year; and to our poverty in supply may be added our ignorance of the subject, for we have everything yet to learn, and no schools to go to for that learning. Forest trees are needed by us not only for the wood and shade they furnish, but to stop the force of winds that come and go with such force at times as to render our homes and stock uncomfortable, our orchards and fruit unsafe, and our field crops liable to injury.

To obtain the best results in forestry, a good soil ought to be selected, and at the bottom of a northern slope, where it would catch the wash from adjacent lands, and be somewhat sheltered from the south winds and noonday suns, would be preferred. But as our soils are all tolerably good, and the natural surface of the country so level that slope or exposure makes but little difference, I would on general principles plant where the trees after grown, would produce the most pleasing effect to the eye, or would be likely to do the most good in the way of shelter and protection to orchards, dwellings, stock-yards, and may be growing crops also ought to be considered. Therefore, planting would be advisable if not highly commenable, all around the farm, or on any side of it, or if large, thro' the middle of it, excepting only to be immediately south of the dwelling, where a grove or orchard should not be admitted; for the comfort of its inmates this side of the house should be left open to a a free circulation of the atmosphere during our hot days of summer.

If this plan is to be followed, and long single or double rows to be planted, the ground may be well prepared by first breaking, say in May, and replowing in a strip or strips, as the case may be, as soon as the sod is sufficiently well rotted, and before weeds have ripened their seeds thereon, this plowing to be repeated, say in the fall of the same year. By these two plowings a dead furrow can be created sufficiently deep to form the holes for the trees without digging; and this furrow being exposed to the frosts and snows of winter, will put all in excellent condition for spring planting; and the only improvement to be made upon this preparation, would be to use a sub-soil plow in the bottom of this furrow, or these holes—which ever name you may choose. This mode however is applicable to a rapid and thorough preparation of long single or double rows, and when trees of some size are to be planted, after the trees are put in place, and well pulverized soil only allowed to come in contact with their roots; the filling up and leveling of these furrows can be mostly done with a horse and plow. This is a cheap, rapid, and highly efficient mode of planting, which is also applicable to planting fruit as well as forest trees.

For planting very small trees, seeds, or an osage or other hedge, the only modification of this plan would be before planting to plow again as deep as possible, reversing the order of the plowing, and turning the back furrow into the dead furrow, finishing with the harrow, or for the finest work, with the garden rake. This gives at once the finest, deepest, and best pulverized seed bed, free from weeds, and only needs to be kept so to insure success with either orchard, forest trees, or hedges.

When this plan has been adopted, for a seed bed, and a surplus of seedlings has been grown in this row, which should be the case, they can either be taken out and sold, or planted in one or more rows, on one or both sides of the original, which may have gone through the same process of preparation one year later. These should be twelve feet apart, so as to admit a team and plow, to go between them, to turn under any crops of weeds that appear before the trees are sufficiently large to shade the ground. Two rows of corn, peas, or potatoes can be grown between each two rows of trees, two or three of the first years after planting. If a considerable breadth is to be planted however it will be well to give one year more to the preparation of the ground. After breaking in May, and cross-plowing, early in the fall, sow in winter wheat, after this crop is harvested the ground should be plowed before weeds get a foothold, and let me caution all to not put millet on ground intended for trees, because here it becomes itself not only a valuable forage plant, but also a troublesome weed, very difficult to eradicate. The ground should again be plowed, this time deeply, late in the fall or winter, and well harrowed, or smoothed with a clod-crusher, after which in early spring, mark off as for corn, three by four feet preferred; plant two rows in corn and one in trees. For easy and rapid work, 12 to 18 inches would be a convenient size. Each planter should take a few of these trees in a pail, with their roots either immersed in water or a puddle of clay and water, well mixed, to the consistency of thick cream; and with a sharp bright spade, at each of the places indicated by the marking for a tree, make an opening and plant one, being careful to allow no clods to come in contact with its roots, and also to get it to its proper depth, with roots spread out naturally and firmly fastened by pressure. Never plant immediately after plowing, unless estimating when planting each tree, for the ground to settle from one and a half to two inches. This plan leaves the trees standing three by twelve feet, and the corn three by four feet, and the whole may be well cultivated as a corn field. The two first years cultivate both ways, then, if the trees are of free-growing sorts, potatoes or peas may be substituted for the corn on the third year, and only cultivate one way. By the fourth year one half the trees are to be cut out, leaving a stand of six by twelve feet, when the cross cultivation may be revived with good effect, in eradicating any weeds that may have secured a lodgment in the rows. After this an annual light plowing, to cover the weeds that may grow, just before ripening their seeds, and mowing the weeds in the small strips in the rows where the plow cannot reach, will be sufficient until the ground becomes completely shaded; then mulch with straw, coarse manure, or other rubbish, and this will complete the culture.

The further culture will consist in most diligently keeping out fires and proper thinning, which will need to be done, if cottonwood, and saw logs the ultimate aim, three times yet, in the next fifteen years, which would leave the trees then twenty-four feet apart each way, at which distance they should in twenty-five years furnish hewing and saw timber in abundance.

Suppose the course here pointed out to be followed with an acre of cottonwood, the crops grown between the rows the first few years, and the seven-eighths of the trees cut out in thinning, would pay abundantly for all trouble and expense, including cultivation and care, that the seventy-five remaining trees have received. Six hundred feet of lumber, worth six dollars, and a cord and a half of wood, worth three dollars more, uncut, would be a moderate estimate to the tree, or six hundred and seventy-five dollars per acre. But suppose one-half be deducted to cover all possible accidents, emergencies, and contingencies of every nature, then what is there that shows better profits, or if the grove be to the east or west, or north of the farm buildings, may it not be worth even more, in comfort to man and beast, than in dollars and cents to the purse of the owner?

If slower growers, producing more valuable timber, be selected for planting the grove, the cultivation might have continued two or three years longer before the ground would be shaded; and less persistent thinning at first would answer; maturity would also be delayed, yet the contiual use for shelter and the ultimate crop of timber would be equally, if not even more valuable.

Various modifications of this plan would be admissable, to suit the wants and convenience of the planters—such as planting peach seeds at the points for the second thinning. If the cultivation be generous they may give some fruit before it will be necessary to cut them out, and when this is done they will furnish much superior fire wood, and when dry the limbs make the best of kindling wood.

If the plantation be of rapid growing and quick maturing sorts, I would look with favor upon the plan of interspersing in each alternate row, burr oaks, black walnuts, and wild cherry. they would be likely to get started, so as to make a second crop of stately trees much quicker than could be done from a second planting after the first regular crop had been cut off; sprouts making a rapid growth might be expected from many sorts cut down, but they would now be secondary in size and importance, to those that had until this cutting always been, subservient to them.

THE QUAKER SULKY RAKE.

I am well aware that very many intelligent men recommend planting much closer than here suggested; they use very many more trees to begin with, and grew no remunerative crops among their young trees, and must necessarily fail to give the proper cultivation, which is so very essential, and must, for want of room to cultivate, allow one-half to two-thirds of the proper growth to be absorbed and destroyed by weeds, which in turn furnish harbors for mice and rabbits, that often do great injury to small trees, and exposes the whole to destruction by fire. Clean culture is not only the best safeguard against difficulties, but the surest road to a rapid and profitable growth of young trees. It never seemed to me consistent, to recommend thirty or forty feet apart, for our fruit trees, and two-by-four, or at most, four-by-four feet for our forest trees, as some have done. This last distance is the one contemplated by congress in the "timber culture act."

Those who want to plant, and at the same time comply with that law, and secure reasonable success in the growth of their trees, should plant and cultivate on the long row plan, as first herein detailed, and thin out as fast as consistency with the law will allow. Four rows all around a quarter section, twelve feet apart, would cover the necessary ten acres, and sixteen inches apart in the row, would make the necessary number of trees, which may be thinned to three feet in the row, by time of making final proof.

With good culture, however, I doubt not, that a more persistent thinning would be better, that half the number of trees at first planting, and during the whole process, will be found more satisfactory in their rapid growth and the ultimate product of their timber, more especially when the free growing sorts are planted.

The cottonwood is our most available tree upon the plains; seedlings of it often spring up on newly broken sod, and along the sand banks of our streams. These at one year old make excellent stock for grove planting. It also grows readily from cuttings, which may be made ten inches to a foot long, and planted nearly their whole length in the forest rows, or may be better still in rows thickly in the seed bed, where they are to remain one year only, and if well cared for, make nice but rather large trees for forest planting.

The willow family is rather largely represented with us, and some of the large growing sorts are well worthy of cultivation; it may be grown from cuttings the same as the cottonwood, but do not use the chance seedlings found growing on the sand bars, as very many of them would turn out to be small and feeble growers, unworthy of our care or culture.

The box elder seeds should be gathered about the time of the first frosts in autumn, and planted between that time and early spring, thickly in rows, in a good, well prepared seed bed. The yearling plants make nice stock for forest planting.

The green ash may be treated the same as the box elder; it furnishes our best native wood. It is rather slow while young, and is sometimes hindered by a large green worm, known as the tobacco worm, eating the foliage.

The elms, white and red, ripen their seeds the latter part of May. They should be gathered and sown without delay, thickly, without covering, in a well-prepared seed bed, partly shaded and watered for several days, until they get a start. The former makes one of our best shade trees, when planted singly, as shade trees must be; and the latter is a fair grower, furnishing very good small timber, to say nothing of its bark, as an emollient medicine.

The hackberry seeds are quite different from the ash or box elder, but may be treated practically the same way. The young trees are slow the first year or two, and are troubled with rabbits eating them even in the summer time; it ultimately makes a fair grower and a good firewood.

The mulberry seed I have no experience with, but if a single tree can be obtained it may be propagated and extended by layering; it is a small tree of the most valuable wood, and its fruit is by no means to be despised.

The Kentucky coffee-tree is said to furnish exellent timber; its seeds may be planted in the fall, and as it forms an immense tap root, I judge it would be best to plant where it is to remain. One thing to commend it, is its beautiful, doubly pinnate foliage.

The black walnut should be gathered soon after it drops from the tree, and if spread out thinly on soft ground and slightly covered and kept moist, it will sprout and be ready for planting in the spring, where it is to remain. It does not transplant well, but is one of our best, large-growing trees, and is one of the most desirable to intersperse with other sorts for a second crop of timber.

The burr oak acorns may be gathered soon after they fall from the tree, and kept in the cellar, mixed with moderately dry saw-dust, earth or sand. In early spring they will be sprouted and ready to plant, either in forest, or seed-bed for future transplanting.

The above, I think, include all our strictly native sorts worthy of culture, except the red cedar, our only native evergreen. It is not so easily grown from seed or transplanted as most of the above. Its culture, therefore, belongs more strictly to the nurseryman. It ought to be grown largely for ornamental hedges and screens from the wind, about our dwellings. For this purpose it has no equal anywhere in this latitude, here or eastward. The great value of its wood is well known.

Of the trees growing near us on the east may be mentioned the honey locust. Its seed may be gathered almost any time during fall or winter, and soaked in warm water in the spring before planting. It is a tree worthy of quite extensive cultivation, both for ornament and use.

The sycamore seeds I have no experience with; but it, like the mulberry, can be readily extended by layering. I think it is not very valuable, but worthy of moderate trial, and may be useful in an ornamental way.

The soft or silver maple extends its native habits into the valley of the Blue river, in our state. Its seeds ripen about the same time as the elms, and may be treated practically the same way, but should have more room, more covering, and will do with less shade and water. In cloudy, moist weather it will do well without either. As a rapid grower it is well worthy of trial. It like the mulberry and sycamore, can be quite readily increased by layering.

The native buckeye, or horse-chestnut, extends some farther west than the maple, and is worthy of trial in a small way for ornament. Some of its sorts, especially the dwarfs, are very beautiful. Its seeds should be planted soon after ripening, in early fall, at a moderate depth, and not entirely covered with earth, and the covering finished with leaves or other rubbish, to be partly removed in the early spring. It does not transplant well.

Of trees not native of our state I will name first the osage orange, an excellent hedge plant; succeeds well here; its timber is the very best, and, while of rather slow growth, should not be neglected as a forest tree. Do not plant among corn, or other trees; it does not endure shade, which is a great benefit to many sorts. As the plants are already an article of commerce, I need not give the mode of growing it from seed, which is not so easy as with most other sorts.

The cypress, a southern tree, that endures the northern winters, should be tried here. I have no experience in growing it from seed.

The catalpa, a native of the lower Ohio valley, and southward, promises well here. The wood is soft, but very durable for posts, railroad ties, and such like. The seed should be planted about the time of planting corn, in well-prepared soil, and may make a growth that season of from one to three feet.

The Virginia wild cherry should also be tried. The seeds may be planted in the fall, or, if obtained late and dry, they may be soaked moderately and subjected to freezing, mixed with earth or sand, before planting in spring.

Of strictly foreign trees, the alianthus, a Chinese tree, promises as well as any so far as tried. It may be grown readily from seed, or from root cuttings made in the fall or winter, kept in sand or earth in the cellar, and planted in the spring. It should, however, be confined to the central part of a grove, where it could not find its way out, as it is a terrible wanderer. Do not plant it where sprouts are not wanted.

The sugar maple, beech, white and golden willows, larches, firs, and spruces, in fact, most of the best sorts of the north and east, are practically unworthy of further trial here at present.

In a brief paper like this, upon a subject that has called forth volumes from able writers (unadapted in many respects to our locality), very many things are necessarily omitted, and nothing treated at the length deserved; yet I hope these few and hasty suggestions may prove of at least some value to planters on the "treeless plains." Let every one of us to whom these presents shall come, do our duty in redeeming our respective localities from the epithet of "treeless."

The Quaker Sulky Rake.

The cut on this page of the FARMER represents the above named rake which is a combined hand and horse dumping hay rake, claimed by the manufacturers to be the most perfect machine of the kind in the market.

All sulky rakes that are dumped by the power of the horse, claim conveniences for dumping by hand power, but they lift heavily, and are inconvenient to handle; hence, with them, hand power for dumping cannot be substituted for horse power any considerable time, and should the appliances for using the power of the horse become disabled, the rake is useless when most needed.

In the new Quaker self-dumping rake we have the easiest hand-dumping rake ever produced, and should the appliances for dumping by the power of the horse become disabled, which is scarcely possible on account of its simplicity and great strength, the farmer is not inconvenienced in the least, the prineiple of construction, and the mechanical arrangement of this rake, render the necessity of applying the power of the horse to discharge the gathered load almost superfluous.

The simplicity and cheapness of the appliances for using the power of the horse for discharging the gathered load, adds little to the cost of the rake, and subtracts nothing from the ease and convenience for operating it by hand. Weeks of constant use on the roughest prairie land has fully attested its superiority as a combined self and hand-dumping rake.

The superior excellence of this rake is attested by the fact that more than eighty thousand of these rakes before the last improvement was added, were in the hands of farmers in this country and Europe, and the patentee now offers to the public this New Quaker Rake, with the assurance of durability, great satisfaction, and little trouble to the operator.

The Quaker Rake in appearance, is plain, simple, and neat in operation, rakes clean, lifts easy and falls back lightly in construction, scientific, mechanical and reliable. Its simplicity and compactness enables the most inexperienced to put it together and operate it, and only weighs 275 pounds.

The farmer will learn, by using the Quaker Rake, that there never was, a universal two wheel self-dumping rake, unless both wheels are keyed fast to the axletree, which is not practicable. With the rachet appliance it is mere chance; the friction comes nearer on smooth land, running straight, but on rough land and turning curves dumps the harder in consequence of being applied to both wheels, as one or the other must slip the friction. Farmers pay for a great deal of cumbersome complications of machinery of no use, and liable to become disabled at the time most needed.

The scientific arrangement and mechanical construction of the Quaker Rake, renders any application for discharging the gathered load, a a bagatelle.

The Quaker Sulky Rake is manufactured by the Higganum Manufacturing Corporation, at Higganum, Connecticut. James Hollingsworth is the general agent for the northwest, whose office is at Chicago.

Farm Stock.

Hog Breeding.

First in importance to successful breeding is full maturity. No brood sow should be brought into service at an earlier age than from ten to twelve months—the latter being much preferred. None should pig more than once the first breeding year. The most vigorous period for breeding extends from the twelfth to the twenty-fourth months. Both sexes are then in their prime, and if properly bred will not fail to bring strong, healthy pigs. Select those hogs for breeders that are so formal as to admit of full development of the vital organs. The lungs should have free action, the kidneys must be strong and vigorous, the digestive organs should be perfect, and work in full unison. Avoid all hogs with a tendency to a sluggish liver.

Whie the sow is with pig she is particularly subject to derangement of the digestive organs. They are likewise susceptible to the least climatic changes, and the inactivity of the vital organs permits the virus to accumulate until it is absorbed into the circulation; the organs will then no longer perform their functions, and the sow will cease to thrive, while at the same time the pigs will become inoculated with the germs of disease. If too much corn is fed it overheats the blood, thus putting it in a position to aggravate the disease. Her whole period of gestation indicates and requires that a mild cathartic and a strong tonic be administered in regular doses, and those who fail to comply with nature's demands in this particular are sure to suffer for it. If her actions were not restrained, and if she were not subjected to the will of man by being placed in conditions that are forced and unnatural, instinct would direct her to seek these necessities. As man has hampered and diverted this instinct and rendered its exercise impossible, he must supply its place with his reason; he must watch her symptoms and apply the remedy and thus avoid a runty progeny. Do not allow her to nest too much, and if so inclined, force them to exercise. Change food often, and shelter from inclement weather. Change their quarters at intervals, and never allow the sanitary condition of the place to be in the least neglected. Remember, the cleanest of all domestic animals, if well bred, is the much maligned hog.—*J. Haas, in Drover's Journal.*

Horses and Horse-Breeding.

There is likely to be an active demand for horses this spring, especially for horses of good weights. But there are indications that all kinds of horses will be wanted at figures considerably in advance of last year. Heavy horses are wanted in the large cities; they are called for in "the pineries," and wherever there are large manufacturing establishments; and especially are they wanted by farmers who, doing a large share of their work by machinery, find light weights unfit for such business. Light weight and well bred horses will go as they have gone before; sound common stock will be taken to the west for emigrants who have the money to pay for them, while the plugs and unsound horses will be sold on credit at 100 to 200 per cent. advance.

Judging from the increasing activity of the horse market for the last few years, and the high price paid for sound, large horses of almost any form, and the fancy figures which a piece of horse flesh a little above the common will command, it is evident the supply has fallen far below the demand, and that consequenty horse-breeding will become as prominent as cattle-breeding.

Mr. Strawn, of Jacksonville, Ill., the great cattle man of his day, used to say he could breed and raise to three years old, three good, sound horses at the expense of two steers, but the difficulty was that in his day there was no market for them; but for steers there was always a money demand at some price. Now, considering that horses are more exclusively grass-eating animals than cattle, and can be raised with less grain (or indeed without any grain at all), what is to prevent some skillful man like Strawn or Gillette, from achieving such triumphs in heavy horses as these men have in cattle. In some of the longer-settled corn and cattle counties of this state, notably in Logan and Sangamon, your correspondent has repeatedly seen herds of horses grazing in old blue-grass pastures in mid-winter, whose condition, so far as flesh was concerned, left nothing to be desired. And yet these creatures, mares and colts both, have never been fed an ear of corn, or stabled since they were born; nor had they been broken or handled.—*Country Gentleman.*

Apiary.

Bees the Present Winter.

There has seldom, if ever, been a season so discouraging to bee-keepers throughout the whole United States, as that of 1878-9. According to the reports from the several state delegations at the national convention in Chicago, the honey crop averaged from failure to one-half a crop. In no state was the yield declared to be more than one-half that usually secured. As a result of this unpropitious season, bees went into winter quarters illy provided with stores. Well informed and cautious apiarists, aware of this lack, fed weak colonies last fall sufficiently to supply the need. But from failure on the part of many to act thus wisely, many colonies of bees are now deficient in stores. I have many letters every week asking advice in the premises. Happily, the present winter is a very favorable one, and we may be almost sure that our bees will winter well, unless they do starve because of scant supplies of honey.

It is never desirable to feed liquid stores, either honey or syrup in winter, and not well to feed at all, unless positively demanded. The best way to feed, if we must, is to put candy made from granulated sugar an the frames, just above the cluster. This will be kept warm, and can be taken, and will disturb the bees so little, that if it must be done, it will generally succeed. If the bees can pass the winter until March—and the stores needed during the cold winter are very light, compared with those consumed later after brood-rearing commences, then we may feed either honey or syrup. Then the bees can fly occasionally, and will receive no harm from liquid food. This food, too, will stimulate brood-rearing, and thus work a double benefit. The feeder will need to be so constructed as to keep the food near the cluster, or the bees will not appropriate it because of the cold.

No one should fail to use a division-board in winter and spring. Keep the bees crowded on to so few frames that all will be covered, and spring dwindling will do little harm.—*A. J. Cook, in Land and Home.*

Do Not Let the Bees Starve.

Tin cans, such as are ordinarily used in putting up fruit and vegetables for winter use, are about as good as anything we know of, and much the cheapest, as they can usually be had for the saving, or for the trouble of gathering up and cleaning. Fill about three-fourths full with honey or syrup, tie a cloth firmly over the open end, then invert the can on the tops of the frames, and cover all with the blanket to keep warm. We do not advise feeding before the weather is warm enough for the bees to have frequent flights, unless they are quite destitute, when feed should be promptly and generously given. In all cases of feeding, we must be very careful not to incite the bees to robbing, which is one of the greatest disasters that frequently befalls the inexperienced bee-keeper at this season of the year. Should they be disposed to do so, close the entrances of all the hives to half an inch.—*American Bee Journal.*

Miscellaneous.

Another Theory for Increasing Rainfall.

We have had no rain here since last November, yet what wheat I have examined is alive, and if we get rain in two or three weeks we will be all right as far as crops are concerned. Stock is doing well, as there has been no rain to spoil grazing.

The farmers here are turning their attention more to stock-raising, as a better investment than anything else they can do.

I was somewhat struck by "C. F. B.'s" theory for increasing the rainfall on the western prairies. I think he has gone clear beyond the resources of these westesn counties. I think if the settlers would keep prairie fires from burning the country over, we would not be troubled as much by drouth as we have been for the last two years, and the expense would not nearly reach the amount required to construct dams across the draws and ravines. If the farmers would get screw-harrows or something to run over the prairies and loosen the top of the ground, the grass would grow ranker and the ground would retain the rain that does fall, and would be a lasting benefit to the land, the owner and the community in general.

I think Stoner's cattle-shelter would do very well for all kinds of stock except sheep, as it would litter more or less, and the wool would get full of hay or whatever was fed. I think Mr. Anderson's roofing, also, is a good thing. Last fall we covered a chicken-coop with broom-corn on nearly the same principle as he used the hay, and it answer almost as well as a board roof.

I don't see why it is that farmers don't take more interest in their own business by taking agricultural papers and profiting by what they read. We take four agricultural papers, and the information that we get from them more than ten times pays the cost of them, besides making home more attractive and furnishing food for the mind. A person that has a well developed mind always reads a great deal, and is always well posted on almost every subject.

Long may the FARMER live to teach the way of liberty and independence.

A SUBSCRIBER'S SON.

Offerle, Kansas.

P. S. In looking through the FARMER more closely, I find an inquiry about osage orange hedge. Thinking my experience may benefit him to some extent, I will answer: First, sow as soon as the ground is thoroughly warmed in the spring; if the ground is cold the seed will rot. Second, sow about two inches deep if the ground is moist on top, if not, scrape the dry earth away and plant in moist ground. Third, it should be replanted in the spring. Plant with a spade. Force the spade into the ground with the back next to you; push the spade from you; put your plant in the open space behind the spade; bring the spade into the original position, then withdraw it and tramp the ground solid on the plant and proceed as before. Fourth, I don't think manure would help much, as, generally, new ground is rich enough. Fifth, I don't think a fence can be successfully grown from the seed, because you can not sow the seed thin enough in the row, and if you cold, some of the seed would not come up, and there would be large places without plants, and it would take too much ground and labor to tend to it to pay expenses. A. S. S.

Agricultural papers have clearly been a valuable investment to this farmer's family. The boy's plan of increasing the rainfall is much more promising than the dam system. The tough prairie sod once broken up in large areas, which could be done by the means suggested, at much less cost than building dams, would absorb large quantities of water, and the supplement of a light sprinkle of tame grass seed would soon push out the wild grasses.

Farm Experience.—No. 2.

In setting out my apple trees I forgot to state that I leaned them to the southwest so that the trunk of the trees would point to where the sun would be at about three o'clock p. m., in June, July and August. Let me say right here that this piece of valuable information I learned from an article in the FARMER, by C. W. Tifton, of Burlington, Kansas, some years since. This one item has been, and will be for years to come; worth more to me in dollars and cents in keeping my trees healthy, than all the money I have or may hereafter have to pay for the "Old Reliable" KANSAS FARMER, and yet some farmers are so blind to their own interest that they think they can't afford to take and pay for a paper of this kind. Four out of five of this kind of men (I can't call them farmers) do as one of your correspondents a few weeks ago said, they "go back to their wife's relations."

The spring of 1873 I planted my first sod corn. This is the way I did it. Broke the sod, harrowed it down well, then replowed it, harrowing again, and marked it off both ways, planted it with a hand corn planter, three to five grains to the hill. This was a failure. The cause, too many grains to the hill. Two grains is better than three, and one is better than four or five.

Another mistake I made in the beginning was in putting my house too near the section line. Twenty rods distant is near enough, the centre of the quarter, east and west or north and south, is more convenient than either corner, provided the land lays equally as well.

This season I broke about fifteen acres of sod. My experience is that two inches is about the right depth for sod. I rebroke a part of this ground two inches deeper than at first, and sowed to wheat, drilling it in at one bushel per acre, variety, Little May, yielding the following season, 1874, eighteen bushels of No. 1 quality. A word iu regard to plowing for fall wheat. Sod should be broken about two inches deeper than at first breaking, keep it harrowed down as fast as plowed each day; this will keep it from drying out so fast. Best time to plow last half of July and first half of August, for old ground; the sooner after harvest the better, and when plowed in June or July, the deeper the better. The nearer the time of sowing the shallower I would plow. Taking one year with another drilling will be found the most successful.

The spring of 1874 I planted a few acres of corn; dry weather and chinch bugs got away with it, (and not grasshoppers,) sowed four bushels and threshed six, the first and last of my experience with spring wheat. The fall of 1873 I planted five bushels of walnuts. This is the way I did it. Broke the ground six inches deep, harrowed thoroughly, marked off one way, rows four feet apart, then dropped about 18 inches apart, covered about the same as potatoes. They were planted as soon as gathered before the hulls were dry, nine-tenths of them came up the following spring, growing about as fast as corn till they were about knee high. This is about as high as they grow the first season. The grasshoppers destroyed about 2,000 of the young trees by eating the foliage off.

The fall of 1874 sowed 18 acres of wheat, the grasshoppers eat up about seven acres of it, which I resowed, finishing about the 10th of October. This yielded about 28 bushels per acre, while that which was not resowed went a little over 20 bushels per acre, variety, Little May. From the 1st to the 15th of September, is, in my judgment, the best time to sow, provided the season is favorable and ground in good condition.

The spring of 1875 I planted two acres of cottonwood cuttings, the ground being thoroughly prepared, marked off both ways 4x4 feet. The cuttings were all cut before the sap raised, of the previous years growth, none smaller than an ordinary lead pencil in diameter, and about eight inches long; these were carefully buried by laying a layer on the surface of the ground and covering with fine soil, then another layer of cuttings, and so on until the bed of cuttings is 8 or 10 inches high. Proceed as before until all are buried sufficiently deep to keep them from drying out. Examine them frequently, and when the butt ends are pretty well calloused over, and small roots begin to push through all over the surface of the cutting, then plant immediately. This is the way I planted mine. Take a stick the length of a spade, two inches in diameter, round or square; sharpen one end with a long slope, put a piece through 12 inches from the point, of sufficient strength to place the foot on to force it into the ground; then a piece near the other end for a handle, and you are ready to go to work. B.

Setting Out An Orchard.

As quite a number are discussing tree-planting, I will add my mite, although I have not had the experience that many of the writers have had.

I came to Woedson county, Kansas, in the fall of 1876. In the spring of 1877 I purchased about eighty apple trees and twenty peach trees at a small nursery about five miles from my farm, and planted them in the following manner: I dug a hole about two feet in diameter and a foot or more deep; set in the tree, and filled around it with fine dirt; shook the tree and raised it enough to have it the same depth it stood in the nursery, then finished filling the hole to the top of the roots, and pressed the dirt firmly around the body of the tree. I then put a mulch of old barnyard manure (old hay or straw will do) about three inches thick around each tree, and plowed a furrow on each side of the row of trees, throwing the dirt over the mulch to the thickness of two or three inches. I did not lose a tree in this planting.

In the spring of 1879, I set out 440 apple trees, some peach trees, and a few pear trees, in the following manner: I first staked out the rows, then throwed out a furrow both ways with a two-horse plow, as deep as I could, then set my trees as before, mulched and threw the dirt over the mulch. In one plat of 136 trees that I planted, I dug a large hole in the center of the plat, filled it with water, mixed in mud to make it about as thick as mush, and placed the trees in this mush, taking them out as I planted them, taking care to have the roots well covered with the mush. Planted the same as the others. Every tree in this plat lived, and grew better than those not put in the mush and water. I shall follow the last way whenever I plant trees. I lost but three trees in the 440 apple trees.

One man and myself finished planting the 440 trees in three days. The trees were mostly four years old. I prefer this age if I can get it. I leave the top of the tree about a foot from perpendicular towards the south or southwest. Those I planted in 1877, stand about straight now. The Kansas winds are so strong that if a tree is set straight at the time of planting, it will soon lean to the north. I plant the trees twenty-two feet apart, as I have seen several very nice orchards that were that distance apart.

I hope some of those who are thinking of planting trees this spring, will try this method, (and I would advise such to get the trees as near home as possible), and report through the FARMER—the best paper for the western farmers that I have seen. J. J. D.

Everett, Kansas.

A Defense of the Dry Region.

Allow me to answer your correspondent who signs himself Twin Ranches, Edwards Co., Kansas.

I am from New York state, and am in the northwest part of Ness county. I took my claim one year ago. All was then new; not a furrow plowed. Of course I did not expect to get rich the first year. I went on and broke prairie sod, sowed millet and planted corn. Then rain came, and crops grew finely. We raised plenty of fodder for our stock, and if we had had old ground, which would have taken in the rain that came, in place of new breaking which allowed the water to run off mostly, we would have raised very large crops of corn. In proof of this, I can refer to Mr. Bryant, who is about twenty miles north of me. He had old ground, worked his corn, and raised over sixty bushels to the acre. Mr. John Wickel raised over twenty-five bushels of corn on the sod of first breaking, and last year, as you know, was called very dry.

I do not wish to tax your patience or space too far, but cannot bear to see the country slandered. I came here to make a home for myself and family, and feel very sorry to see the country misrepresented. I know there are very many people who come out here and expect to break the prairie sod and raise a living, pay for all improvements and have lots of money to spare, from the first crop, and when they fail to accomplish this, they are ready to curse the country. What we want here are steady, earnest men who are willing to wait until they can get their ground under proper cultivation, to take in the rain when it comes. Large crops will be the sure result. Our soil retains moisture longer and better than any soil I ever saw, and the producing qualities are ahead of all others. I predict a very rich, prosperous future for the ten frontier counties that are now so badly off, according to your correspondent's theory, for irrigation.

GEO. W. STRANAHAN.

Forrester, Ness Co., Kansas.

PLAINSVILLE, Rooks Co., Feb. 22.—Your excellent paper is an ever welcome visitor with us. We have been here nearly two years; are settled on what is known as the Paradise flats, owing to the stream of the same name. It is surely an earthly paradise. For beauty and fertility it is hard to equal. There have been a few settlers along the streams for the last nine years. The county has had an organization for seven years, but three-fourths of the settlements have been made in the last two years. We now boast of a population of about eight thousand. Have no railroad as yet, but we expect to hear the neigh of the iron horse in the South Solomon valley soon. The county is generally settled by farmers of limited means but of a determined will; we make things "get up," (according to the old saying).

The good land is all taken, but there are plenty of claims to be bought from $100 to $500. The improvements on the claims are often worth the price asked. This is surely a great inducement to immigrants to come here. If they have an extra team and wagon, they will trade for a good claim.

We have been having it very dry the last year. There has been no heavy rainfall for nearly twelve months, but frequent light showers early in the season; latterly, they likewise have failed. We have had but two light tracking snows this winter.

There was considerable plowing done in January. The ground is very dry, and frozen a little in the mornings. It will be a hard matter for us to get our spring crops in without rain. Stock water is very scarce, all the streams having dried up, but the springs and wells give an abundance of water for all demands, though rather far off for some people. I have heard of water being hauled three miles, but the most of the settlers have wells of excellent water. The distance we have to dig for water ranges from five to one hundred feet; the average, thirty feet.

Fuel is quite an object with us. There is but a narrow belt of timber along the water courses. No coal has been struck as yet. We have plenty of building stone, nice magnesian limestone.

With all our drawbacks we have succeeded in raising enough to live on after a fashion. The corn was injured by the heart worm, but it proved to be a paying crop. There wasn't much wheat sown, and the crop was, of course, light, but all paid for cutting. The wheat crop is destined to be a very paying crop; there were pieces that yielded twenty-five bushels to the acre last year. Potatoes were a light crop. Beans have proved to be a failure with us for the last two years, (the White Field, I mean). Onions will do well here.

I would say to C. A. Curtis, of Ness county, work up the interest of broom corn, sago, or rice corn, and sorghum. They all do very well here. I have been in the sorghum business for the last fifteen years, and will give my information as regards the best kinds to plant. The Amber seems to be the standard at present. The old black-top sorghum, that resembles it very much, is better for syrup. I have no evidence that it pays to raise any kinds for any other purpose. The Amber is said to go to sugar very readily, but it has failed to do so with us any more than the old sorghum. I would recommend the kind named above, and let all other go. Nine-tenths of the kinds raised are worthless compared with the above. I have worked nearly all the kinds that are grown, up to date. The seed can be got of most of the seedsmen. We can supply a few applicants for the price of stamps for return mail.

Sorghum will grow well on fresh-broke sod, and will give a heavy yield if not planted too thick; 2x4 feet is close enough; three to five stalks is enough in a hill. Never plant on manured land; stick to natural soil. Any soil will produce sorghum that will grow corn.

As regards prairie-breaking, two inches is a very good depth. To go deeper, I think is a useless strain on the team. I break any time in the year that I can devote to it. From the first of May to the first of July may be the best, but that is the busy season for other work.

Fruit tree growing is an experiment with us on Kansas soil. Will some one of experience inform us, through the FARMER, what is the best kind of apples and how many of a kind to plant in an orchard of five hundred trees.

Forest tree growing is quite an object with us at present. To get a sufficient amount of seed from abroad seems to be a difficult matter. Cottonwood, black walnut, elm and ash are all that we have that is worth growing.

The health of the country is generally good.

U. S. H.

Peas for Hay.

Mr. R. G. Stokes, Hernando, Miss., says:

"I have for years kept fatter cows and had more milk and butter, and for less money, than anybody I know of; first, I sow peas broadcast from three pecks to a bushel per acre, in the month of July, harrowing them in, after breaking the ground well; then in September, I pull or cut them just when a few begin to dry, and make hay of the vines and peas. I get from 4,000 to 5,000 pounds per acre of hay that is eaten by cattle and horses as eagerly as if it were the best clover. Pulling up is better than mowing, but more tedious. Cattle seem to love the root better than the tops, and it is said to be more nutritious. One acre in sowed peas is worh six of fodder."

I think if they were drilled they would do better than sowing broadcast and take less peas. I think they would do well in our sunny Kansas, and the time is just coming when we must depend more on some other grass than wild. Garden peas do well here, then why not as a field crop. I have seen heavy crops raised in England, and English soil is not so rich as this. If any one has grown peas here I should like to hear how they succeeded.

We have had a splendid winter; people are plowing for oats and corn, but the weather has changed to dry for cold, which will give us a check. Cattle are looking well in Woodson. A great number of cattle and hogs have been shipped this winter from this part of the country. This is a fine county for stock when people get better fixed for taking care of them.

C. H. NICHOLS.

Woodson Co., Kas.

It is not difficult, generally, for the farmer who loves the farm, and takes a pride in saying so, to determine the calling of his children. If he manages the farm, not so much to accumulate wealth as to provide home comforts and to make home attractive, his children will be ready to pursue the same course. If the minds of his children have been impressed with the proper conceptions of farm life, of the importance of labor and well-judged management—if they have been trained to love the farm, and to regard farming as inferior to no other occupation, they will be apt to become intelligent, progressive, thoughtful farmers.

Varieties from Russell County.

It is a pleasure to see the great improvement and superiority of our state agricultural paper, the "Old Reliable" in comparison with other farm papers of the states; and it astonishes me to see so many farmers that regard farm papers with so little interest, or think the money paid for a farm paper as so much wasted, but they like to read the paper and speak of its contents with much interest. I value the FARMER very much and think it a great benefit to the farmers to look over its contents, and I distribute the papers around to my neighbors, who seem to be very glad to receive them, but when I ask them to subscribe for the FARMER, they too often say they are taking the county paper and cannot afford it; or that they do intend to take a farm paper sometime, but they are too poor to subscribe now. They could gain more than the price of the paper in one year by the experience of other farmers that are always kind enough to exchange ideas. I hope the FARMER may find its way into the homes of all our intelligent farmers.

Russell county still stands at the front in agriculture, healthy climate, and plenty of wind, though there has been less this winter than I have noticed before in a long time. We are looking forward for the spring rain. The wheat is suffering some by the long drouth, or I may say the late sown; that sown in September looks well and covers the ground as green as if it was in May.

Our prospects for coal is very encouraging. There has been two mines working actively since the settlement of the county. It is not first-class coal, but is much better than corn cobs or hay to rely on for comfort on a cold winter's night. There have been several other drifts started in the eastern part of the county which furnish plenty of fuel for home consumption, besides shipping large quantities in the cool part of the year. There has been a vein of twenty-five inches struck on the Saline river which proves to be a superior quality of coal. It is sold at the mines for $8.00 per ton.

There are two lime kilns near Wilson which burn lime for home use, and to ship east and west to the nearest places on the K. P. R. R.

Russell has 20 per cent. bottom land and 80 per cent. upland. Forest, one per cent. The surface of the county is undulating with some bluffs along the rivers. The Smoky Hill and Saline rivers run through the county with plenty of smaller streams. Water is easily obtained from springs or from wells at a depth of 18 to 68 feet.

We are not much troubled with the refugee immigration here. I have only seen one at Wilson and he has left.

I like Kansas very well—the winters are so pleasant and the summer's heat is not so distressing as it is in many places further north. The gentle zephyrs cool the air and make the hottest days, if not pleasant, much more endurable than the scorching heat of Indiana where the air seems like it came from a furnace, with not a breath stirring. It is very healthy here and I think that should be the first thing to look after in looking for a home.

I am very much interested in the correspondence of the KANSAS FARMER, and think the letters are all so sensible and full of good instruction. I am much interested in the articles on tree culture. I think all the farmers of Kansas should plant trees on their land, if not for timber, for wind breaks, for cattle and for dwellings; for the shade and beauty, which is such a comfort and attraction.

I would like to know if the catalpa tree would stand the climate of Kansas. Is it sufficiently hardy? and is the western variety the best for this climate? Could any of the readers of the FARMER tell me where the seed can be bought. Would any of them please to furnish me with a few quarts of some superior well selected seed corn, and I will pay them for it? A great deal depends on pure seed of any kind, and there should be care used in selecting the best.

Stock has done well this winter, and are in a healthy state.

Wheat is 90c; corn 20c; oats 35c; rye 50c; potatoes $1.25; pork 3c gross, 4c dressed.

Some farms are changing hands at low figures. Immigration is dull at present, but a prospect of its being lively in the spring.

T. W. HEY.

If our correspondent will examine the advertisements of seed and agricultural houses published in the FARMER, we have no doubt, by writing to them, he can procure a supply of catalpa seed, also improved seed corn. There are a number of catalpa trees growing in the capitol grounds at Topeka. They seem to withstand the winters here. Occasionally the mercury runs down 20 degrees below zero. Fourteen was the lowest this winter.

Stolen Horses.

I wish to make a suggestion which I think would, if adopted and enacted into a law, have a great influence in obviating what has long been a standing curse to the farmers of this state, if it would not eradicate it altogether. Horse stealing has always been the prevailing crime of newly settled counties, and always will be while it is so easy to dispose of the stolen property. A thief has only to take the animal out of the immediate neighborhood and offer him for one half or one third of his value to find a ready purchaser.

Even if the owner should trace him up and recover his horse at the end of a few months the purchaser loses but little as he has had the use of the horse, and perhaps has had the opportunity to sell or trade him off without warrenty.

Now, if there were no market for stolen horses, there would be but few stolen, and the market can be stopped at once by simply enacting that every man found in possession of a stolen horse should be required not only to surrender him to the rightful owner, but to pay the owner the value of the animal, so as to compensate him for his trouble and expense in tracing and recovering him.

This would be no hardship on the party found in possession of the horse. It would simply compel pnrchasers to look well to the title and honest ownership of what they were buying, and would make the trading in stolen horses almost impossible.

Won't some farmer who has suffered see to it that the next legislature enacts such a law?

S.

Pennsylvania has suffered a loss of half a million dollars from pleuro-pneumonia since its entrance into that state. This has mainly fallen on the farmers and dairymen in Bucks, Chester, Delaware and Montgomery counties.

Merino crosses now furnish by far the larger per cent. of mutton used in this country, and will continue to do so.

Patrons of Husbandry.

NATIONAL GRANGE.—Master: J. J. Woodman, of Michigau; Secretary: Wm. M. Ireland, Washington, D. C.; Treasurer: F. M. McDowell, Wayne, N. Y.

EXECUTIVE COMMITTEE.—Henley James, of Indiana; D. Wyatt Aiken, of South Carolina; W. G. Wayne, of New York.

KANSAS STATE GRANGE.—Master: Wm. Sims, Topeka, Shawnee county; Secretary: P. B. Maxson, Emporia, Lyon county; Treasurer: W. P. Popenoe, Topeka.

EXECUTIVE COMMITTEE.—W. H. Jones, Holton, Jackson county; Levi Dumbauld, Hartford, Lyon county; J. S. Payne, Cadmus, Linn county.

COUNTY DEPUTIES.—J. T. Stevens, Lawrence, Douglas county; T. B. Tyers, Beatty, Marshall county; E. R. Powell, Augusta, Butler county; C. F. Morse, Milo, Lincoln county; A. J. Pope, Wichita, Sedgwick county A. P. Reardon, Jefferson Co., Post Office, Dimond, Leavenworth County; S. W. Day, Ottawa, Franklin County; G. A. Hovey, Belleville, Republic County; J. E. Barrett, Greenleaf, Washington County; W. W. Cone, Topeka, Shawnee County; J. McComas, Holton, Jackson county; Charles Disbrow, Clay Centre, Clay county; Frank B. Smith, Rush Centre, Rush county; G. M. Summerville, McPherson, McPherson county; J. S. Payn. Cadmus, Linn county; Charles Wyeth Minneapolis, Ottawa county; F. M. Wierman, Mildred, Morris county; John Andrews, Huron, Atchison county; George F. Jackson. Fredonia, Wilson county; D. C. Spurgeon, Leroy, Coffey county; James W. Williams, Peabody, Marion county; R. T. Ewalt, Great Bend, Barton county; C. S. Worley, Eureka, Greenwood county; James McCormick, Burr Oak, Jewell county, L. M. Earnest, Garnett, Anderson county; D. P. Clark, Kirwin, Phillips county; George Fell, Larned, Pawnee county, A. Huff, Salt City, Sumner county; James Faulkner, Iola, Allen county; W. J. Ellis, ——— Miami county; George Amy, Glendale, Bourbon county; W. D. Covington, Smith county, P. O. Kirwin; J. H. Chandler, Rose, Woodson county; E. F. Williams, Erie, Neosho county; J. O. Vanorsdal, Winfield, Cowley county; George W. Black, Olathe, Johnson county; W. J. Campbell, Red Stone, Cloud county; John Rehrig, Fairfax, Osage county; I. S. Fleck, Bunker Hill, Russell county; J. K. Miller, Sterling, Rice county; W. D. Rippine, Severance, Doniphan county: Arthur Sharp, Girard, Crawford county; P. B. Maxson, Emporia, Lyon county; A. M. Switzer, Hutchinson, Reno county; S. N. Wood, Cottonwood Falls, Chase county; G. S. Kneeland; Keene, Wabaunsee county.

TO OFFICERS OF SUBORDINATE GRANGES.

For the use of Subordinate Granges we have a set of receipt and order books which will prevent accounts getting mixed up or confused They are: 1st, Receipts or Dues. 2nd, Secretary's Receipts, and 3d. Orders on Treasurer. The set will be sent to any address, postge paid for $1 00.

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

Circular No. 1.

H. ESHBAUGH, HANOVER, JEFFERSON COUNTY, MO.

At the session of the Missouri State Grange in October, 1879, it was resolved that circulars be issued, setting forth the object and purposes of the organization of the Patrons of Husbandry. Also, what has been already accomplished, why more was not done, and what may hereafter be done; and also, the method and principle of true co-operation. This work was referred to the executive committee, and they referred the same to the master of the state grange, with a request to prepare and cause to be printed such circulars as will best subserve the object in view. We will in obedience thereto issue such circulars in sections, giving facts, plain and simple, so as to be clearly understood by all, with a request that they be carefully read and considered, not only at the fireside, but have them read in the grange meetings, considered and talked over, so that all may become conversant with the object of our organization.

Education being a fundamental principle of our order, we should make use of every effort to educate each other; and we believe this to be one of the means that can be successfully employed to accomplish the work. In order to reach desirable results by this method, each circular, "*or section*," should be carefully read, properly considered, well understood and practically applied. With the hope that this will be done, we will venture upon the duty assigned us by giving the first issue.

OBJECTS OF THE GRANGE.

The great object of the organization of the Patrons of Husbandry is to unite the agricultural classes into one grand fraternal association for the general good of all, to cultivate a more social feeling, a stronger moral obligation toward each other, to educate and become conversant with the science of agriculture, methods of business, laws of trade, political economy, and the affairs of government. To become thus educated, elevates the farmers to a higher plane of usefulness, through which they can exert an influence for good to all mankind, and secure protection to themselves and their interest. Removing all feeling of hatred and jealousies, having no sympathy with class and sectional strife, knowing but one class, and that the people, one government, and that of the people and for the whole people.

To emancipate the farmers from the bondage of iniquitous combinations and unscrupulous corporations and set them free, and upon an equal footing with other classes and interests to the end that the blessings of government may be equitably distributed to all, and the burdens shared proportionately by all.

WHAT HAS BEEN ACCOMPLISHED.

Tens of thousands of farmers and their families who have united in this grand national organization of farmers have cultivated that social, fraternal feeling that truly makes them a band of brothers and sisters, working together for the elevation of each, exerting an influence for good in the cause of humanity. They have bidden adieu to selfish partisanism, strife and sectionalism. They have educated themselves as patrons, and to-day occupy positions of high rank in society for usefulness. They have educated themselves and now fully understand every object and principle of our declared purposes, and most effectually defend the rights of the farmers in all places and npon every occasion.

Our demands for justice have been considered by the highest courts of the land, and favorable decisions have been rendered in cases affecting warehouse charges, patent-right claims, transportation privileges, etc. Not all that is desirable has been obtained, but enough has been accomplished to show that more can be done.

Our petitions to the congress of the United States have been respected, and to a limited extent complied with. Our interest is to-day considered, and our demands investigated in the senate of the United States. Many of the changes suggested in the work of the agricultural department of the national government have been adopted and are now in practice.

We have gained the respect, and are exerting an influence in the different departments of our national government, which if followed up properly will positively lead to good results. Many thousands of farmers, through the instrumentality of this organization, are now united and determined to work together to advance the agricultural interest and place it where it of right belongs, in the front rank of all interests and professions, and secure for it a just proportion of representation in the halls of legislation, and in the affairs of government, state and national.

Why more has not been done is because we have been heretofore acting too selfishly, not having been sufficiently united to accomplish more desirable results. Often the idea of self was made to outweigh the wishes and judgment of the masses. Selfish and impracticable schemes were set np against the matured deliberation and thoughts of those who had devoted years of hard study to the work. Self was frequently held in high esteem and must first be served, even if at the sacrifice of everything else. Under this non-co-operative system how could we expect greater success. Could not the several state granges with proper effort have accomplished as much in their state government as has been accomplished by the national grange, and in the national government? selfishly neglect in not uniting and co-operating together is the sole cause why more has not been accomplished.

What may hereafter be done depends much upon our future efforts. We must educate each other to understand the work alike, become united and co-operate together to accomplish the same object. Our interests are alike, and require like care and protection to shield them from encroachments made on them by combinations and corporations, who are unjustly exacting nearly the entire profits of agriculture. To remeve the errors and restore the equilibrium of justice, requires united action and earnest labor, and while individual efforts would prove failures co-operative exertion will certainly lead to triumphant success. Every promise made by the organization and every reform desired by its members can all be obtained by co-operating and acting together. The farmers in this organization have the power within themselves to establish justice whenever they unite co-operatively, where legislation is required to accomplish the object, you have the power in your own hands to say who shall be your legislators in state and nation.

Patrons, I can assure you that the order can accomplish all that it has promised and all that is desired, if we, as members do our part. Our duty, our interest, our self-respect and our manhood demand that we do this, and if we do, all will be well and success secured. At no time in four years have the prospects of the order been as good as they are to-day. More and better work is now done than ever before. Encouragements were never better. The social and educational success has united the membership and they work together for the same good object now within reach.

The annual appropriations for river and harbor improvements, subsidies for steamships and other like uses, amounting to many millions, are largely drawn from agriculture, besides the direct tax it is made to bear for the support of the government; yet we are told by political Solons that it is absurd to trouble the government with the demand for anything that concerns agricultural production. In the last twenty years the total yearly sum of exports has been made up more than three-fourths of soil products, and less than one-fourth of all other values, including the precious metals, manufactures of every kind, and products of the mines. Here is an industry vastly more important than all others in its magnitude; one industry that contributes more than all others to the support of the government—yet we are told it is of no consequence—it ranks with shoemaking! We shall see presently.—*Husbandman.*

Advertisements.

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

Eggs, Eggs.

From pure Light and Dark Brahmas. Write to F. E. MARSH, Manhattan. Kas.

Eggs ! Eggs !

From pure-bred Black Spanish, white Leghorn, Plymouth Rock and Light Brahmas, $1 25 per dozen or 2 dozen for $2. Mammoth Sunflower Seed for Poultry, 10c per packet. H. GRIFFITH, Topeka, Ks,

Eggs for Hatching.

L. & D. Brahmas, Buff Cochins, Plymouth Rocks, Brown & W. Leghorns, Pekin and Aylsbury ducks' eggs warranted fresh and true to name. A few trios each of the above fowls for sale. All of the best and most fashionable strains. I also raise and offer for sale

8 Varieties of New Seedling Potatoes.

All of the best; hardy, prolific and good keepers: Alpha, Rulz, Burbank's, Snowflake, Early Ohio, Gennisee County, King and Improved Peerless.

I. DONOVAN, Fairmount, Kansas.

Write for prices, etc.

Pure Bred Poultry

Of the following breeds for sale by

J. M. Anderson, Salina, Ks

Bronze Turkeys, Pekin Ducks, Partridge Cochins and white Guineas. Eggs from any of the above breeds, and from Silver Duckwing Bantams. Write for prices.

HIGH CLASS POULTRY,
O. C. GRAVES, Brownsville, Mo.
(NEAR SEDALIA.)
Breeder & Shipper.
EGGS FOR HATCHING
In Season.
Send for Illustrated Catalogue, Free.

WOOL-GROWERS

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

Bee Hives,

Italian Bees

Eclipse, New American, Langstroth and Simplicity hives complete or ready to nail. Full colonies Italian Bees in good movable comb hives Honey Extractors, Bellows Smokers, Bee Books, &c.
Descriptive circulars sent free.
Address F. A. SNELL,
Milledgeville, Carroll Co., Ill.

To Bee-Keepers.

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

HOGS.

SouthernKansas Swine Farm.

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

Shannon Hill Stock Farm

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

A. Z. BLODGETT,
WAUKEGAN. ILL.,
IMPORTER AND BREEDER OF
CLYDESDALE HORSES.
Imported and pure-bred stock for sale, Send for Catalogue.

Egyptian or Rice Corn.

Pure seed of the Egyptian or Rice corn for sale: Address, enclosing stamp, S. W. BOYNTON,
Kinsley, Kas.

Rice or Egyptian Corn.

A choice lot of this seed corn for sale; $2 per bushel. Also Pearl Millet seed at $5 per bushel. Address
Root & Hollingsworth,
Kinsley, Edwards Co., Kas.

Breeders' Directory.

BLUE VALLEY HERD.—Walter M. Morgan, Hereford Cattle and Cotswold Sheep, Irving, Marshall ount y, Kansas. Choice Young Bulls For Sale.

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

HALL BROS, Ann Arbor, Mich., make a specialty of breeding the choicest strains of Poland-Ch Suffolk, Essex and Berkshire Pigs. Present prices ½ less than last card rates. Satisfaction guaranteed. A few splendid pigs, jilts and boars now ready.

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

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

MILLER BROS, Junction City, Kansas, Breeders of Recorded Poland China Swine (of Butler county Ohio, strains); also Plymouth Rock and Brown Leghorn Fowls. Eggs, $1 50 per 13. Descriptive Circular and Price List free.

Nurserymen's Directory.

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

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

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

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

Dentist.

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

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

POULTRY BREEDERS TAKE NOTICE.

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

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

M. W. DUNHAM
Has Just Imported 36 Head
FOR HIS OAKLAWN STUD OF
PERCHERON-NORMAN HORSES,
Another Importation
WILL ARRIVE ABOUT MARCH FIRST.

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

More than 200 Stallions & Mares,

Imported from best stud stables of France.

Winners of First Prizes in Europe and America. Awarded First Prizes and Gold Medals at the Universal Exposition at Paris, 1878. First Prizes and Grand Medals at entennial Exhibition, 1876.

The public appreciation of its merits is indicated by the great demand for stock from every part of the country. During the past twelve months, the provinces of New Brunswick, adada, and the states of New York, Pennsylvania, Ohio, Indiana, Illinois, Michigan Wisconsin, Minnesota, Iowa, Nebraska, Kansas, Texas, Louisiana, Colorado, California, Nevada and Oregon and Utah; Washington and Idaho Territories have drawn supplies from its stables.

100 page Catalogue—finest thing of the kind ever issued, 25 pictures of stallions and marcs, sent free on application. M. W. DUNHAM, Wayne, DuPage o., Ill

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

THE

Beautiful Indian Territ'y.

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

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

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

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

JAS. D. BROWN,
Texas and Kansas Emigrant Agent.
St. Louis Mo.

THE KANSAS FARMER.

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

TERMS: CASH IN ADVANCE.

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

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

TO SUBSCRIBERS.

Subscribers should very carefully notice the label stamped upon the margin of their papers. All those marked 11 expire with the next issue. The paper is always discontinued at the expiration of the time paid for, and to avoid missing a number renewals should be made at once.

Great Inducements to Subscribers.

We offer the KANSAS FARMER to single subscribers TWO YEARS FOR TWO DOLLARS payable in advance. We wish to place the FARMER in the hands of every farmer in Kansas and increase its circulation beyond the borders of the state, and to this end we offer the above inducement which is virtually reducing the price to single subscribers to one dollar a year, our only advantage being the advance payment for the second year. Club agents will be allowed to include two year subscribers in making up their clubs of $10.00. Five two year subscribers paying $10 will entitle the agent to a copy of the FARMER for one year; or a mixed club of one and two year subscribers, when the money for his club amounts to $10, the agent will be entitled to a copy free for one year. Now let us see what our agents can do in raising clubs before the spring opens. Six weeks yet remain to work for clubs and a free copy of the KANSAS FARMER.

What Are Our Congressmen Doing For the Interest of the Farmers and Stock Breeders of the West?

This is a question of momentous importance. and one to which we fear the answer will not be satisfactory to the thoughtful and intelligent portion of this large class of intelligent persons. The pity is that there is such a large portion of them who are not thoughtful and intelligent, and our political law making, office holding class have little regard for their wishes or opinions, and no fear whatever of neglecting their interests, while they waste precious time in president making and in "setting up" plans to keep themselves in office and retain their hold on the public purse.

One of our Kansas congressmen has been wasting a portion of his time at least, in making vulgar, abusive speeches in vindication of his injured honor, which speeches go very far in giving color to the truth of the most damaging statements of his political opponents. Such a vulgar speech as made by Mr. Ingalls at Atchison a few evenings since, disgraces the state in every quarter of the country, and will work more material injury abroad to the morals and manners of the state of Kansas, and through these mediums to the material interest of our commonwealth, than the drought and grasshopper swarms of 1874. No man should darken the doors of congress on whom there could be cast even a suspicion of having bought his way to a seat in the law making councils of the nation. In place of this, however, being the exception it is well nigh the rule.

And this brings us to the point we wish to direct attention to, which is the wide spread complaint that constantly goes up, of the neglect of the men who fill our legislative and congressional halls, of the most important matters of public interest, especially of the interests of agriculture. General Keifer of Ohio, has introduced a bill, in congress, the object of which is to stamp out, and guard against in future, the cattle plague, which is a constant menace to one of the greatest interests of the country. But will the large majority of congressmen know enough, or care enough about so important a matter as to consider it and pass such a bill? We doubt it. They have so little concern for the most vital interest of agriculture, and hold the farming class in so much indiffence, that they will scarcely give a thought towards providing measures to stay the ravages of a plague that may, in a few years, destroy a thousand millions of farm property.

It is high time that the farmer should play Hercules, and begin to clean the political Augean stable of blackguards, subsidized, bribe-taking lawyers and mercenary politicisns whose hands are defiled with all manner of uncleanness.

We have cited but one pressing interest of agriculture which has been long neglected by the government. There are many others almost as urgent. None of them will ever be attended to till our more intelligent farmers rescue their less enlightened brethren from the toils of their political party masters, and when such disgusting speeches are delivered by congressmen to constituents or any where else, as that of Mr. Ingalls' it is an evidence that our political affairs are sick unto death.

Improvement in Quality of Meat.

Science is making great inroads in every branch of industry, and those who are guided by her lights are fast outstripping the devotees of old time practices. In agriculture, within the last quarter of a century the advance has been very marked, and the application of science on the farm has proven as beneficial as in every other branch of industry. But the reform has only begun. Like the first sweep of the telescope across the heavens, the wonders revealed, are but partially understood. Time is necessary to arrange, classify and utalize the wealth revealed, before it can be made most available.

In the improvement of live stock the advance has been steady and the results exceedingly profitable, but there is still higher Alps to climb. How to rear the quick maturing, easily fattened animal is not all that the demands of the times require. Fat is no longer considered a food fit for civilized man, and the art of feeding to extreme fatness at the expense of lean flesh has turned out to be a lead in the wrong direction. Grease is not wanted in such abundance, as formerly. The laboratories of nature in the bowels of the earth are supplying a cheaper and better article for many uses in the arts, than can be obtained from animals or vegetables. But the demand for meat as food is steadily increasing, and with that increase grows a taste for a better quality, and more nutritious article. The fat that is necessary to the production of the best steaks and roasts, is not wanted in thick layers, but evenly distributed through the lean parts, in small cells and thin strata.

Such meat cannot be made without the proper muscle forming food is provided in abundant quantities, and the animal must also be bred from a strain that is predisposed to store flesh rather than fat. Animals that incline to fatten too easily must be avoided in future by feeders and breeders who expect to rank first in their profession, and produce stock that will be preferred, most sought after and command the highest price. The feasibility of propagating a class of stock that grow rapidly without laying on fat, is being discussed among enlightened feeders, and the demand for such beef will increase steadily, keeping ahead of the supply.

The natural feed of all animals that chew the cud, and to which we look for our supply of beef and mutton, is grass. The most perfect food is found in the green state, in the blades and stalks of plants, and in roots. In the ripened grain a larger percentage of oil is stored, and when grain is relied upon as the chief food for ripening up animals intended for the bucther, it is inevitable that an undue proportion of fat must be stored up by the beast, and prove very unprofitable for the consumer and butcher, and must eventually react on the feeder. In this connection it will be seen that there is a necessity for the use of more green food and less grain and concentrated fat producing provender in feeding animals for the beef market, and that the most successful feeders of the future will have to modify their system of feeding. In the heavy feeding districts where hay and corn constitute the bill-of-fare, with scarce a change in this formula, the introduction of green food in what is termed—and too literally true—the fattening process, a greater variety of food will have to be used and that which contains less fat and more flesh building constituents. Storing fodder green, on the ensilage, or French plan, is likely to largely supercede, among feeders of the best stock, the exclusive use of dried hay. When the art of producing uniformly marbled beef is acquired, the men who apply science to beef making and turn out an article of uniform quality of excellence, the feeders of the best marbled beef will become as well known and distinguished as the makers of gilt edged butter, and their products command prices far above the ordinary market prices. There is no conceivable reason why feeders of beef should not be able to produce qualities of meat, which would sell on the merits of their name, as many lines of manufactured goods sell by the trade mark. In the production of superior meat the field is open to science and a higher order of intelligence, as it is to the production of any other commodity that enters into the consumption of man, and with the same tempting reward for the achievement of excellence. The producer of inferior stuff will grope along in the glutted market, receiving a mere pittance for his toil, while the maker of a strictly prime article will command high prices and a ready sale for his goods. The new standard of beef is the prize to be contended for among breeders and feeders. Fat in future is at a discount, while the demand for more lean meat calls for the light of science in feeding.

Forestry.

Tree culture is at present attracting a great deal of interest in Kansas, and bids fair to become one of the leading branches of business, or an important adjunct to opening a farm on the prairies. It seems certain that but indifferent headway can be made in fruit raising till the fruit trees are protected by timber belts and screens to shut off the "blizzards" that come down from the north, and in an hour destroy the most promising prospects for a bounteous crop of fruit. Fruit trees grow thriftily and bear abundantly when the sudden cold waves do not interpose to blast the tender buds which the bright sunshine and balmy southern breezes tempt to advanne too far in February and March. Four and five years of every six the fruit is wholly destroyed or seriously injured by the sudden changes and icy gales which sweep over the open prairies.

The article on "Forestry," by Martin Allen, of Hays City, from the advanced sheets of the forthcoming report of the State Horticultural Society, which will be found in this issue of the FARMER, will prove a valuable paper to thousands in the state who will study the advice and be governed by the information it contains.

Amber Sugar Cane.

As the time is approaching for planting cane seed, we desire to call the attention of farmers to this valuable variety of cane. We believe its value is but little known, and not fully appreciated when known, because its value for animal food is not understood. While the cane will make a superior article of syrup, its value is not limited to this use. The grower of the cane may not only harvest his syrup and sugar crop, but at the same time harvest at least 20 bushels of seed per acre, which is as rich and nutritious for feeding cattle or horses, as common field corn, and equal to any grain for fattening hogs. Besides its value for these purposes, it has the merit of growing and producing a crop in drouthy seasons, as well as Egyptian corn, which is a variety of the cane species. We suggest to our farmers the importance of considering the value of this product with a view to its culture, not only for its saccharine qualities, but value for animal food.

Sheep Statistics.

If our correspondents will give us the names of those in their neighborhood, or as far as they know in their counties, who are making sheep-raising an important part of their business, the information might prove valuable as showing the importance of the sheep business and its rapid advance in the state. We would also like to have the names of the principal sheep owners and breeders in Missouri and Colorado.

The season is rapidly passing when subscriptions can be taken with ease for newspapers. Will our friends canvass this month, thoroughly, their respective localities and send us the names they can.

Patrons Life Assurance.

I promised to send such information as I should obtain of interest to our members in the order of P. of H. Presuming all interested would like to know how the life assurance association, organized at the meeting of our state grange, is prospering, I hand you a statement of membership for publication, viz: Coffey, 1; Douglas, 1; Davis, 1; Doniphan, 4; Greenwood, 2; Jackson, 36; Jefferson, 5; Johnson, 84; Linn, 5; Miami, 7; Riley, 9; Rush, 2; Sedgwick, 1; Shawnee, 52; Washington, 1; Wabaunsee, 7; Woodson, 1; Lyon, 15; Lawrence Co., Missouri, 1. Total, 235.

To which number we add all of the members of the old association who are clear of the books, whenever the two lists together will make five hundred, we shall be ready for work.

I had hoped the five hundred applications would have been received before this, but it seems that our brothers and sisters either have not a correct knowledge of the benefits of life assurance, and especially of this, or they do not care to be included in the list of members who are pledged to assist each other's families in that most trying time, when the head of the family shall be taken from them by the stern messenger—death. What member is there in our order but would contribute the small amount called for to the distressed family of any patron, if appealed to personally? We can lose nothing by the organization, as we create a fund only sufficient to meet one death at a time, and the officers are bonded for treble the amount of money coming into their hands at any one time.

No man can be called prudent who neglects to insure his house against fire, and why not exercise the same care for his family, so far as precautionary matters are concerned, by combining with others to assist the families of the association in case of death? I speak of the old organization. The law provides that the members of the old who are clear on the books of that organization, shall be transferred to the new. The members can see by reading Art. 12 of the constitution, as published in the proceedings of the state grange last session (one copy of which will be mailed to every secretary of working granges and one copy sent to the W. M. or W. Sec'y of any dormant grange in this state, on application to me). All who will carefully read the report of the secretary as published in the proceedings, that the insurance provided by the state grange is the *safest* and *cheapest* life insurance ever offered as a business proposition; and again, it is the carrying out of the principles of co-operation and charity, as well as our fraternal obligations. Reader, if you have not already filed your application for a policy, why not do it at once, and help to fill class No. 1 at once. There can never be a better time.—*P. B. Maxon, (Sec'y,) in Emporia Leader.*

Patrons' Life Assurance.

ED. FARMER: Permit me, through your paper, to again call the attention of county deputies, officers, and members of subordinate granges, to the life assurance department of the Kansas state grange, provided for by Art. 12 of our state constitution, and to urge upon all the importance of prompt action in securing and forwarding to Secretary Maxon, names of applicants and money at an early day.

The state grange wisely provided that no policies should issue, or risk be assumed, until five hundred applications shall have been received and the money paid into the treasury, and as shown by Secretary Maxon's report, published above, 235 names, with money, have been received between the close of our state session and February 24th, to which add the number to be be transferred from our old life association, and we have about 300. This is doing well, considering the time covered by the report—two months and ten days.

By an examination of the report of our worthy secretary, above referred to, it will be found that six counties have furnished over 200 of the 235 applicants reported, which is, no doubt, attributable to the fact that the law providing for an "assurance department," has but recently—within two weeks—been furnished our granges. Now that the law, which furnishes all the information necessary to a correct understanding of this departmeut, has been furnished our grange officers, I trust they will see to it, *at once*, that the subject is brought before the membership, and, if necessary, appoint a committee in each grange to solicit names and forward, with money, direct to Secretary Maxon. Prompt action on the part of our officers will, in my judgment, secure the number necessary to establish this department at an early day. Every grange can, and should, furnish a few names. Make this subject a specialty at your next meeting; and we shall see what a little concert of action will accomplish.

I also desire to call the attention of deputies and officers to an error in the printed copy of our state constitution: Section 2, Art. 11, relating to fees, should have been printed "*three* dollars for men and *one* dollar for women." All officers will correct their copy, and govern themselves accordingly. WM. SIMS,

Master Kan. State Grange.

Topeka, Kansas, March 8, 1880.

Catalpa Notes.

BY PROF. J. P. STELLE, MOBILE, ALA.

In my article on catalpa, which appeared in the FARMER of February 4th, the printers got the botanical name of the tree slightly wrong—it should have been *catalpa bignonioides*. This is a matter of no special importance to the general reader, of course, and I only mention it because certain "scientists" have written asking me if I am offering some new species of catalpa to the people of Kansas. I am not.

Speaking of new species reminds me that a number of correspondents have asked for a paper on the different species of catalpa, and not a few have written about a certain "hardy species" called *catalpa speciosa*. With all due deference to the excellent and intelligent people who have been carried off on this new-species current, I must beg leave to state that I know of but one species of catalpa native to the United States, and that I do not think any other person *knows* of more. Those patrons of the FARMER who are receiving small packages of catalpa seeds from me, need have no fears as to hardiness—the trees will prove equally as hardy as if the seeds had been ordered from some dealer who gathered his stock in Illinois; all of which I may explain at more length in a subsequent paper.

PROF. J. P. STELLE.—*Dear Sir:* I have been very much interested in your article to the KANSAS FARMER, on the subject of timber trees. I never saw the "sour wood," but the catalpa is with me a favorite. Having lived most of the time since 1852 in Cedar county, Iowa, I have carefully studied its variations of success there. In sheltered localities some of the trees have grown to beautiful and well formed bodies, highly desirable for almost any use on a farm; but on the high, bleak prairies they did not do so well. They would make a most prodigious growth in a season, but did not seem to ripen sufficiently to stand the long and hard winters of that region. My impression is that the catalpa will do well in such a climate as we have in Kansas.

Your offer to send seeds of catalpa free, seems extremely liberal—in fact I cannot see where you get your pay. * * Gladly would I hear from you often through the columns of the KANSAS FARMER; these plain, practical hints are what we want to advance the interests that grow from the soil. C. W. ABBOTT.

Barclay, Kansas, Feb. 7, 1880.

Another correspondent tells the story where the pay comes from, as follows:

PROF. J. P. STELLE.—*Dear Sir:* I have read your catalpa article in the KANSAS FARMER of the 4th inst., with much interest. Herewith find stamp for postage on a package of the seeds. If I succeed in raising trees, (and I hope I shall), I shall forever remember you by them. J. H. REINTS.

Odin, Kansas, Feb. 9, 1880.

That strikes the nail exactly on the head. If I succeed in locating ten thousand catalpa trees in Kansas, they will stand as that number of monuments to my memory in that state, for the owners of the trees will not soon forget how they obtained them. Besides, I always have had a kind of mania, so to speak, for spreading growths beyond their natural range. Twelve years ago, while connected with the *Journal of Agriculture*, St. Louis, I scattered hundreds of strange trees over Missouri, where they are now growing and doing well in a very large number of cases. I often hear of them—of the size to which they have attained, and so on—and that pays me what I consider a rich interest on the little trouble invested in sending out the seeds.

PROF. STELLE.—*Dear Sir:* Enclosed stamp is to pay postage on a package of catalpa seeds. If I succeed in getting a start of the trees, I will send you money enough to pay you well for your trouble. It must cost you considerable money to send out so many seeds.

JOHN V. MANUEL.

Wakefield, Kansas, Feb. 1, 1880.

No, don't send money—it is all a "free gift." Besides it don't cost me much to send out the seeds—I "manage" that thing. You will usually find with your package of seeds some kind of business circular—taking that along has paid the expense of putting up and mailing. For instance, with the catalpa seeds you find a catalogue of the "Southern Plant Company," Citronelle, Ala., offering to sell southern plants, etc. This company being anxious to scatter its catalogues among the people of Kansas, cheerfully puts up and mails the seeds for the privilege of having the catalogue go post free with the packages; consequently, I am out only the cost of the seeds and envelopes, which is but a small matter. But for this kind of "managing," I would be forced to hire some one to put up and mail the seeds, which would amount to considerable outlay, of course. As it is, I turn the letters and stamps over to the company so fast as received, and that is all there is of it. There is no money in it to me, and never can be, but while this is the case, there is what money could not do more than buy—a great deal of pleasure.

A large number of correspondents have sent extra stamps with their orders without giving any reason for the act; evidently intending them as some compensation to me. To all such I have ordered sent extra packages of seeds of something else—usually those of American holly (*Ilex opaca*), which, in my opinion, is next to catalpa, at least as a valuable tree for culture in Kansas. It is one of our most beautiful broad-leaf evergreens, and will make a grand windbreak. Is hardy as high as Maine. Will tell all about it through the FARMER, in a short time.

PROF. STELLE.—*Dear Sir:* Please send me a small package of catalpa seed, and oblige a reader of the KANSAS FARMER, which, by the way, is the very best farmers' paper published in the west. I hope you will continue to write for it, as I like your plain kind of style.

J. A. HOOD.

Hall, Kansas, Feb. 15, 1880.

PROF. J. P. STELLE.—*Dear Sir:* I was much pleased with your paper on catalpa, and after I have tested the seeds you will send, I shall report results through the KANSAS FARMER. I have just finished working a white oak tree that rather beats Mr. Burney's catalpa. It has made for me 335 fence posts and five cords of wood. How is that for Kansas?

JAMES CARROLL.

Cross Creek, Jackson Co., Kan., Feb. 10.

Important to Book Agents.

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

Washington, D. C., Jan. 16, 1880.

H. H. Warner & Co.—Dear Sir: I write to say that after having taken your Safe Pills and finding them all that is claimed for them in your circular, I cheerfully recommend them as the best pills in the market.

JOSEPH PRATHER,
409 M. street, Washington, D. C.

Water In Its Relations to Agriculture.

The importance of water to growing plants cannot be overestimated. Without it no plant can grow; even air plants that thrive without any connection with the soil draw moisture from the air, and without this they cannot thrive.

Water exists in three different forms—solid, fluid, and gaseous. In all these it has a very important influence on growing vegetation. It is true, as a rule, water in the form of ice is a foe rather than friend to vegetation; and yet by its effects on the soil it exerts very important influences on subsequent crops. Every one is acquainted with the fact that the freezing and thawing of the soil tends to reduce it to a fine tilth, leaving it fine and mellow. This effect is brought about by the peculiar manner in which the water in the soil is frozen. This is not by forming small particles of ice in every little pore of the soil, but rather by collecting together and forming thin luminæ or plates of ice.

In freezing, water expands about one-seventh to one-fifteenth of its bulk. This expansion tends to push the particles of soil asunder, and when thawing takes place they fall apart and the clod is reduced to a friable soil.

Another form in which frozen water has a decided influence on some kinds of vegetation, is that of snow. Perhaps the most important effects of snow on vegetation is by serving as a protection from severe freezing and from drying winds. A crop of winter grain that is covered up with a good layer of snow, not only is protected from severe freezing, but it actually thrives and grows under its winter winding sheet, if the layer of snow be not so deep and compact as to smother the young plants.

Another benefit resulting from snow is that in falling through the air it absorbs and brings down with it certain gases, such as nitric acid, in the form of ammonia, and others, that are thought to be directly beneficial to the crops that are buried beneath it. The natural result is that the snow that falls first contains the largest proportion of these gases, and this of course comes in immediate contact with the growing plants. It is thought by many that considerable benefit is thus derived, by the crop, from every snow that falls; and I see no reason to doubt the correctness of the theory.

We thus see that water in the solid form may be, and frequently is, of considerable benefit to crops; yet it cannot be said that under any circumstances it is absolutely necessary to their existence or growth. They do live and thrive without it.

The most that can be said for it is that under certain conditions frozen water is beneficial and not injurious. It is in the liquid state that water is of the most importance. It must be present in the juices of plants else they cannot grow. It is the water in the soil that dissolves the mineral elements of the soil that are essential to the growth of plants, and carries them by the circulation of the sap into all parts of the plant.

The amount of water held by the soil has a very important influence on the growth of plants. Thus we find that a soil that is permanently wet will be clothed with a different class of vegetation from that which flourishes in a soil that is very dry. Soils differ greatly in their power to absorb and also to retain moisture. No soil when fully saturated is well adapted to the growth of useful crops. When the pores of the soil are all filled with water it excludes the air, and the roots seem to be incapable of performing their proper functions. Plants will endure the full saturation of the soil for a few hours without appearing to suffer any inconvenience, but if continued for the space of several days, it is quite likely to prove injurious.

But while a superabundance of water in the soil is detrimental to useful crops, a lack of moisture is also injurious. The amount of water in the soil that is absolutely necessary to the healthy and profitable growth of crops, varies with different crops and different soils, but it frequently is reduced by drouth below that amount.

In the absence of a sufficiency of water in the soil to meet the wants of the crop, it appears that a sufficiency of the elements of plant food are not dissolved, or if so, they are not conveyed with sufficient rapidity to the different parts of the plant to meet its requirements. Water is the great solvent of these elements, as well as the great vehicle by which they are carried to those parts of the plant where they are needed. Where the supply of water is too small to meet these demands the growth of the plant is retarded and the crop diminished. Crops are not likely to be injured by copious rains provided all surplus water can readily pass off through the subsoil, though the amount of water in crops grewn under such circumstance, will be greater in proportion to the solid matter than those grown in a dry season. The principal means at the command of the farmer for the control of the supply of moisture for his crops, are irrigation and draining. Of this latter I may have something to say in a future article, and in that connection will speak of the influence of the gaseous form of water on vegetation. L. J. TEMPLIN.

A Kansas Short-Horn Herd.

Not long since I visited at Leavenworth the short-hern herd of J. C. Stone, Jr. As the short-horn interest has become so large in this state; doubtless your readers would like to see some notice of this herd. Especially, as it is mostly to be disposed of at public sale next May, of which due notice will be doubtless given in your advertising columns.

There is in the herd a considerable number of promising young bulls. Among them is the Duke of Newham, descended from imported Lady Newham and sired by the famous 14th Duke of Thorndale, which sold for $17,900. This Duke of Newham is a beautiful red two year old, and I think the finest animal of his age I ever saw. Although his breeding is so good, in fashionable blood, he must yield the palm to Kirklevington Lad 32,982, which is the third generation of descent from the cow Kirklevington 11th, with three top crosses of 10th Earl of Oxford, the 3d Duke of Oneida and the 14th Duke of Thorndale. Then comes a fine lot of yearling bulls of high bred sires. Six of them are by the pure 4th Duke of Hillhurst, which, when a calf eight months old, sold for the modest sum of $12,000.

If we cannot expect to see in this state, animals which are sold at such long prices, it is well that opportunity exists to obtain some of their descendants for the improvement of our herds.

Then, as would be expected, the dams of these young bulls are finely bred. Among them are a young Mary with six Duke top crosses. Two pure Princesses and one imp. Georgian Oxford. Then come dams of some of the older favorites of breeders, a Belina, a Lady Elizabeth, a Loran and two Cambias.

There is also in the herd a lot of good heifers of strains of blood similar to those of the bulls. By the time of sale most of them will be in calf to Duke of Newham and a young Mary Duke.

This herd has evidently been gathered with much cost and care, and when distributed among the cattle men of the state, cannot but largely increase the value of Kansas herds.

Mr. Stone's last year's sale, I think, was very fairly conducted, but its results were unexpected. Four fancy farmers, Leavenworth men of wealth, purchased a large part of the herd at prices they were able to pay, and I understand they are proud of their stock. Probably their wants were largely supplied and as this herd is more select and fashionably bred, it may be that those of us with shorter purses may be able to buy some good things this year.

J. H. B.

Lawrence, Kas.

Black-Leg.

ED. FARMER: I have just read Mr. Washburn's experience with black-leg—a disease so destructive among young cattle. Now I will give him mine:

About the year 1868, I lost the first by that disease. After the first one died, I began to look around for a remedy that would cure it. I found quite a number, from time to time, in the FARMER and *Western Rural*, all said to be sure cures. I made use of the greater number of them in the six years that followed, but never cured a calf, and have no personal knowledge of any animal affected with black-leg, that ever recovered. I haue tried the mixture of salt, sulphur and nitre, placed where they had free access to it, as a preventive, but it proved to be a failure, and I had come to the conclusion that it could not be cured. If Mr. Washburn's remedy will do what he claims for it, it will be worth thousands of dollars to the farmers of this state, and should have a fair trial. If it proves a success, he should be looked up to as a great benefactor of the stock-raisers of Kansas.

J. M. JOHNSON.

Harveyville, Kansas.

Flax.

Several men have given their experience in flax-raising. Now I want to know if it will do to sow it with the screw-harrow seeder, the same as wheat, regulated so as to sow the proper amount, or will it put it in too deep on last year's breaking?

I like the directions given by our friend Experimenter, except the threshing. I prefer a vibrator, properly fixed, which will thresh and clean, perfectly, two hundred bushels of dry flax per day. I have raised flax for ten years and have found the vibrators ahead of all other machines for threshing it. A. READER.

Barclay, Kansas.

Sun Flowers.

ED. KANSAS FARMER: I notice in your issue of the 11th inst. an article upon "The Sun Flower as a Crop." I have long been aware of the value of the seed as a food for fowls, and a few years ago sent east for seed, but they did not do well. The season was dry, and they never got above three feet high, and I did not even save any seed.

The native sun flower is such a nuisance here that we have a prejudice against the very name of sunflower which will be hard to overcome. Many contending that they are the same plant. And one object of this note is to enquire about that. Can you enlighten me on this point? I never saw a wild sun flower east of the Mississippi River, and they were a great curiosity to me when I first met with them. Our laying hens need an oleaginous class of food in the winter such as this plant produces, and will it pay to raise a patch of them alone.

WM. PETTES.

Saline Co., Kas.

We submitted the above inquiry to Mr. Jas. Vick, of Rochester, N. Y., the elaborate florist and received from him the following in reply:

"The common sun flower cultivated in our gardens here, is *Helianthus annuus*, and is a native of South America, within the tropics. There are many species of *Helianthus* growing naturally in all parts of this country, but we know of none of them that have been considered worthy of cultivation for their seed, as is the case with *H. annuus*. A Russian species, commonly called New Mammoth Russian, is much larger than the common one and by many is preferred for production of seed. Either of them are good for this purpose, but of their economic value in comparison with corn we are not apprised. Yours, very respectfully,

J. VICK."

Hardy Catalpa Seed.

ED. FARMER: If any patrons of the FARMER have Hardy catalpa seed for sale, they should make it known through the FARMER.

Twin Ranch, Edwards Co., Kansas.

Gilt-Edge Butter Maker

makes July, August and Winter butter equal to best June product. Grocers pay three to five cents a pound extra for butter made with this powder. Guaranteed harmless. Increases production six to ten per cent. Reduces time of churning one-half. Sold by druggists, grocers and general storekeepers. Send stamp for "Hints to Butter-Makers." Address, Butter Improvement Co., Buffalo, N. Y.

Catarrh of the Bladder Cured.

Henrietta, Monroe Co., N. Y., Jan. 5, 1888.

H. H. Warner & Co.—Gentlemen: I am a man 67 years of age; have lived in Monroe county, N. Y., most of my life, and believe there is no man of my acquaintance who would doubt any statement I might make. I have been a terrible sufferer of catarrh of the bladder for years. Hearing of a number of cures from the use of your remedy, and after taking a few bottles of your Safe Kidney and Liver Cure, I was not only relieved but found myself cured. THOMAS OWENS.

A Fool Once More.

"For ten years my wife was confined to her bed with such a complication of ailments that no doctor could tell what was the matter or cure her, and I used up a small fortune in humbug stuff. Six months ago I saw a U. S. flag with Hop Bitters on it, and I thought I would be a fool once more. I tried it, but my folly proved to be wisdom. Two bottles cured her. She is now as well and strong as any man's wife, and it cost me only two dollars. Such folly pays.—*H. W., Detroit, Mich.*

Wanted.

Job of prairie breaking. State character of soil, location and price you are willing to pay. Address P. A. R., KANSAS FARMER, Topeka.

Wonderful Success.

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

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

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

A cough, cold, catarrh or sore throat requires immediate attention, as neglect oftentimes results in some incurable lung disease. "Brown's Bronchial Troches" will almost invariably give relief. Imitations are offered for sale, many of which are injurious. The genuine "Brown's Bronchial Troches" are sold only in boxes.

Wanted.

Onions, Cabbage, Snowflake and Peachblow Potatoes, Red Turnip Beets, Butter and Eggs. Highest price will be paid for the above at Ripley's Cash Store, Topeka.

Mr. Bartholomew

Has just returned from the East where he bought a very heavy stock—at large part being contracted for last October and November, prior to the advance in prices, so he owns his Stock on such terms as to enable him to offer

Greater Advantages

to his patrons than ever before. Throughout the Stock—Black Silks, Calicoes, Bleached and Unbleached Muslins, Ginghams, Tickings, Shirtings, Jeans, Cottonades, Ducks, Denims, Cheap Dress Goods, Black Cashmeres, Hosiery, Underwear, Gloves, Kid Gloves, Table Linens, Crash, White Bed Spreads, Ladies' Skirts, Ladies' Muslin Under Garments, Collars and Cuffs, Neckties, Ruching, Brushes, Combs, Men's Silk Dress Scarfs and Ties, Fine Dress Shirts, Overalls, Overshirts, Shawls, &c., &c.

Besides lots and lots of 5 cent Goods.

Go and see them. Always Welcome.

Bartholomew & Co's

"CHEAP CASH STORE."

177 Kansas Avenue, : : Topeka, Kansas.

The Marsh ague cure never fails. Price only 50 cents—liquid or pills.

Honored and Blessed.

When a board of eminent physicians and chemists announced the discovery that by combining some well known valuable remedies, the most wonderful medicine was produced, which would cure such a wide range of diseases that most all other remedies could be dispensed with, many were sceptical; but proof of its merits by actual trial has dispelled all doubt, and to-day the discoverers of that great medicine, Hop Bitters, are honored and blessed by all as benefactors.

Chew Jackson's best Sweet Navy tobacco.

8 and 9

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

PRESCRIPTION FREE

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

Down Down with high prices, Genuine Singer or St. John, two drawer, drop leaf sewing machines for $35 at Frost Bros'. Silver Lake.

Markets.

Markets by Telegraph, March 9.

New York Money Market.

GOVERNMENTS—Moderately active and strong.
BAR SILVER—$1 14¼.
RAILROAD BONDS—Firm, and generally higher, with the Chesapeake & Ohio, Kansas & Texas, Denver & Rio Grande, Ohio Central, Iron Mountain and Erie issues, as the favorites.
STATE SECURITIES—Quiet.
MONEY—5 to 6 per cent, closing at 5 per cent.
PRIME MERCANTILE PAPAR—5 to 6 per cent.
STERLING EXCHANGE—B. B., firm; 60 days, $4 84¼; sight, $4 87¼.

GOVERNMENT BONDS.

Coupons of 1881	105¾
New 5's	103⅝
New 4½'s (registered)	108 to 108¼
Coupons	108 to 108¼
New 4's (registered)	105¾ to 105⅞
Coupons	106¾ to 106⅞

PACIFIC SIXES—95; new 1 25.
MISSOURI SIXES—$1 09.
ST. JOE—$1 07.

London Silver Market.

SILVER—52¼ pence per ounce.

Chicago Produce Market.

FLOUR—Nominally unchanged.
WHEAT—Unsettled, but generally higher; No 2 red winter, 1 22; No. 2 spring, 1 22½ May; No. 3 do, 1 08.
CORN—Stady and fair demand; 36½c cash; 36¾c April; 40⅜c May.
OATS—Steady and fair demand; 31⅜c cash; 31⅜ bid April; 35½c May.
RYE—Steady and uchanged.
BARLEY—Steady and unchanged.
PORK—Active but lower; 11 50 to 11 55 cash; 11 55 to 11 57½ April; 11 70 to 11 72½ May.
LARD—Demand good at lower rates; 7 07½ to 7 10 cash; 7 12½ to 7 15 April; 7 22½ to 7 25 May.
BULK MEATS—Fair demand and lower; shoulders, 4 10; short ribs, 6 60; short clear, 6 70.
WHISKY—Steady and unchanged; 1 07.
SEEDS—Timothy, good demand at full prices; 2 65 to 2 80; clover, 1 65.

Kansas City Live Stock Market.

CATTLE—Receipts, 363; shipments, 293; market quiet but steady and active shipping steers, averaging 1,345 to 1,434 pounds, sold at $4 20; stockers and feeders, 3 25 to 3 80; cows, at $2 60 to 3 25.
HOGS—Receipts 673; no shipments; market steady; sales ranged, 3 70 to 4 15; bulk at 3 80 to 3 95.
SHEEP—Receipts, none; shipments, none; market firmer.

Liverpool Market.

BREADSTUFFS—Market firm.
FLOURS—10s to 13s.
WHEAT—Winter, 11s to 11s 8d; spring, 10s 9d to 11s.
CORN—New, 5s, 9d.
CHEESE—72s.
OATS—6s, 6d.
PORK—57s 6d.
BEEF—77s 6d.
BACON—Long clear, 36s 6d; short clear, 38s.
LARD—39s 9d

Kansas City Produce Market.

WHEAT—Receipts, 9,524 bushels; shipments, 37,093 bushels; in store, 536,904 bushels; market weak and lower; No. 2, 1 10½ bid; No. 3, 1 06½; No. 4, 1 04½.
CORN—Receipts, 14,275 bushels; shipments, 11,416 bushels; in store, 246,004 bushels; market quiet but firmer and higher; No. 2 mixed, 29½c; No. 2 white mixed 30 bid; 30½c asked.
OATS—Nominal.
RYE—Nominal.
BARLEY—Nominal.
BUTTER—Market firm for choice at 27 to 28c; other grades quiet.
EGGS—Market unsettled at 8 to 8½c per dozen.

Chicago Live Stock Market.

HOGS—Receipts, 18,000; shipments, 6,000; more active, shade firmer, quality poor; pens cleared; mixed packing, $4 15 to 4 40; light $4 20 to 4 35; choice heavy $4 40 to 4 70; dressed hogs, 4 85 to 4 90.
CATTLE—Receipts, 3,400; shipments, 1,600; choice, in good demand; others fairly active; shipping, 4 00 to 5 40; butchers' firm, 2 00 to 4 00; corn fed Oregon steers, sold at 4 55; stockers and feeders quiet and steady, 2 90 to 3 90.
SHEEP—Receipts, 700; fairly active, 4 80 to 5 50, good local demand. All sold early.

St. Louis Live Stock Market.

CATTLE—Active for all grades, prices strong and mixed butchers stuff better; pens cleared before noon choice to extra steers, 5 00 to 5 50; good to prime, 4 60 to 4 90; stockers, 2 75 to 3 50; feeders, 3 75 to 4 25; cows and heifers, corn fed Texans, 2 50 to 4 00; receipts, 1,200; shipments, 500.
HOGS—Fairly active; Yorkers and Baltimore, 4 00 to 4 30; packing, 4 10 to 4 25; butchers to select, 4 30 to 4 50; receipts 3,800; shipments, 1,100.
SHEEP—Firm; fair 3 75 to 4 50; good; 4 65 to 5 00; prime to choice, 5 25 to 5 75; receipts, 900; shipments, 1,200.

St. Louis Produce Market.

FLOUR—Easier and slow.
WHEAT—Opened lower and advanced; No. 2 red, 1 20½ to 1 21; No. 3 do, 1 19½ to 1 20; No. 4 do, 1 12 asked.
CORN—Better; 35⅝ to 35¾c.
OATS—Dull.
BARLEY—Dull and unchanged.
RYE—Quiet and steady.

St. Louis Wool Market.

We quote: Tub-washed—choice 59 to 60c, medium 55 to 57c, low and dingy 50 to 53c: Unwashed—medium 35 to 37c, coarse 28 to 30c, fine 25 to 28c. Burry, black and cotted, 3 to 10c per lb less.

Atchison Market.

HOGS—Receipts light; market steady at 3 70 to 3 60 for light; 3 75 to 3 95 for mixed packers, and 3 95 to 4 10 for choice.

Denver Market.

FLOUR, GRAIN AND HAY.

HAY—Upland, 21 to 24; second bottom, 18 to 20; bottom hay, 16 to 18.
FLOUR—Colorado, 3 25 to 3 50; Graham, 3 00 to 3 25.
MEAL—Bolted corn meal, 1 60.
WHEAT—2 00 ℔ cwt.
CORN—1 20 to 1 25 ℔ cwt.
OATS—Colorado, 2 00 to 2 15; state, 1 80 to 1 85 ℔ cwt
BARLEY—1 75 to 1 85 ℔ cwt

PRODUCE, POULTRY VEGETABLES:

EGGS—Per dozen, ranch, 10 to 20c; state, 13 to 15c
BUTTER—Ranch, ℔ lb, 20 to 40c; creamery, 35 to 40; poor, 10 to 15c
ONIONS—4½ to 5c ℔ lb
POTATOES—Divide, 2 20 to 2 40 ℔ cwt; Greeley Mortons 2 30; Greeley Early Rose, 2 50 to 2 65
TURKEYS—Dressed, 13 to 15c ℔ lb
CHICKENS—Dressed, 12 to 13c ℔ lb

Topeka Hide and Tallow Market.

HIDES—Green	.06
Green, damaged	.5½
Green, calf	.09
Bull and stag	.05
Dry flint prime	.16
Dry Salted, prime	.08
Dry damaged	5@7
TALLOW	.05
SHEEP SKINS	.75@1 25

Topeka Produce Market.

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

APPLES—Per bushel	1.50@2.00
BEANS—Per bu—White Navy	1.90
" Medium	1.75
" Common	1.50
BUTTER—Per lb—Choice	.25
" Medium	.15
CHEESE—Per lb	12@15
EGGS—Per doz—Fresh	.10
E. R. POTATOES—Per bu	.50@60
P. B. POTATOES—Per bu	.75@80
SWEET POTATOES	1.25
ONIONS—Per bu	2.00
CABBAGE—Per dozen	1.00@1.50

Topeka Retail Grain Market.

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

WHEAT—Per bu. No. 2	1.60
" Fall No 3	.95
" Fall No 4	.90
CORN—White	.25
" Yellow	.23
OATS—Per bu	.28
RYE—Per bu	.55
BARLEY—Per bu	.50
FLOUR—Per 100 lbs	3.35
" No 2	3.00
" No 3	2.75
" Rye	3.00
CORN MEAL	.90
CORN CHOP	.70
RYE CHOP	1.00
CORN & OATS	1.00
BRAN	.70
SHORT	.70

New Advertisements.

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

New Strawberries.

LONGFELLOW (for late), **WARREN** (for early); Largest and best; Hardy and prolific. Good shippers. Try them. Plants $1 00 per dozen, $5 00 per 100. Circulars free. J. DECKER, Fern Creek Ky.

BERKSHIRES

—AT THE—

COLLEGE FARM.

We offer for sale a few litters of very choice pigs the get of such noted sires as imported Mahomet 1079, Gil Blas 2627,—a son of Lord Liverpool—and othes, "Sallies", "St Bridges" and "Miss Smiths" in the herd. Pigs ready to ship now. Also

SHORT-HORNS,

(Young Marys, of both sexes. Address

E. M. SHELTON,
Supt. Farm, Manhattan, Kansas.

IF YOU WANT TO MAKE MONEY

in a legitimate business within 60 days, where small capital is required. And investment can be redeemed at any time. Send for information to
H. M. LEE & CO., 35 Broadway, New York.

AGENTS WANTED Everywhere, to sell the best **Family Knitting Machine** ever invented. Will knit a pair of stockings, with **HEEL** and **TOE** complete, in 20 minutes. It will also knit a great variety of fancy work for which there is always a ready market. Send for circular and terms to The Twombly Knitting Machine Co., 469 Washington St. Boston, Mass.

Mound City Poultry Yards,

Mound City, Kas.

Breeder and shipper of pure bred Light Brahmas, Plymouth Rocks and Brown Leghorns. Am now booking orders for eggs as follows: Light Brahmas, $3 00, Plymouth Rocks, $2 00 and Brown Leghorns, $1 50 for 13 eggs. Chicks for sale after July 4th.
Address,

S. L. IVES.

Pure White Doura

—OR—

Egyptian Rice Corn.

I will supply parties at $2 00 per bushel and 20 cts for sack, marked and delivered on board of cars, or 25 cents per pound by mail, postage paid.

S. S. DICKINSON,
Larned, Kansas.

Little's Chemical Sheep Dip.

We have just tested this DIP on a flock of 400 sheep in **COLD WATER**, (one to one hundred.)

36 Hours after Dipping

all scab and evidence of inflammation disappeared and left the skin **SMOOTH AND CLEAN**, and the sheep in fine condition. Sold by

ROOT & HOLLINGSWORTH,
Kinsley, Edwards Co., Kansas.

STRAWBERRY,

300,000 Plants, best leading varieties, including new and rare kinds: Also Snyder

Blackberry and Raspberry Plants.

Grape vines, Cherry trees, etc: Send for Price List. Address

S. RYDER, Clinton, Iowa.

THOROUGH-BRED DURHAMS FOR SALE CHEAP.

One bull 5 years old, kind and gentle to handle. No better in the state. Has been shown twice a year and never failed of winning a prize 1 yearling, 2 bull calves, cows, heifers, and cow calves. Address
VINTON ALLEN
Brown's Grove, Pawnee Co., Kas.

VICTOR STANDARD SCALES,

ALSO
VICTOR
SELF-GOVERNING
WIND MILLS.

Every SCALE and every MILL warranted equal to any in the market. Buy the best. It is always the cheapest: For prices, address
MOLINE SCALE CO.,
MOLINE, ILLINOIS.

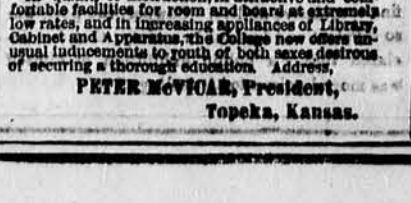
NURSERYMEN and FARMERS!

We offer at Low Prices 500,000 RED CEDARS and Forest tree Seedlings. Including Maple, Box Elder, Ash Elm, Red Bud, Dogwood, Sycamore and the famous

TULIP PUPLAR.

Also large and fine stock Apple, Peach and Pear trees Raspberry, Blackberry and Strawberry plants, and general Nursery Stock. Order early. Adress BAILEY & HANFORD, Nurserymen and Fruit Growers, Makanda, Jackson Co., Ill.

IF YOU HAVE A GARDEN, YOU NEED



ESTABLISHED 1845.

150 pages. Over 800 Illustrations, and a Beautifully Colored Plate of Pansies. Mailed for 10 Cents.

BLISS' ILLUSTRATED AMATEUR'S GUIDE TO THE FLOWER AND KITCHEN GARDEN contain more practical information on gardening than many high-priced books. Our list comprises 2,000 varieties Flower Seeds, 1,000 varieties Bulbs and Plants, 500 varieties Vegetable Seeds, 500 varieties Potatoes, etc. 220 pages, over 600 illustrations, 2 double-page colored plates of flowers. Price: paper covers, 35 cents; bound in muslin, $1.00.

BLISS' ILLUSTRATED POTATO CATALOGUE. 50 pages. A valuable treatise on the Potato and descriptive list of all the principal varieties grown. Profusely illustrated. Price 10 cents. B. K. BLISS & SONS, 34 Barclay St., New York, N. Y.

Washburn College.

The Winter Term opens on

Wednesday, January 7th.

Four courses of study optional—Business, Scientific, Classical Preparatory and Collegiate.

Excellent rooms for young men in the College Hall at from 25 to 50 cents per week. Good table board at $2.00 per week.

The Hartford Cottage for young ladies is now completed. Rooms furnished for the most part at from 20 to 50 cents per week. The domestic arrangement is on the Mount Holyoke plan. Each young lady aids in household work to the extent of about an hour a day, under the personal supervision of the matron.

In quality of instruction, in attractive and comfortable facilities for room and board at extremely low rates, and in increasing appliances of Library, Cabinet and Apparatus, the College now offers unusual inducements to youth of both sexes desirous of securing a thorough education. Address,

PETER McVICAR, President,
Topeka, Kansas.

Literary and Domestic.

"He Careth For You."

"Aunt Joe" sends us the following selected poem with a request to re-publish.

I was weary of planning and working,
And my frame seemed strangely weak;
And I took up the old black volume,
As I settled into my seat.

Seeking no special chapter,
Drifting just here and there:
Listlessly turning the pages,
To read what the tide should bear.

Feeling that not a creature,
Knew of the heavy load,
Which I was striving to carry
Over the rugged road.

And this was the loving sentence,--
Opening the book I read:
"He careth for you." How blessed!
How beautiful! how complete!

Travel we sad and lonely
Over life's rough highway.
Veiling our deepest sorrows,
Carefully day by day.

What if our griefs are hidden,
E'en from our dearest friends;
When the compassionate Saviour
Over the soul will bend.

Caring as no one earthly
Ever had love to care;
Bearing as no one earthly
Ever had strength to bear.

Beautiful words of blessing,
Making the darkness light;
He who beholds the sparrow,
Keepeth us ever in sight.

Literary Items.—No. 37.

Frequently, in our journey through life, we find men of great speculative ability, but they are wonderfully deficient in practical ability. A man may be a poet, a good orator, a learned linguist, a strong, sensitive writer, like Dr. Samuel Johnson, or one who measures every word and clothes his thoughts with flowers of speech, like Addison; he may be a deep system thinker, like Adam Smith—the author of the "Wealth of Nations." Such men may possess a large amount of speculative ability, as their writings evidently prove, but nothing is more common than that the greatest writers and thinkers are altogether inefficient in almost everything appertaining to success in life. To write a romance, a history, or a poem, requires nothing but the mental powers. This we term speculative ability. Practical ability consists in the steady determination to apply means for the attainment of specific ends. A merchant may become wealthy in business, whose education is very limited; he may not be capable of writing an ordinary sentence, but if he applies his ability to those means by which wealth is accumulated, the end which he has in view will be attained by skill and perseverance. I have known several of this class in Kansas.

It has been well said that some men are "giants in the closet, that have proven but children in the world." It is this inequality of talent, this deficiency of practical ability, which excites the astonishment of the multitude.

We cannot go over the vast catalogue of eminent names which might be introduced in support of this remark. Those who have read Adam Smith's "Wealth of Nations," would reasonably suppose that the author of a work which is so profound and systematic in its views and reasonings, would be well qualified not only for the bustle and business of actual life, but of all men would possess the ability to accumulate the wealth of nations. The very reverse of this we find recorded of him, by one who was intimately acquainted with him during life. "He was certainly," says Dugald Stewart, "not fitted for the general commerce of the world, or for the business of actual life. The comprehensive speculations with which he had been occupied from his youth, and the variety of materials which his own invention continually supplied to his thoughts, rendered him habitually inattentive to familiar objects, and to common occurrences; and he frequently exhibited instances of absence, which have scarcely been surpassed by the fancy of La Bruyere. Even in company he was apt to be engrossed with his studies, and appeared, at times, by the motion of his lips, as well as by looks and gesture, to be in the fervor of composition."

The character of Addison is still a more striking illustration of this remark. "In the year 1817," says Dr. Samuel Johnson, "he rose to the highest elevation, being made secretary of state. For this employment he might justly be supposed qualified, by long practice in business, and by his regular ascent through other offices; but expectation is often disappointed. It is universally confessed that he was equal to the duties of his office. In the house of commons he *could not speak*, therefore was useless to the defense of the government." "In the office," says Alex. Pope, "he could not issue an order without losing his time in quest of fine expressions. What he gained in rank, he lost in credit; and finding, by experience, his own inability, was forced to solicit his dismission with a pension of fifteen hundred pounds a year."

Lamartine was a fine writer and a good scholar, but when the French people called upon him to take the reins of government during the revolutionary period of 1832, it was soon found that he was unequal to the busy turmoil of political life.

Benjamin Franklin, it is said, never spoke in public longer than five minutes. Thomas Jefferson, certainly, was by no means an orator, although his writings show him to be a man of fine speculative ability. Cowper, the poet, was so diffident and bashful in society, that he declared that "a public exhibition of himself was mortal poison to his feelings."

"Gray's Elegy" is conceded to be one of the most finished poems in the English language; but Wallace says of him: "I agree with you about Gray; he is the worst company in the world. All his words are measured and chosen. His writings are admirable. He, himself, is not agreeable."

Daniel Webster and Hon. Thomas Ewing were traveling in northern Ohio. The roads were muddy, and the carriage broke down in a mud-hole. A farmer from an an adjoining field came to their assistance. He handed an ax to Daniel Webster, who soon convinced the farmer that he was a poor chopper. The farmer inquired who that man was that could not chop off a small pole. When he found out who he was, he said: "What! and is that the great Daniel Webster, of Mass., the expounder of the conitituion? Why, he aint much after all, for he don't know how to chop off a pole."

This farmer expressed his conviction—he drew a hasty conclusion from a superficial view of things. His estimate of greatness consisted in the dexterity with which one could use an ax, as well as the expounding of the constitution and laws. He had never thought that greatness or excellence in *one thing did not confer excellence in all*.

JAS. HANWAY.

Lane, Kansas.

Ornamental Work.

Arthur's Magazine contains some verv sensible hints about fancy work. The following is one of them.

"The place of fancy work is always subordinate, therefore never execute a piece which oppresses one by its elaboration; but study by a light effective effort, to make it come in happily, but secondarily, as a mere bright touch in the furnishing of a room."

I think that is something one should always remember. A great amount of the fancy work done is absolutely useless. What comfort is it to a person to go into a room that is so completely filled with such work that they look around in despair at not being able to find a vacant place upon the wall. Then the remark of your host, "Oh! I nearly forgot to show you the pig I made the other day. It is such a little beauty. I am going to fix it on to a stool. Will it not look amusing?" "But," you reply, "how can you put your feet on the stool, with a stuffed pig in the way." "O, that is very easily answered, I am only making it for looks." You go home, think of all the wondering things you had seen, and in your dreams that night you imagine you are at a circus, only instead of the animals being alive they are made of cloth, stuffed, and have big black and white beads for eyes, and the clown is made of Bristol board, and everything and everybo'y generally seem to be in a jumble.

As the story in Mother Goose says, consider; consider before you make stuffed dogs and pigs, and now, as the magazine I have mentioned tells how to make a few simple things, I will write the descriptions. The most artistic floor-mats to lay before sofas or bureaus are made from coffee bags, the border being merely half a dozen rows of alternate cross-stitches, each one being so large as to take up four weavings of the foundation, in solid or shaded zephyr. No pattern whatever is required and the article may be lined and hemmed by way of finish.

For an elegant table cover take a sheet of the coffee bag, fringe it out the depth required and border it with one row of spreading-coral in scarlet or cardinal double zephyr.

For a daisy mat, cut a round pasteboard foundation, and cover it with silk, merino, or any other fabric. Thread your needle with zephyr, pass it through the edge of the board, pull the wool through until within two inches of its end, then turn the needle backward and pass it thro' the zephyr close to the edge of the board. Then cut the thread off the same length as the end previously left hanging. Now, you see you have fringe consisting of two equal ends. Continue in the same manner until you have fringe all around. Now take zephyr the color of the fringe, roll it over three fingers until you have quite a solid ball, pull it off and tie it tightly around the middle, then cut the ends and pull them out in all directions, so that you have a flat, round rosette, make enough to go around the mat directly upon the fringe, and leave between each a space equal to itself—this is the place for the daisy. To make the daisy prepare a rosette of white in the same manner as the colored, then make a small one of yellow and sew it in the centre of the white. Now you may have perfect daisies which insert in the places left for them, alternating with the colored ones.

"BRAMBLEBUSH."

Subterranean Waters.

It has been asserted that at Champaign, Ill., an inexhaustible supply of water has been discovered twenty-seven feet below the surface, and that on being probed it overflows at the surface of the earth. Quite similar instances in various parts of the country have been numerous. The phenomenon proceeds from the same general cause that sends the millions of springs of water bubbling forth through superficial crevices, and makes some wells constantly overflow. The influence which produces such action as this is the resultant of the earth's centripetal and centrifugal forces operating impulsively upon the subterranean water deposits and forcing them into and through the natural channels of the earth's crust. The theory that the water flows to these springs and wells from a higher point by hydrostatic pressure, is ably contested by a writer in the *Popular Science Monthly*. If the immense floods which break forth in different places, were the result of a flow from some other higher bodies of water, the drains must have of necessity sooner or later exhausted the supply sources, unless equivalent streams were flowing into the latter also. Next, whence could come the higher heads to flow into and supply them in turn? Extend the process until a flow is secured from the highest land on the earth, and then whence comes the flow to supply that?

At Grenelle, Germany, a majestic column of warm water rises thirty feet above the surface from a well one thousand feet deep, for which there is no apparent head. The artesian well at Tours rises with a jet that can sustain a cannon. Chatauqua lake rises like a jewel in the crown of a high mountain ridge. It is twenty miles long and two miles wide, and is fed by innumerable springs, which can be seen bubbling up through the bottom. It is on the highest land in the state west of the Catskill mountains. From it issues a large millstream. To account for this great flow in this region by supposing it to fall from some other higher elevation, is absurd, for there is no such source from which it could flow without being exhausted. In the mountain region of Pennsylvania, at every step, the traveler notices abundant streams of the purest water, sometimes gushing from the very tops of the mountains. There is no land above them from which such torrents could flow in such constant abundance. Lakes Superior, Huron, and possibly Michigan, are overflowing water, but they can not be accounted for upon the hypothesis of hydraulic pressure, since there are no higher lands that could furnish an adequate supply. If all the lands on the continent which are higher than Lake Superior are supposed to be but shells filled with water, the difference between the outflow and inflow of Ontario would quickly exhaust the supply. The vast surface of Ontario can not come through an underground channel connecting it with Superior, for the difference in level between the two is 365 feet, and were they connected their surfaces would find a common level. Lastly, from the highest point of the highest mountains in the world—the Himalayas—great cataracts and streams have poured, and still do pour, with an abundance that not only is astonishing, but would exhaust any possible reservoirs at their extreme tops. The conclusion is inevitable that some other force than hydrostatic or ffydraulic pressure exists, to which these great overflows are due. Gases are out of the question, for they force water down instead of up, when both are enclosed in a common reservoir.

In the case of water imprisoned within the earth's rocky chambers, the resultant of the two natural forces, centripetal and centrifugal, will be duplicated upon every point of the inside of the rock prison. The intensity of the resultant will be represented by the aggregation of the resultants of all the particles of water. Suppose a small opening to be made in the rock prison. Immediately the water will be forced out with a velocity equal to the influence of these aggregated resultants, modified by the laws of friction, and this velocity will not be influenced by the direction of the original impulses given to the water particles. Hence, if fissures exist in rocks that lead to imprisoned waters, it would happen that through these outlets the waters must certainly flow. If by any artificial means, as by boring, an opening should be made between a body of confined water, and the surface of the earth, a flowing well would result. The intensity of the centrifugal force will increase with the distance from the earth's center, while gravity decreases. Thus we find the strongest and most abundant flows at the top of mountains or on high plateaus. But suppose that it had been fully proved that a particular overflowing well or spring was caused by hydrostatic pressure, it would still remain to be accounted for how the water got to that higher point. This can best be done by the force designated, which is always acting on the partially confined water-beds and water-channels forming the internal water-structure of the earth's crust.

Women as Poultry Raisers.

The custom practiced in France, of allowing the wife so many francs a month or year as "pin-money," to use as she pleases, is one that should be generally adopted, especially in the United States. On the farm the care of some, if not all, the poultry could be very properly transferred to the women of the household. The care of poultry is a business naturally adapted to women, as it requires patience and attention, and at the same time kindness and gentleness, traits too often lacking in the sterner sex. There is no event in connection with poultry raising, during the whole year, which has not its interest for those who care for the innocent creatures of the farm-yard, whether it be feeding grateful bipeds, gathering eggs, hatching the chickens, or reducing the flocks in the fall to suit winter quarters, all have their charm, and excite the interest and sympathy of their faithful attendants.

There is much complaint among physicians that American ladies lose health and beauty earlier than they ought for want of sufficient out-of-door air and exercise; and this occupation of poultry raising has, among its other benefits, that of sending them daily abroad into the pure, outer air, and inciting a love for rural, natural beauty not found among those whom no such duty tempts from the fireside.

How Much Is My Boy Worth?

Some years ago Horace Mann delivered an address at the opening of some reformatory institution for boys, during which he remarked if only one boy was saved from ruin, it would pay for all the cost, and care, and labor of establishing such an institution as that. After the exercises had closed, in private conversation, a gentleman rallied Mr. Mann upon his statement, and said to him:

"Did you not color that a little, when you said that all the expense and labor would be repaid if it only saved one boy?"

"Not if it was my boy," was the convincing reply.

There is a wonderful value about "my boy." Other boys may be rude and rough, other boys may be reckless and wild; other boys may seem to require more pains and labor than they ever will repay; other boys may be left to drift uncared for, to the ruin which is so near at hand; but "my boy,"—it were worth the toil of a lifetime and the lavish wealth of a world to save him from temporal and eternal ruin. We would go the world around to save him from peril, and would bless every hand that was stretched out to give him help or welcome. Every poor, wandering, outcast, homeless man, is one whom some fond mother called "my boy." And yet how many parents are there who give their time to the consideration of what things "my boy" should learn?

Hints to Lady Travelers.

When I was a school-girl, about to take my first trip alone from home, an older brother gave me some practical advice, so good that I have always heeded it since:

Always have enough change on hand to pay a porter or 'bus driver, without giving him a bill or a large coin to change; for if he has any undesirable pieces of money he will certainly put it on you. Besides, it saves time and trouble to have the right amount all ready.

Do not carry all your surplus funds in your pocket-book, so that every one can see it every time you show your railroad ticket. You may lose it.

Look after your own baggage when it needs to be re-checked, then you will know it is all right.

If you wish to know anything about your route, ask the conductor or some other official. The chances are that your fellow travelers do not know anything more about the matter than you do yourself.

Carry no jewelry in sight. It is unsafe, as well as in bad taste.

Make no acquaintances. A model traveler is civil to all, but beyond that keeps his or her own counsel.

The English Sparrow.

Our exchanges for a long time have been teeming with articles and communications in relation to the merits and demerits of the English sparrow, which was introduced here a number of years ago.

This bird has now become very abundant with us, and is, as we foretold it would be, one of the greatest of nuisances. Not only is it rapidly spreading, to the detriment of our native birds, but it is playing havoc in gardens and among the small fruits of the village farmers.

When the bird was first brought here, it had the reputation of being a good destroyer of insects, but so far as our observation goes, it will not trouble itself with insect-catching so long as it can get any seeds, grain, or small fruits to eat. In fact, as an insect destroyer the English sparrow is a total failure, and we cannot but look with alarm on the very rapid increase that is apparent of this bird.—*Mass. Ploughman.*

Beautiful Women.

The perceptive faculty of woman is usually keener than the same phrenological organ in man. Woman knows, or strongly believes, that beauty rather than genius is worshipped by the sterner sex. A man may talk of the latter to his lady love; but the keenness of the woman knows he is thinking of the former in his heart. Women have an innate desire to please their beaux. They are fond of admiration, hence one of their longings is to be beautitul, to be called pretty, handsome. The grand secret of female beauty is health; the secret of health is power, the appetite to eat, digest, assimilating a proper quantity of wholesome food; yet, in connection with this, there is something more important—active exercise, which will cleanse and tone the vital organs, gain a perfect digestion, and produce a state of mental and physical electricity which gives symmetry of form, bright eyes, white skin and glossy hair, in fact a genuine type of female beauty and loveliness which no cosmetic can ever produce.

Mothers, Think of This.

The following suggestion is worthy the consideration of parents: "Nervousness with a child is almost always a matter of the stomach. A crust of bread will usually put an end to the most obstinate perversness. Children, for this reason, should never be allowed to go to bed, after a fit of crying, with an empty stomach. A bit of bread and jelly, or a cup of custard, will bring back smiles and happiness when all the moral law fails, and for the soundest of reasons."

Sir William Gull, the eminent physician of Guy's hospital, agrees with Dr. Richardson and Sir Henry Thompson, in denouncing the too frequent use of alcoholic medicines. He testifies that he treats fever patients without alcoholic stimulants; that the use of wines, ales and brandy by overworked people is useless and dangerous; and that in regard to intellectual labor all such drinks are positively hurtful. Even the moderate use of alcoholic drinks he pronounces to be injurious to the nerve-tissues and deleterious to the health.

Advertisements.

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

$66 a week in your own town. Terms and $5 outfit free. Address H. HALLETT & Co., Portland, M

$77 a Month and expenses guaranteed to Agt Outfit free. Shaw & Co., Augusta, Maine

50 Pin-a-4, *Chromo, Lily, Lace, Marble*, etc., Cards, in case, 10c. GLOBE CARD CO., Northford, Ct.

$777 a Year and expenses to agents. Outfit free. Address P. O. VICKERY, Augusta, Maine.

50 *Perfumed* cards, *best assortment ever offered*, 10c. Agts Outfit, 10c. CONN CARD CO., Northford, Ct

62 Gold, crystal, lace, perfumed & chrome cards, name in gold&jet 10c Clinton Bros, Clintonville Ct

50 *Chromo, Glass, Scroll, Wreath* and *Lace* cards 10c Try us. CHROMO CARD CO. Northford Ct,

12 Elite, Gold Bow, Bevel Edge cards 25c., or 20 Chinese Chromos, 10c. J B HUSTED, Nassau, N Y

50 *Motto, Gold, Floral, Scroll, Snowflake* cards, 10cts. Agts Samples, 10c. Stevens Bros, Northford, Ct;

$5 to $20 per day at home. Samples worth $5 free. Stinson & Co., Portland, Me

ELEGANT AUTOGRAPH ALBUM, gilt covers, 48 pages, illustrated with birds, scrolls, etc, in *colors*, and 47 Select Quotations, 15c: Agent's outfit for cards, (over 60 samples), 10c. Davids & Co, Northford Ct.

50 *Chromo, Tortoise Shell, Cupid, Motto, Floral* cards, 10c; outfit 10c. Hall Bros, Northford Ct:

PHOTOGRAPH VISITING CARDS: Circular and 60 samples for 10c: Seavy Bros, Northford Ct.

$72 A WEEK. $12 a day at home easily made Costly outfit free. TRUE & Co., Augusta, Me.

50 assorted CARDS, Scroll, Chromos, Transparent, etc., with name 10c. J. F. Barnes, Northford Ct

$55.66 Agents Profit per Week. Will prove it or forfeit $500. $4 Outfit free. E. G. RIDEOUT & CO., 218 FultonSt.N.Y

5000 Bushels seed potatoes. Orders booked now Leading varieties and valuable new kinds, both sweet and Irish. Directions for making FIRE HOT BEDS in free catalogue. E. TAYLOR, Armstrong, Kas.

SALESMEN WANTED $125 A Month and Expenses selling to DEALERS SAMPLES FREE. Send 3c. STAMP to [illegible] S. FOSTER & CO., Cincinnati, O. CIGARS

AGENTS WANTED For the handsomest and CHEAPEST BIBLES Ever furnished Agents. Extra Terms and Large CASH PREMIUMS Forshee & McMakin, Cincinnati, O.

Beatty's Tour in Europe.

Only 10 cents. being a condensed history and travels in Europe, over 30 engravings, nearly 100 pages, nicely bound book, sent for only 10 cents. Address the Author and Publisher, DANIEL F. BEATTY, Washington, New Jersey

Washburn College

Funds to loan on *Long* time, at REASONABLE rates, on *IMPROVED* Farms in Shawnee county. *No Commission.* Address
C. W. JEWELL, Treasurer, Topeka, Kas.

AGENTS! READ THIS!!

We will pay agents a salary of $100 a month and expenses, or allow a large commission, to sell our new and wonderful inventions. *We mean what we say.* Sample Free. Address Sherman & Co., Marshall, Mich.

Pianos--Organs.

CHEAPEST HOUSE IN AMERICA. 1st-class instruments, all new, for cash or installments; warranted 6 years. Illustrated catalogues free. Agents wanted. T. LEEDS WATERS, Agt., 28 West 14th st., New York

GUNS Lowest prices ever known on Breech-Loaders, Rifles, & Revolvers. OUR $15 SHOT-GUN at greatly reduced price. Send stamp for our New Illustrated Catalogue.
P. POWELL & SON, 238 Main Street, CINCINNATI, O.

YOUNG MEN And Older People—We send on 30 DAYS' TRIAL our ELECTRO-VOLTAIC BELTS, BANDS, Suspensories, Trusses, and other appliances, to those suffering from *Nervousness, Nervous Debility, Weaknesses*, or Lost Vitality *from any cause*; or to those afflicted with *Rheumatism, Paralysis, Dyspepsia, Liver or Kidney Troubles, &c.*, or Ruptures. *Speedy Cures Guaranteed.* Send at once for our Illustrated Pamphlet. Address VOLTAIC BELT CO., Marshall, Mich.

Fire-Proof Safe For Sale,

We have a large new fire-proof safe for sale, of Mosler, Bahman & Co's Manufacture. Outside measurement 5 feet high, and 2 ft 8 in by 2 ft 10 in wide. Inside dimensions, 3 ft 4 in by 21 inches. This safe is new, never having been in use, and cost at factory $336 00; it is first class in every respect. Having no use for it, we will sell at a bargain. Address
KANSAS FARMER, Topeka, Kas.

IF YOU Want a FARM or HOME, with independence and plenty in your old age.

"The best Thing in the West,"

—IS THE—

ATCHISON, TOPEKA & SANTA FE R. R.

LANDS IN KANSAS.

11 years' credit with 7 per cent interest. 33⅓ PER CENT, DISCOUNT FOR CASH. Fare over A., T. & S. F. R. R. refunded to purchasers of Land. Circulars giving full information sent FREE. Address,

A. S. JOHNSON,
Act'g Land Com., Topeka, Kansa

Land! Land! Land!

HOMES FOR THE PEOPLE

350,000 ACRES

—IN—

Bourbon, Crawford & Cherokee CO'S, KANSAS,

Still owned 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.

20 PER CENT DISCOUNT FOR CASH IN FULL AT DATE OF PURCHASE.

For Further Information Address

JOHN A. CLARK,
Fort Scott, Kansas LAND COMMISSIONER

THE STRAY LIST.

HOW TO POST A STRAY

BY AN ACT of the Legislature, approved Feb 27, 1855, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisement, to erward by mail, notice containing a complete description f said strays, the day on which they were taken up, their praised value, and the name and residence of the taker up, the KANSAS FARMER, together with the sum of fifty cents each animal contained in said notice."

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

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

Unbroken animals can only be taken up between the 1st day of November and the 1st day of April, except when found in the lawful enclosure of the taker-up.

No persons, except citizens and householders, can take up a stray.

If an animal liable to be taken, shall come upon the premises of any person, and he fails for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

Any person taking up an estray, must immediately advertise the same by posting three written notices in as many places in the township, giving a correct description of such stray..

If such stray is not proven up at the expiration of ten days, the taker-up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered, also he shall give a full description of the same and its cash value. He shall also give a bond to the state of double the value of such stray.

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

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

The owner of any stray, may within twelve months from the time of taking up, prove the same by evidence before any Justice of the Peace of the county, having first notified the taker up of the time when, and the Justice before whom proof will be offered. The stray shall be delivered to the owner, on the order of the Justice, and upon the payment of charges and costs.

If the owner of a stray fails to prove ownership within twelve months after the time of taking, a complete title shall vest in the taker-up.

At the end of a year after a stray is taken up, the Justice of the Peace shall issue a summons to the householder to appear and appraise such stray, summons to be served by the taker up; said appraiser, or two of them shall in all respects describe and truly value said stray, and make a sworn return of the same to the Justice.

They shall also determine the cost of keeping, and the benefits the takerup may have had, and report the same on their appraisement.

In all cases where the title vests in the taker-up, he shall pay into the County Treasury, deducting all costs of taking up, posting and taking care of, one-half of the remainder of the value of such stray.

Any person who shall sell or dispose of a stray, or take the same out of the state before the title shall have vested in him shall be guilty of a misdemeanor and shall forfeit double the value of such stray and be subject to a fine of twenty dollars.

Strays for the week ending March 10.

Linn county—J. H. Martin, clerk.

MARE—Taken up by L C Price, Paris tp, Feb 5, 1880, one bay mare 4 years old, 14½ hands high, left hind foot white and shod all around, valued at $35.

Russell County—C. M. Harshbarger, Clerk.

MARE—Taken up by Kentor Crummell, Big Creek tp, (Russell P O,) Feb 9, 1880, one brown mare about twelve years old, white hind feet, large white spot in forehead, valued at $10.

Strays for the week ending March 3.

Chautauqua County—C. M. Knapp, Clerk.

PONY—Taken up by C M Ward, Harrison tp, Feb 5, 1880, one horse pony, white, 7 years old, right eye white, plates on hind feet, valued at $20.

Lyon County—Wm. F. Ewing, Clerk.

MARE—Taken up by Jos R Davis, Fremont tp, one bay mare, 5 years old, branded U on left hip, valued at $40.

HEIFER—Taken up by M S Piper, Americus tp, one white yearling heifer, red ears, no other marks or brands, valued at $15.

HEIFER—Taken up by W P Sexton, Emporia City, one 2 year old black heifer, no marks or brands, valued at $12.

McPherson County—J. A. Flesher, Clerk.

MULE—Taken up by James Welch, Gypsum Creek tp, one bay mare mule, about 14 hands high, blind in right eye, crooked fore legs, branded on the left thigh with 8 or 8, harness marks and had on a halter and piece of horse blanket fastened with a red circingle, said mule supposed to be eleven years old, valued at $30.

Miami County—B. J. Sheridan Clerk.

COW—Taken up by James McDowell, Osage tp, Dec 29, 1879, one roan cow with gimblet hole in each horn, common size, no other marks or brands, valued at $18.

COW—Taken up by G L Kenoche, Middle Creek tp, one red and and white cow, spotted, white spot in forehead, and short tail, no other marks or brands visible.

Montgomery County—Ernest Way, Clerk.

COLT—Taken up by George Dutton, Independence tp, one chestnut sorrel mare colt about ten months old, both hind feet white above the hoof, blaze face, and no brands, valued at $15.

Wilson County—J. C. Tuttle, Clerk.

MARE—Taken up by James Mark, Verdigris tp, one flee betten grey mare about 18 years old with crop off of left ear, and harness marks, valued at $16.

COW—Taken up by J G Wright, Colfax tp, (Center Ridge P O,) one white cow with specks on sides and red neck and ears, with crop off right ear and swallow fork in left ear, about 5 years old, valued at $15.

A. PRESCOTT & CO.,

TOPEKA, KANSAS,

Have on hand

$100,000 TO LOAN

In Shawnee and adjoining Counties on good Farm security

At 8 and 9 per cent.,

Per Annum.

ADVERTISERS

Can learn the exact cost of any proposed line of Advertising in American Papers by addressing Geo. P. Rowell & Co's Newspaper Adv'g Bureau, 10 Spruce St., N. Y.

We manufacture the old reliable Stover—the well tried, strong, durable, self-regulating, solid wheel Wind Mill, which took the Centennial Diploma, as well as a Medal. Also O. E. Winger's improved $20 Feed Grinder, which is operated by Pumping Wind Mills—a novel and perfect mill for grinding all kinds of grain for stock and house use. Agents wanted. *Catalogue "F" free.*

Address E. D. WINGER, Successor to Stover Wind Engine Co., Freeport, Ill.

Or DONATHEN & WINGER, Kansas City, Mo.

1880 The Old Reliable 1880

Kansas City Price Current

AND

Live-Stock Journal.

Established 1873.

Is the Best and Largest Commercial paper in the West.

To Merchants it gives Railroad News, Tariffs, Freight Rates, etc., and Reliable Reports of the Wholesale Markets, Drift of trade, Agricultural Outlook, Trade Reviews, and Practical Comments, Editorials and News upon all questions affecting the commercial world.

To Grain Handlers it informs of the Transactions on 'Change in this city, the Movement of Crops, the Outlook and Market Reports from abroad.

To Stockmen it gives Thorough and Full Reports of the transactions at the Kansas City Stock Yards, News of the Drives, and Stock information from all sections of the world.

To Manufacturers it tells the price of Raw Material, Condition of Markets, and opens new fields for trade.

To Business Men of each, all and every class, it is exactly what its name implies A PRICE CURRENT.

To Farmers it tells of the crops, gives the honest prices paid for Produce, and contains Reports of Grain and Stock Markets that they may safely tie to.

TERMS $2 PER ANNUM.

SPECIAL INDUCEMENTS.

Dnring 1880 the following inducements are offered subscribers:

The Price Current and Weekly edition New York Sun, for 1 year postage paid, on receipt of $2 50.

The Price Current and Weekly editon Chicago Inter-Ocean for 1 year, postage paid, on receipt of $2 50.

The Price Current and Weekly edition Chicago News, for 1 year, postage paid, on receipt of $2 00.

The Price Current and Chicago Daily News, for 1 year, postage paid, on receipt of $3 50.

The Price Current and Dr. Kendall's valuable veterinary work, "The Horse and His Diseases," a book that every owner of a horse should possess, will be sent, postpaid, on receipt of $2 00.

The Kansas City Weekly Price Current is published every Friday by the

PRICE CURRENT PUBLISHING COMPANY

224 & 226 West Fifth Street, Kansas City, Mo.

Kansas Pacific Railway.

Lands! Lands!

KANSAS TO THE FRONT!

The Leading Wheat State in the Union in 1878 and the Fourth Corn State—The Great Kansas Harvest of 1878 was Solid for the Golden Belt.

The celebrated Grain Belt of country, in the limestone section of Central Kansas, traversed by the Kansas Pacific.

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

WHEAT! Kansas rises from the Eleventh Wheat State in 1877 to the FIRST WHEAT STATE in the Union in 1878, producing **26,518,958** bushels winter wheat, and **5,796,403** bushels spring wesat; total,

32,315,361

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

CORN! Kansas, the Fourth Corn State in the Union in 1878, produced 89,324,971 bushels of corn, of which the Golden Grain Belt counties produced **27,399,055** bushels, or **31** per cent., nearly one-third of the entire yield of the state, with an equally grand showing in all other departments of agriculture.

The foregoing facts show conclusively why

29 per cent of the increase of population in the State during the past four years; and

[illegible] per cent. in the increase in population during the past year, and

43 per cent. of the increased acreage of wheat in the state in 1878, belonged to the "Golden Belt."

A FARM FOR EVERYBODY.—62,500 farms—5,000,000 acres—for sale by Kansas Pacific—the Best land in America, at from $2 to $6 per acre one-quarter off for cash, or on 6 or 11 years credit at 7 per cent. interest. It don't take much money to buy a farm on the Kansas Pacific: $26 to $80 will secure 80 acres on credit, or $120 to $360 in cash will buy it outright.

Send to S. J. Gilmore, Land Commissioner, Salina, Kas., for the "Kansas Pacific Homestead," a publication that tells about Lands, Homesteads, Pre-emption, Soil, Products, Climate, Stock Raising, Schools, Wages, Land Explorers' Tickets, Rates, etc. It is mailed free to all applicants.

Read all you can gather about Kansas, and when you decide to start, be sure and start right by locating along the KANSAS PACIFIC RAILWAY.

T. F. OAKES, Gen'l Superintendent.

E. D. STOCKING,

BROKER,

176, Broadway, New York City. Specialty, exchange of Kansas farm and wild lands for

JEWELRY,

SILVER-PLATED WARE

WATCHES,

AND CUTLERY.

For price lists and terms, address as above. I will attend to purchase of all kinds of merchants and shipping same to merchants. E. D, STOCKING.

J. R. Swallow & Co.,

REAL ESTATE

AND

LOAN AGENTS,

75 SIXTH AVENUE EAST,

TOPEKA, KANSAS.

Real estate bought, sold, and exchanged; property rented; rents and all other collections made; Taxes paid; titles examined and abstracts furnished. Correspondence solicited.

IMPROVED FARMS.

City property, improved and unimproved. Can accommodate the man with large or small means.

UNIMPROVED LANDS

at low prices, on long time, and low rate of interest in counties having Railroads, Churches, Schools, and all advantages of old settled states.

Strawberry Culture

In all its details, with history and description of 40 leading varieties. The result of 24 years' experience and observation. A 20-page pamphlet, price 10 cts., which will count on first order received for plants. Price list free. M CRAWFORD, Cuyahoga Falls, O.

TOPEKA

Carbonated Stone and Pipe Works,

Manufacturer

PAVEMENTS

Drain and Sewer Pipe, Well Tubing, and all kinds of

Chimney Flues,

Wholesale and Retail Dealer in

CEMENTS,

LIME, PLASTER and HAIR.

Factory and Office on Kansas Ave., between 2d and 3d Streets.

M. A Spear, P.O. Box 170

HAWORTH'S

WIRE CHECK ROWER.

Acknowledged by all farmers who have used it to be THE BEST AND ONLY PERFECTLY SUCCESSFUL Wire Check Rower. Will plant *five acres more a day* than any other, as the *WIRE IS NOT REMOVED FROM THE MACHINE* in planting the entire field. Eleven years' use has demonstrated the fact that the ONLY SUCCESSFUL WAY to use a rope or wire line is for the machine to transfer it into position to plant the next row. *Do not buy a Wire Check Rower* unless the line crosses the machine, as it will last twice as long as a wire run on one side, which must be dragged into position regardless of obstructions met as the planter crosses the field, and which cause friction, inaccurate checking and breaking of the wire. In our check rower the elasticity of the wire and its large curve in passing over the machine, prevents a particle of bending or displacement in the wire, such as occurs in Check Rowers where the line is dragged into the pulley at an angle and high tension, and both bent and displaced as it enters the pulley. Dragging the line into position also causes canting, or lopping of the planter, by which one row is planted too deep and the other too shallow.

Our ROPE CHECK ROWERS are too well and favorably known to call for any extended notice.

For full description of our Wire Check Rower and the three styles of Rope Check Rowers which we manufacture, write for a circular.

HAWORTH & SONS, Decatur. Ill

DIPHTHERIA!

Johnson's Anodyne Liniment will positively prevent this terrible disease, and will positively cure nine cases in ten. Information that will save many lives, sent free by mail. Don't delay a moment. Prevention is better than cure. Sold Everywhere.

L. S. JOHNSON & CO., Bangor, Maine.

VALUABLE TRUTHS.

If you are suffering from poor health, or languishing on a bed of sickness, take cheer, for

Hop Bitters will Cure You.

If you are a minister, and have overtaxed yourself with your pastoral duties; or a mother, worn out with care and work, or if you feel weak and dispirited, without clearly knowing why,

Hop Bitters will Restore You.

If you are a man of business, weakened by the strain of your everyday duties; or a man of letters, toiling over your midnight work,

Hop Bitters will Strengthen You.

If you are young and suffering from any indiscretion, or are growing too fast, as is often the case,

Hop Bitters will Relieve You.

If you are in the work-shop, on the farm, at the desk, anywhere, and feel that your system needs cleansing, toning or stimulating without intoxicating,

Hop Bitters is What You Need.

If you are old, and your pulse is feeble, your nerves unsteady, and your faculties waning,

Hop Bitters will give you New Life and Vigor.

HOP COUGH CURE is the sweetest, safest and best. Ask Children.

One HOP PAD for Stomach, Liver and Kidneys is superior to all others. Cures by absorption. It is perfect.

D. I. C. is an absolute and irresistible cure for drunkenness, use of opium, tobacco and narcotics.

Aforesaid by druggists. Hop Bitters Mfg. Co. Rochester, N. Y.

WARNER'S SAFE KIDNEY & LIVER CURE

(Formerly Dr. Craig's Kidney Cure.)

A vegetable preparation and the **only sure remedy** in the world for **Bright's Disease, Diabetes, and ALL Kidney, Liver, and Urinary Diseases.**

Testimonials of the highest order in proof of these statements.

For the cure of **Diabetes**, call for **Warner's Safe Diabetes Cure.**

For the cure of **Bright's** and the other diseases, call for **Warner's Safe Kidney and Liver Cure.**

WARNER'S Safe Remedies are sold by Druggists and Dealers in Medicine everywhere.

H. H. Warner & Co.

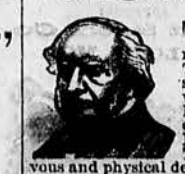
Proprietors,

ROCHESTER, N. Y.

Send for Pamphlet and Testimonials.

Sold by Stringham, Barnes & Co., Swift & Holliday and Jones Bros., Topeka, and by W. N Angle and Arnold's Drug Store, N. Topeka.

KNOW THYSELF.



THE untold miseries that result from indiscretion in early life may be alleviated and cured. Those who doubt this assertion should purchase the new medical work published by the PEABODY MEDICAL INSTITUTE, Boston, entitled **THE SCIENCE OF LIFE**; or, **SELF-PRESERVATION.** Exhausted vitality, nervous and physical debility, or vitality impaired by the errors of youth or too close application to business may be restored and manhood regained.

Two hundreth edition, revised and enlarged, just published. It is a standard medical work, the best in the English language, written by a physician of great experience, to whom was awarded a gold and jeweled medal by the National Medical Association. It contains beautiful and very expensive engravings. Three hundred pages, more than 50 valuable prescriptions for all forms of prevailing disease, the result of many years of extensive and successful practice, either one of which is worth ten times the price of the book. Bound in French cloth, price only $1, sent by mail, post-paid.

The London Lancet says: "No person should be without this valuable book. The author is a noble benefactor."

An illustrated sample sent to all on receipt of 6 cts. for postage.

The author refers, by permission, to JOS. S. FISHER, president; W. I. P. INGRAHAM, vice president; W. PAINE, M. D.; C. S. GAUNTT, M. D.; H. J. DOUCET, M. D.; R. H. KLINE, M. D.; J. R. HOLCOMB, M. D.; N. R. LYNCH, M. D., and M. R. O'CONNELL, M. D., faculty of the Philadelphia University of Medicine and Surgery; also the faculty of the American University of Philadelphia; also Hon. P. A. BISSELL, M. D., president of the National Medical Association.

Address Dr. W. H. PARKER, No. 4 Bulfinch Street, Boston, Mass. The author may be consulted on all diseases requiring skill and experience.

HEAL THYSELF.

BEST BUTTER

MADE BY

THE COOLEY CREAMER.

Farmers and butter makers of Kansas, we wish to call your attention to the great success of the Cooley Creamer—the submerged process of setting milk for raising cream—as evidenced by the large sales of the past 12 months, the hundreds of letters written in praise of it, the universal approval of it by the agricultural press of this country, the fact that at the London International Dairy Fair, and at the State and County Fairs all over this country, Cooley Creamer butter and the *process* itself has ALWAYS taken first premium.

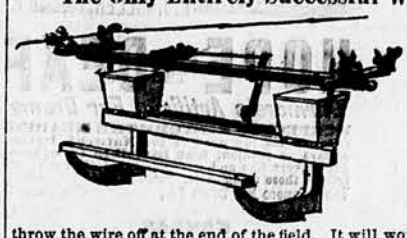
Extracts taken from letters received from parties using the Creamer:

"Proves to be a decided success."—"It is worth ten times its cost."—"The saving of labor is fully 50 per cent,"—"Would not do without it if I had but one cow."—"Am getting from 5 to 8 cents a pound more than those making by the old process."—"I placed it in a small battened leanto attached to my barn, where it has worked equally well in the coldest as well as in the mildest weather."—"But the advantages are no more for summer than for winter use: have used it all winter in a room without fire.'—"If I had but two cows I should use one, knowing that I can make a better quality of butter and more of it, with much less labor."

To the many that have signified to us their intention of getting one next spring, we say, purchase *now* and get the benefit of it during the winter while butter is high, it is equally as valuable for winter as for summer use. We want good agents in every county not taken. For a copy of Chicago Dairyman giving prices and information send to LYMAN & SHAFFER, STATE AGENTS, 100 Kansas Avenue, Topeka.

Barnes' Wire Check Rower.

The Only Entirely Successful Wire Check Rower Ever Invented.



Seven years practical use has proven the success of the Barnes' Wire Check Rower beyond question. It is fast taking the lead with dealers and among the farmers who have rendered an unanimous verdict that it is the best Check Rower made.

The following are the advantages over any other check Rower:

Use of WIRE in place of a rope, and that one wire will outlast two ropes.

The wire will not stretch and shrink like a rope.

The wire is as easy to handle as a rope.

The wire does not cross the machine.

There is no side draft.

It will plant perfectly and more in check.

The operator does not have to get off the machine to throw the wire off at the end of the field. It will work any planter as now made.

It is easy to work and to understand. It is durable in all its parts. Take no other.

CHAMBERS, BERING & QUINLAN, Exclusive Manufacturers, Decatur, Ill.

For sale by SMITH & KEATING, General agents for Kansas. Dealers in Agricultural Implements, Kansas City, Mo.

Only Double Ring Invented.

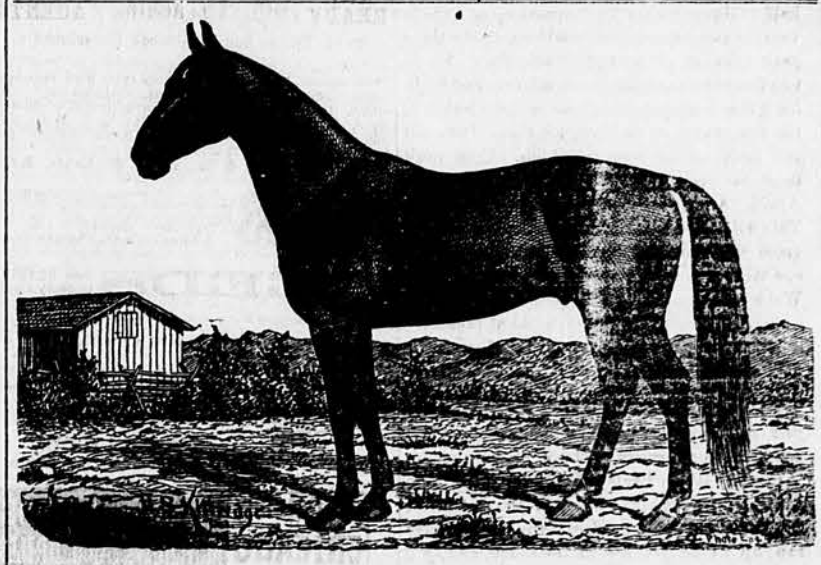
Champion Hog Ringe

RINGS & HOLDER.

No sharp points in the flesh to cause irritation and soreness, as in case of rings that close with the joints in the flesh, and produce soreness of the nose. The Champion Hog Holder speaks for itself in the above cut.

Only Single Rings ever invented that closes on the outside of the nose. **BROWN'S ELLIPTICAL RING** and Triple Groove Hog and Pig Ringer. This is the only Single Ring ever invented that closes on the outside of the nose. It overcomes a serius defect in all triangular and other rings which close with the joints together in the flesh causing it to decay and to keep the hog's nose sore.

CHAMBERS, BERING & QUINLAN, Exclusive Manufacturers, Decatur, Ill.



"VICTOR KNIGHT."

Imported Clydesdales,

ALSO

HAMBLETONIANS,

And other desirable strains of

Trotting Stock,

For Sale **Cheap** and on **Easy Terms.**

All Stock guaranteed to be as represented. Catalogues sent free. Address,

POWELL BROS.

Springboro, Crawford Co., Pa.

Golden Medical Discovery

Dr. Pierce's Golden Medical Discovery cures all **Humors**, from the worst **Scrofula** to a common **Blotch, Pimple**, or **Eruption, Erysipelas, Salt-rheum, Fever Sores, Scaly or Rough Skin**, in short, all diseases caused by bad blood, are conquered by this powerful, purifying, and invigorating medicine.

Especially has it manifested its potency in curing **Tetter, Rose Rash, Boils, Carbuncles, Sore Eyes, Scrofulous Sores and Swellings, White Swellings, Goitre or Thick Neck**, and **Enlarged Glands.**

If you feel dull, drowsy, debilitated, have sallow color of skin, or yellowish-brown spots on face or body, frequent headache or dizziness, bad taste in mouth, internal heat or chills alternated with hot flushes, irregular appetite, and tongue coated, you are suffering from **Torpid Liver**, or **"Biliousness."** As a remedy for all such cases Dr. Pierce's Golden Medical Discovery has no equal, as it effects perfect and radical cures.

In the cure of **Bronchitis, Severe Coughs, Weak Lungs**, and early stages of **Consumption**, it has astonished the medical faculty, and eminent physicians pronounce it the greatest medical discovery of the age. Sold by druggists.

Dr. Pierce's Pleasant Purgative Pellets

SIZE OF PELLETS

The "Little Giant" Cathartic.

No use of taking the large, repulsive, nauseous pills. These Pellets (Little Pills) are **scarcely larger than mustard seeds.**

Being **entirely vegetable**, no particular care is required while using them. They operate without disturbance to the system, diet, or occupation. For **Jaundice, Headache, Constipation, Impure Blood, Pain in the Shoulders, Tightness of Chest, Dizziness, Sour Eructations from Stomach, Bad Taste in Mouth, Bilious attacks, Pain in region of Kidneys, Internal Fever, Bloated feeling about Stomach, Rush of Blood to Head**, take **Dr. Pierce's Pleasant Purgative Pellets.** Sold by druggists.

WORLD'S DISPENSARY MEDICAL ASSOCIATION, Prop'rs, Buffalo, N. Y.

WATCHES! CLOCKS!

JEWELRY!

SILVER--PLATED WARE!!

Large stock and Low Prices at JAMES DOUGLASS' 205 Kansas Ave., Topeka, Kas.

NEW CASH

SADDLE AND HARNESS MANUFACTORY AT

135 Kansas Avenue, Topeka, Kansas.

H. D. CLARK, Manufacturer of Leather, Saddles, Harness, &c.. aad Dealer in Leather,

WHIPS,

Shoe Findings, etc., Wholesale and Retail.

FOR CASH ONLY.

Cash paid for hides, tallow, sheep pelts and furs.

Communications.

Early Pasture.

Hesper grange was reorganized and a full set of officers elected and installed, Saturday, February 28th. I asked the opinion of our grange on sowing oats for sheep pasture. It was decided that oats would not last long enough, to pasture it down, if it was hot and dry, they would dry out. It was stated that rye, sowed in the spring, was much better; that it would stand the dry weather and grow right along and make good pasture the most of the summer. A neighbor had sowed oats and rye together; said the oats were soon killed, while the rye was not hurt in the least, and continued to make good pasture for months.

I am going to sow rye, and will report result to the FARMER. Farmers have a great many good things that they keep hid under a bushel, and I am glad to see the FARMER trying to get them to "speak out in meeting." They can generally be brought out in the grange; then if some one would report their experience to the FARMER, we would have them. N. W. H.

Hedge Fences.

EDITOR FARMER:—I have taken the KANSAS FARMER for the last twelve years, since it was edited by Mr. Anthony. Have seen a good many articles on hedge fence. I have had twenty-two years experience in the business in that time, and have set and grown several hundred miles of fence.

The best plan to pursue is to cultivate your hedge row thoroughly in the fall. The spring following procure medium sized plants, fresh from the nursery, harrow well the ground, stretch a line where you want your hedge to stand, or plow one deep furrow. Set plants three inches deeper than they were in the nursery as the ground will settle from one and a half to three inches by frequent rains. Cultivate for two years as you would corn; the third year trim off all straggling branches. Every two feet cut one of the plants off four feet high, hack the balance within one or two inches of the root, about one-half off, lop them down till the hedge stands four feet high. This work must be done the latter part of March, or in April. After this operation trim in August. This will serve to dwarf the fence. It will require ten thousand five hundred plants to set one mile of fence. I agree with brother F. C. Webb in trimming and keeping down to proper height, which very few of us do at present.

E. H. HARROP.

Shawnee Co., Kas.

LANGDON, Reno Co., March 1.—We have just had a cold snap, but to-day is clear and beautiful, and farmers are busy plowing again. It turned cold on Friday, February 27th. The morning was pleasant, but soon the northwest wind began blowing hard, and the thermometer ran up to 24 degrees in the shade, and by 2 o'clock to 18 degrees. On the next morning it was 5 degrees above, and only 2 degrees above on Sunday morning. It was 18 degrees above this morning.

It has been very dry here this winter, but I do not think the freeze has damaged the fruit buds, or the wheat, too much extent. Wheat and rye never looked better here at this time of the year. B. P. HANAN.

CHEROKEE Co., Feb. 23.—Away down in Cherokee county, close to the Indian nation, the weather is warm and beautiful; plows are running; blue birds singing; thousands of bushels of corn going to market at 21 cents; money plenty; people in good spirits generally. Wheat nearly all sold; worth $1 per bushel; cattle, 3c to 3½c; hogs the same; horses, $50 to $80. Our wheat last year was the best crop we ever raised in this neutual land; a much larger acreage sown this year than last. Never saw the wheat look better at this time of year; had just enough rain to keep the ground in fine condition.

If I was a writer for the papers, I would like to give the readers of the old war-horse, the KANSAS FARMER, some of the advantages they would have by coming to this county, but as I am not, they will have to come and see for themselves. R. C.

The above is a very good beginning. We advise R. C. to try again. Let us know your post office and we will send you some correspondent's blanks.

LINDSBURG, McPherson Co., March 4.—The people of this part of our glorious state have had many reasons to feel thankful and happy this season. First the S. & S. W. railroad that has given us a near market for our products, and reduced the price on coal about one-third.

Our present main crops are wheat and broom corn, but the late heavy frost has lessened the prospect for wheat one-third; especially is this the case on old land, on new land it does not seem to be injured as much. If the wheat should fail there will be planted a large crop of broom corn.

Hogs, the principal stock here, are looking well and selling at a good price, $3.40 to $3.50. Horses and cattle in good condition.

Spring work, such as plowing, spring wheat and oat sowing and tree planting, is now in full blast; but everybody is hoping for rain soon, and without rain ten days more, with these windy and hot days, wheat will not be a half crop here.

There is considerable sickness and several deaths have occurred lately. The prevailing diseases being fever, diphtheria and colds.

One important question for the farmers in this part of the state, will be how to raise tame grasses. I have tried timothy and clover, but it did not make a good stand. I have also tried bluegrass but without success. The only kind that has done well on this loose sandy soil is alfalfa clover. I have a splendid hog pasture of ten acres in alfalfa, that has been very heavy for four years, yielding from three to four tons per acre when cut for hay; but my wife thinks that it does not make good butter, and does not want the milch cows to feed on it. All other stock prefer it to any other kind of hay.

Wheat is selling, No. 3, 92c; corn, 25c; potatoes, 75c; oats, none to sell; butter, 15c. Good work horses sell for $75 to $125. Farm hands get $12 to $15 per month during the summer and fall months, and are very plenty, coming from the southwest counties of the state.

L. N. H-g.

Advertisements.

NONPAREIL FARM & FEED MILLS
The Cheapest and Best.
Will Crush and Grind Any thing.
Illustrated Catalogue FREE.
Address L. J. MILLER, Cincinnati, O.

HOPE FOR THE DEAF
Garmore's Artificial Ear Drums
PERFECTLY RESTORE THE HEARING and perform the work of the Natural Drum. Always in position, but invisible to others. All Conversation and whispers heard distinctly. We refer to those using them. Send stamp for circular to The Garmore Ear Drum Co., Cincinnati, O.

KANSAS
Staats--Anzeiger.
The Largest German Paper in the State.
Devoted to the
Interests of the State of Kansas.
If you want to reach or communicate with the German speaking people of the state, advertise in or subscribe to, the STAATS-ANZEIGER.
PHIL. SCHMITZ, Publisher,
209 Kansas Avenue, Topeka.

NOW READY { THE Object Teaching } FOR AGENTS.
Stock Doctor and Live-Stock Encyclopedia,
embracing *Horses, Cattle, Sheep, Swine and Poultry*—their breeds, breeding, training, care and management; their diseases, prevention, symptoms and remedies. Giving latest and most enlightened methods. By *J. D. Russell Manning, M. D., V. S.* With 1000 pages, 400 illustrations, and 2 superb charts. *The book for agents.* For terms address
N. D. Thompson & Co., Pubs., St. Louis, Mo.

SEEDS Our large Illustrated Catalogue of everything for Farm and Garden Mailed Free to All. It will pay you to send for it. HENSON, MACLE & CO., 325 Church St., Philadelphia, Pa.

SEEDS and PLANTS of every kind always on hand. Bouquets, Cut Flowers and Ornamental Work made up at short notice. Sole Agents for Vick's Flower and Garden Seeds. Send for Catalogue. CINCINNATI FLORAL CO., 187 & 189 W. Fourth Street, Cincinnati, O.

CHERRY TREES, Pear, Plum and Peach trees, Grape Vines and small fruits and Best General Nursery Stock in the West. Price list free.
KELSEY & CO., St. Joseph, Mo.

YOU CAN BUY IN CHICAGO OF J. C. VAUGHAN 45 LA SALLE ST. Gregory's SEEDS, Matthews' Seed DRILLS, BULBS & LILIES.

GRAPE VINES,
Small Fruits, Roses and Fruit Trees. 1,000,000 of Concord, 1 year, $12 to $18 per 1000; 2 year, $20 to $25. All other varieties cheap.
Dr. H. SCHROEDER, Bloomington, Ill.

Market Gardener.
Fresh, Pure Seeds for you. Send for Garden Manual and Price List for 1880. J. B. ROOT, Seed Grower, Rockford, Ill.

Cottonwood Trees.
Trees 2 to 3 ft $2 50 per thousand. Five thousand or more in one order $2 00 per thousand.
Address
Hans Nielson,
St. Joseph, Mo.

Jerusalem Artichokes AND Snowflake Potatoes
at 50cts per peck; $1 50 per bushel; 3 lbs by mail $1 00.
H. GRIFFITH, Topeka, Kas.

DO NOT FAIL to send for our Price List for 1880. FREE to any address upon application. Contains descriptions of everything required for personal or family use, with over 1,200 Illustrations. We sell all goods at wholesale prices in quantities to suit the purchaser. The only institution in America who make this their special business. Address,
MONTGOMERY WARD & CO.,
227 & 229 Wabash Ave., Chicago, Ill.

SEEDS
Western Seeds beats the world. Mine takes the lead. Fresh, pure cheap and warranted. Prices below every firm. I give more extra as presents than all firms. I have issued 20 000 prettiest books on gardening ever printed. Every vegetable and flower pictured and described. Worth many dollars to any one. Send for free Garden-Guide and Seed Catalogue and see that I beat them all.
R. H. SHUMWAY, ROCKFORD, Ill.

TREES The most complete assortment in the West. A particularly fine lot of Standard Pear Trees. Full stock of Apple, Plum, Pear, Peach, Cherry, Quince, etc. A select lot of Grapes, Gooseberries, Raspberries, Currants, Strawberries, etc., etc. An immense stock of EVERGREENS both common and NEW AND RARE, at bottom prices. Ornamental Deciduous Trees, Shrubs, Vines, Roses, etc., etc. Large lot of Greenhouse Plants. Trade-List and Greenhouse Catalogues free. Descriptive Catalogue, 10 cts. 27th Year. 400 Acres. 15 Greenhouses.
STORRS, HARRISON & CO.
PAINESVILLE, LAKE CO., OHIO.

1866 FOURTEENTH YEAR. 1880
SWEET POTATOES.
Largest Stock, all leading varieties in choice condition. Put aboard cars here or at Kansas City at $5 per barrel, less in large quantities.
E. C. CHASE,
Glenwood, Johnson Co., Kas.

Osage Orange Seed,
Crop of '79. Fresh from Texas. Send for sample and prices. Also fine lot 4-year-old apple trees cheap.
W. H. MANN & CO. Gilman, Ill.

Plants by Mail.
20 Verbenas in variety for $1. 12 Geraniums in variety for $1. 12 Fuchsias in variety for $1. 15 Carnations and hardy pinks for $1. Other plants at corresponding rates. Address
Hans Nielson,
St Joseph Conservatories, St. Joseph, Mo.

Evergreens & European Larch.
I offer a very large stock of Evergreens and Larch—large and small—all nursery grown. Prices very low. Price-list free. Address D. HILL, Dundee Nursery, Kane Co, Ill.

Sweet Potatoes
For Seed,
AND
Plants in their Season.
N. H. Pixley, Wamego, Kansas, has about 1000 bushels of Sweet Potatoes, including 5 varieties of
Nansemond, Brazillian, Southern Queen and Peabody.
New Seedlings. Sold at low rates and in quantities to suit. Will ship to any point. Address N. H. PIXLEY, Wamego, Kas. Will be ready by the middle of May.

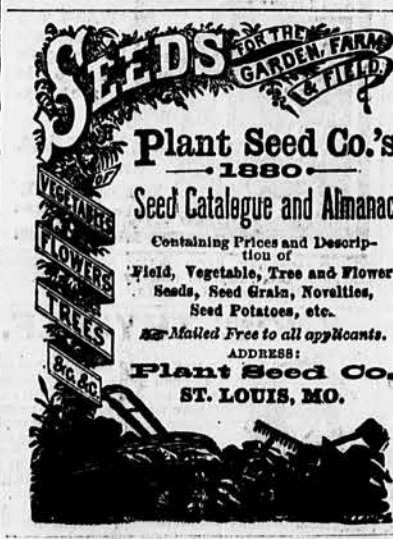
GRAPE VINES.
Largest stock in America. Prices extraordinarily low. Also Trees, Small Fruits, Strawberries, &c. Price and Descriptive List Free.
T. S. HUBBARD, Fredonia, N. Y.

Kansas Seed House
F. BARTELDES & CO.,
Lawrence, Kas.
SEEDS
of all kinds and descriptions. Catalogues mailed free.

THE DINGEE & CONARD COMPANY'S
BEAUTIFUL EVER-BLOOMING
ROSES.
THE BEST IN THE WORLD.
Our Great Specialty is *growing* and *distributing* these Beautiful Roses. *We deliver* STRONG POT PLANTS suitable for *immediate* bloom, *safely by mail* at all post-offices. 5 Splendid Varieties, *your choice*, all labeled, for $1; 12 for $2; 19 for $3; 26 for $4; 35 for $5; 75 for $10; 100 for $13. Send for our New Guide to Rose Culture—64 pages elegantly illustrated—and *choose* from over Five Hundred Finest Sorts. Address
THE DINGEE & CONARD CO.,
Rose Growers, West Grove, Chester county, Pa.

BERMIES, QUEEN of the MARKET the largest and best. 2,000,000 *Sharpless Strawberries.* 1,000,000 *Miner's Great Prolific.* 10 acres other *choice varieties.* 2,625 bushels Berries grown at Fomona Nursery in 1879. A new race of Pears. Kieffer's Hybrid, Blight-Proof; *hardy and productive*, bears early, fruit large, and of good quality. Send for Catalogues free.
WM. PARRY,
Cinnaminson, N. J.

SPECIALITIES 1880.
Early Amber Cane Seed; Bohemian Hulless Oats; Early Russian Spring Wheat; Egyptian or Pearl Millet; New Varieties of Field Corn; Vegetable and Flower Seed; Seed Potatoes, etc.
Send for our Seed Catalogue, containing descriptions, prices, etc. Mailed Free to all. Address,
Plant Seed Company,
ST. LOUIS, MO.



Plant Seed Co.'s
1880
Seed Catalogue and Almanac
Containing Prices and Description of Field, Vegetable, Tree and Flower Seeds, Seed Grain, Novelties, Seed Potatoes, etc.
Mailed Free to all applicants.
ADDRESS:
Plant Seed Co.
ST. LOUIS, MO.

TREES and PLANTS,
If you want to sell
GRAPE VINES,
SMALL FRUITS
and choice varieties of
PEACHES, PEARS, CHERRIES, PLUMS, ETC., ETC.,
on commission. I will give you the
Most Liberal Terms
of the age. Park Nursery & City Garkens, Lawrence, Kas. P. P. PHILLIPS.

LOW! BOOM! LOOK!
Apple trees, 2 and 3 years old, $10 per 100.
Turner and Brandywine Raspberry, $1 25 per 100.
Mann cluster Raspberry, $1.10 per 100.
Chas. Downing & Crescent Strawberry, $1 per 100,
Linnaeus Rhubarb, 50c per 12.
Asparagus Colossal, 75c per 100.
Kittatenny Blackberry, $1 per 100.
Concord Grape Cuttings, $1 per 100.
Packed and delivered to rail-road or express free. Agents' commission saved. Plants and trees No. 1, and true to name. Save money and send to
E. J. HOLMAN, Leavenworth, Kas.

My Annual catalogue of Vegetable and Flower Seed for 1880, rich in engravings from photographs of the originals, will be sent FREE to all who apply. My old customers need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any Seed House in America, a large portion of which were grown on my six seed farms. Full directions for cultivation on each package. All seed warranted to be both fresh and true to name; so far, that should it prove otherwise, I will refil the order gratis. The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables, I invite the patronage of all who are anxious to have their seed directly from the grower, fresh, true, and of the very best strain. New Vegetables a Specialty
JAMES J. H. GREGORY, Marblehead, Mass

AMBER SUGAR-CANE SEED.
35 cts per lb, postage paid. Less rate on 5 or more pounds, sent by express. Special rates on one to five bushel orders. Do not grow common sorghum, when you can get a superior syrup from the Amber cane at a small cost for seed. S. H. Downs, Topeka, Kas.

Farm Machinery.
Browne and Canton Sulky Plows, Stalk Cutters, Harrows, Drills, Cultivators, Climax Mowers and Reapers. Call and see the Rockford Combined Drill and Planter, Iron Turbine and Stover Wind Mill.
SEEDS.—All kinds of Field, Garden and Flower Seeds. Fresh and true to variety.
KANSAS IRON FENCE.—Cheaper than board fence. Call and see it. S. H. DOWNS, Opposite Shawnee Mills, Topeka, Kansas.

SEEDS SEEDS
Red Clover, White Clover, Alfalfa Clover, Alsike Clover, Timothy, Blue Grass, Red Top, Orchard Grass, German Millet, Common Millet, Pearl Millet, Hungarian, Black Oats, White Oats, Red Rust Proof Oats, Odessa Wheat, Onion Sets, Onion Seeds, Peach Pits, Black Walnuts, Osage, Honey Locust, White Corn, Yellow Corn, Egyptian Rice Corn, California Evergreen Broom Corn, Early Amber Sugar Cane, Navy Beans, Medium Beans, Caster Beans, Flax Seed, Artichokes, Northern Rose, Peach Blows, Peerless, Snowflake and Brownell Beauty Potatoes.

Garden Seeds,
Flower Seeds,
Everything in the Seed Line.
We will meet the prices of any other responsible Seed House in the United States of same date; quantity, quality and freights considered. Send for our 1880
Catalogue & Almanac
Containing prices of goods in our
Seed Department,
Ag. Imp. Department,
& Carriage Department
Sent Free.
Trumbull, Reynolds & Allen,
Kansas City, Mo

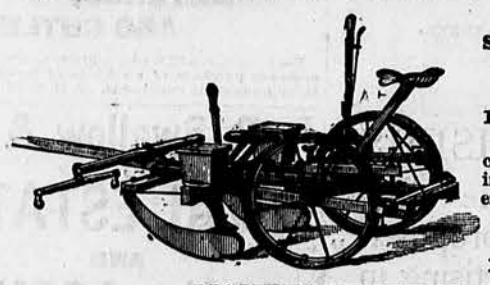
THE Weekly Capital
THE DOLLAR FAMILY NEWSPAPER.
J. K. HUDSON
EDITOR AND PROPRIETOR.
The Weekly Capital, published at Topeka, Kansas, is sent postage paid one year for one dollar. It contains latest general telegraphic news, news from the principal cities of the state, and contributed and selected news from every county in Kansas, the decisions of the Supreme Court, proceedings of State meetings, conventions and such general literary miscellany and local intelligence from the State Capital as to make it desirable in every family. Send one dollar by registered letter or post-office order, and receive the paper one year.
Special Announcement.
During March, 1880, the Capital will be enlarged to a 48-column paper. Subscriptions taken at any time for one year, and the paper discontinued at the end of the time for which it is paid.
Sample copy sent free to any applicant. In sending names to the Weekly Capital mention the name of this paper and write address plainly.
Address
J. K. HUDSON,
Topeka, Kansas.

FARMERS' HOMEOPATHIC VETERINARY Hand-Book.
We have long realized the need to all stock owners of a plain practical hand book for the immediate treatment of all diseases and accidents common to domestic live stock, as too frequently a valuable animal can be saved or a long and expensive case of sickness prevented by knowing just what to do and what medicine to give when first discovered. We can therefore fully recommend to our readers the
FARMERS' HOMEOPATHIC
Veterinary Hand-Book,
which has been prepared with much care especially to meet this want, by J. W. JOHNSON, V. S., one of the most successful Veterinary Surgeons of the country, in which he gives the owners of this book, in the most condensed possible form, the full benefit of his twenty-four years of very extensive practice in the treatment of animal ailments. It is plain and practical, and what makes it especially valuable, it is modern, giving the symptoms and prescriptions for treatment, and directions for nursing for all diseases common to
HORSES, CATTLE, SHEEP, SWINE and DOGS.
It is a book of 132 pages, tastefully and substantially bound in best English cloth. Price by mail, postage paid, only 75 cents; or with the KANSAS FARMER one year, both for $2 15. Address all orders to the office of the KANSAS FARMER.

THE POULTRY WORLD,
(Monthly,) and
The American Poultry Yard,
(Weekly). Both publications are exclusively devoted to Poultry. Published by H. H. STODDARD, Hartford, Conn. The Poultry World is sent post-paid for $1 25 per year; the American Poultry Yard for $1 50. Both papers for $2 00. A series of 12 magnificent chromos, each representing a standard breed of fowls sent for 75 cents extra, to all subscribers of either publication.

HAY & STRAW PRESSES.

DEDERICK'S HAY AND STRAW PRESSES are guaranteed cheaper at price than any others as a gift or no sale. If inexperienced purchasers are confused by manufacturers of inferior machines who claim their presses are best, then order a press of each on condition that you keep the best, and advise all that DEDERICK'S PRESS will be there. The absence of all others will then convince you that DEDERICK'S PRESSES are beyond competition, Grand Centennial and Paris World's Fair Prizes, and all the United States Fair Premiums for years past for DEDERICK'S PRESSES. Beware of presses infringing Dederick's Pat. Press and Bale. Address, for catalogue,
N. B.—The attention of the public is respectfully invited to other advertisements of Hay Presses which have appeared in these columns, all of which make Dederick's patent sectional quadrilateral bale bound lengthways, and by Dederick's patent process and machinery, and some even have the cheek to use Dederick's Continuous Hay Press patent, without which the operation must stop to tie and remove the bale. Dederick has suits pending to enforce these patents, and will in due time prosecute every purchaser for $10,000 damages. Meantime he earnestly remonstrates against this high handed piracy of his property, and warns the public against being swindled into partnership in a steal with unscrupulous characters. Why join a steal for the benefit of thieves and receive an inferior machine, when the same price will purchase a good one of the owner. While Dederick bore the immense expense of introducing these improvements that are such a benefit to the hay interests of the country, these communists opposed him, and now propose to steal not only Dederick's patents, but the capital represented by its introduction into use. Send for free copies of patents in proof of this.
Address P. K. DEDERICK & CO., Albany, N. Y.

THE (W)RIGHT CORN PLANTER.

For Simplicity, Strength, Perfection in its working capacity, and ease of draft, IT HAS NO EQUAL.
Check rowers or other mechanical devices for check rowing or drilling corn, can be operated successfully on the
NEW (W)RIGHT ROTARY PLANTER.
NEW AND IMPROVED ROTARY DROP.
MANUFACTURERS OF
MONGER'S IMPROVED PLOW ATTACHMENT,
PUSEY'S SELF-PILOTING CULTIVATOR,
AND
FOULKS' IMPROVED AUTOMATIC CARPENTER'S VISE.
Write for descriptive circular and prices.
Agricultural and Machine Works,
Cambridge City, Indiana.

IMMENSE REDUCTIONS!
PIANOS AND ORGANS
AT WHOLESALE FACTORY PRICES.
This magnificent Organ, the Paragon Style, No. 440, 5 octaves, 8 sets of reeds, 13 stops, solid walnut case highly finished (74 inches high, 48 inches wide, and 24 inches deep), with Stool and Book, only $85.00 Warranted 6 years. Shipped on 15 days' test. NO MONEY required until you are fully satisfied. *Freight charges paid both ways if unsatisfactory.*

PIANOS.	ORGANS.
$145, $150, $165, $225, and $250, with Cover, Stool, and Book.	$45, $50, $65, $75, $80, $85, $90, $100, $190, with Stool and Instruction Book.

Order direct from this advertisement, giving as reference any Bank, Banker, or Business Firm. Catalogue Free. Address the manufacturer,
JAS. T. PATTERSON, P. O. Drawer 12, Bridgeport, Ct., U. S. A.