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## The Kansas Farmer.

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### FISH CULTURE.

BY HON. D. B. LONG, COMMISSIONER OF FISHERIES, ELLSWORTH, KAS.

The following law is published for the benefit of those who have or hereafter may obstruct, any of the streams of Kansas by building dams; for those who are in the habit of seining and netting, etc., within eighty rods of any fishway, in violation of sections 6 and 7 of said act, and for the general information of those interested in replenishing our streams and ponds with food fishes:

AN ACT authorizing the appointment of a Commissioner of Fisheries, and for the protection of fish in the waters of the State of Kansas, and making appropriations for the salary of the Commissioner.  
Be it enacted by the Legislature of the State of Kansas:

SECTION 1. A Commissioner of Fisheries of the State of Kansas is hereby established, as hereafter provided for in section three of this act.

SEC. 2. It shall be the duty of the Commissioner to examine the various rivers, lakes and streams of the State of Kansas, with a view of ascertaining whether they can be rendered more productive of fish, and what means are desirable to effect this object, either in restoring the production of fish in them, or in protecting or propagating the fish that at present frequent them, and to stock the same with fish as means for that purpose may be supplied by the United States Commissioner, and by the societies and individuals interested in the propagation of fish or otherwise; and such Commissioner shall report the result of his labors, and any recommendations he may offer, annually, to the Governor of the State.

SEC. 3. The Governor shall have power to appoint a Commissioner, to hold office for two years, who shall receive three dollars per day and ten cents per mile for actual time and distance traveled: *Provided*, That the amount actually paid shall be charged as mileage on railroads, and that not more than fifty days in each year shall be devoted in carrying this act into effect.

SEC. 4. It shall be unlawful for any person or company to obstruct any of the streams of the State of Kansas, by building a dam, or otherwise, without constructing a "fishway."

SEC. 5. Any person or company owning or operating a dam on any of the streams of the State of Kansas shall, within one year after the passage of this act, construct a fishway that will permit all kinds of fish to pass up the stream, except in cases where in the opinion of said Commissioner such dam will permit the passage of fish.

SEC. 6. It shall be unlawful for any person to fish with seine, net, or otherwise, within eighty rods of any fishway, or from any private fish preserve, pond or stream, owned and used for the propagation of fish, without the owner's consent.

SEC. 7. It shall be unlawful for any person to catch with a seine or net any of the fish in the waters of the State of Kansas during the months of April, May and June in each year.

SEC. 8. Any person or company violating any of the sections of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof before any court of competent jurisdiction, shall be fined for violating section four or five of this act, not less than one hundred nor more than one thousand dollars; and for violating section seven or eight of this act, shall be fined not less than five nor more than fifty dollars, and shall stand committed until such fine is paid.

SEC. 9. It shall be the duty of the Fish Commissioner to see that the provisions of this act are enforced, and for this purpose shall have the power to call to his assistance the county attorney of any county in which the provisions of this act are violated, to manage and prosecute the case.

SEC. 10. Five hundred dollars for the year 1877, and five hundred dollars for the year 1878, or as much of it as is necessary, are hereby appropriated out of any funds not otherwise appropriated, to carry this act into effect.

SEC. 11. This act shall take effect and be in force from and after its publication in the *Daily Commonwealth*.

Approved, March 5, 1877.

I hereby certify that the foregoing is a true and correct copy of the original bill now on file in my office, and that the same was pub-

lished in the *Daily Commonwealth*, March 10, 1877. THOS. H. CAVANAUGH,  
Secretary of State.

To the people of Kansas, fish culture is a new industry; but to many of the States of our Union, and the civilized countries of the Old World, it is no longer an experiment. Although the art in the United States is yet in its infancy, enough is known of the success of this important enterprise by the many different States, that they have enacted laws for the protection, preservation and propagation of the food fishes, authorizing the appointment of commissioners of fisheries, appropriating funds to defray the expenses of stocking the streams and lakes with the different kinds of fish. In no State that has given the art a fair trial has the law been abolished, but encouraging reports of the success of the enterprise come from every State.

Kansas, as usual, not wanting in pluck and energy, enrolled her name on the list of States, already large, that have enacted laws for the protection of the finny tribes occupying the waters of their States. Comprising a territory larger than the whole of the New England States, with its numerous streams, ponds and lakes, it furnishes a very large field for labor. Confident of ultimate success, I cannot but mention the fact, that this enterprise, like all other new industries, must meet difficulties, prejudices, and opposition from every quarter. It will require time and patience to make this enterprise successful, which never can be unless the law for the protection of fish is observed. It should be a moral obligation upon every law-abiding person to aid in this great work. Our large streams of water have their offices to perform in the problem of existence, as well as the valleys through which they flow, and they will yield as rich treasure under generous treatment as do the fertile lands that give to our State its world-wide reputation.

### FISHWAYS.

The first and most important principle necessary to the success of fish culture in any State, is to give the fish the freedom to go to their natural spawning-grounds, the headwaters of streams. Prevented from doing this by impassable dams or other obstructions thrown across streams, they become wasteful; and in time will disappear below as well as above the obstruction. It is as natural for fish to ascend a stream to deposit their spawn, as for birds of the air to seek a birthplace in the branch of a tree to reproduce their young. With these facts before us, the importance and necessity of constructing dams that will permit fish to ascend the streams, are apparent to every intelligent mind.

### TO CONSTRUCT A FISH-WAY.

Many plans have been adopted. Any plan that will answer the purpose is all the law requires. A fish-way is but an artificial imitation of the means by which river fish in their yearly migrations pass up rapids. The fish in their upward course reach the foot of the rapids. They rest awhile, and then shoot up the rapids, and rest awhile behind some rock, where they gather strength to take another leap, and in this way they continue until the fall is passed. To illustrate how a fish-way is constructed, we will take a long box; one end is fastened at the top of the dam, the other

end is extended to the center of the pool below the dam. We will suppose the box to be six feet long, four feet wide, and two feet high on the inside of the box, and on the bottom are pieces of plank, about three feet apart, placed transversely and called riffles. Each riffle is about a foot high, and extends about two-thirds of the way across. If the first riffle is fastened to the right side of the box, and at right angle to the side of the box, the next, three feet above, will be fastened to the left side, and extend thirty inches across it, and so on alternately until the top is reached. The water entering the top of this box is diverted from right to left in its course, forming eddies or resting places, for the fish in their upward course. They can be constructed of stone or timber. Stone would be better, as it would leave the sides rougher, and would not be so likely to be washed away. The average cost of all fish-ladders in the State of Maine, including permanent stone structures, over manufacturing dams, does not reach two hundred dollars.

As a general thing, men owning water-power in this State, are intelligent and progressive, and when satisfied of the importance of the law requiring the construction of fishways, will, as soon as convinced that they will not interfere with their business, and will add much to the general good and prosperity of the State, construct substantial fish-ways over their dams. As a proof of the necessity of fish-ways, I will refer to the fact, that after the construction of the Lawrence dam, fish in the Smoky Hill river and other streams above became very scarce, but after the dam was washed out in May last, fish became abundant in the Kaw and its tributaries above Lawrence.

The cut printed herewith represents a rectangular fish-way. Any mechanic can readily construct one by referring to the same. Upon the proper construction of this aid, more than anything else, depends the success of fish culture in Kansas.

### PLANTS FOR WINTER BLOOMING.

Now as the season of out-door floriculture is at an end for the next five or six months to come, the query will be with many amateurs, "What are the best winter blooming plants for house decoration during the winter and spring months?" From among a few of our favorite winter bloomers I consider the Chinese Primrose, (*primula sinensis*) as one of the best. As a profuse flowerer it cannot be excelled. It is one continuous mass of bloom from November till May, and is very easily managed, if we except the hot months of summer; and even then there need be no failure, provided a little attention is given to keep them in a cool, shady place indoors, where they will have plenty of light and air. Give water moderately, and pinch out all flower buds that may appear from time to time throughout the summer. Replant when the plants fill their pots with roots, using soil of a light texture, sifted through a light sieve. They will bloom freely in a temperature ranging from 50° to 60° at night, with 10° or 15° more of sun-heat during daytime. All the varieties, white and pink, double and single, require the same treatment.

The carnation pink is another that is fast gaining favor as a winter bloomer. No one

fails to admire them, and yet so few cultivate them. They succeed best in a low temperature, but will stand 60° fire heat when forming for flowers. They are of very easy culture. The best winter varieties are President Dew (pure white), La Purite (carmine), Edwardsii (white shaded with rose), and Var La Purite (bluish striped with carmine). It ought to be remembered, that they should be kept in pots during the summer, when they are wanted for winter flowering.

No collection of winter blooming plants is complete without a specimen or two of the Bouvardia. Amongst amateurs the Bouvardia is not as well known as either of the above named plants, but every lover of flowers ought to grow them. They are beautiful. Have them one winter, and I would vouch for it that you would not be without them again. They require a high temperature, at least not less than 60° to produce flowers in abundance. The colors of the Bouvardia range through white, pink, carmine, scarlet and crimson.

The fragrant *Hellebore* is a favorite with all, and justly deserves to be so. Who that loves Flora's gems would be without it? And still a great many fail to make it produce flowers when most desired. When wanted for flowering, keep them in pots through the summer, repotting them as they may require; pinch out the flower buds as soon as they show. If they have been kept out of doors, see that they are housed before the nights get cool, as they are easily chilled. Give them a warm corner in the house, at least 60° heat, and where they will have plenty of sun and light. Sprinkle the leaves occasionally; it will help to counteract the dry atmosphere of the room, and also keep the leaves from getting black or rusty looking. The *Hellebore* delights in a warm atmosphere. If attention is given to the above hints, you will not be without flowers the entire winter.

The *Eupatorium* and *Stevias* are a class of plants not as familiar to the amateur florist as some of the above named. There is nothing to be admired in them as plants, but then they are valuable where a continuous supply is wanted for winter use. Their feathery sprays of white flowers are borne in great abundance, and by having the different varieties one can have a succession of bloom from November till March. They are of a very easy culture, and will flower in a low temperature.

Amongst *Fuchsias*, we have but few that can claim the title of winter bloomers. *F. Speciosa* is the old reliable stand by, as a winter flowering *Fuchsia*, and summer flowering too, for that matter. It cannot be excelled. *F. Bianca*, *F. Surculata*, *F. Fulgens*, and *F. Carl Hall*, of more recent introduction, are also flowering varieties.

As to the Queen of Flowers, no one having house plants for winter decoration, would think of being without them. They are indispensable. You want a Tea Rose, even if you have nothing else in the way of flowers. *Bon. Silene* (carmine), *Isabella Sprunt* (straw color), *Lamarque* (white), *James Sprunt* (crimson), and *Marshall Nell* (yellow), are some of the best for winter flowering. Every winter, as a rule, kindness kills more roses than the frost does. I have seen people try to grow them in their sitting-rooms, the temperature of which

would average 75°, and then they would grumble and say they had no luck whatever in growing roses in winter time. It ought to be remembered that the rose cannot stand so much fire heat and keep healthy. Provided you have strong plants in good growing condition, they will stand a temperature of 60° or even 75° and bloom freely. Roses not intended to flower in winter should be kept in a temperature that would average 45°, and dormant plants from anywhere above freezing to 40°.

Amongst other plants that are ornamental and useful for winter flowering might be mentioned the *Abutilon Asclepias Curisavaca*, *Calceolipica*, *Cuphea*, *Erica* or *Heath*, *Lapiezia Rosea*, *Malva visca*, *Mahonia oerata*, *Poinsetta Pulcherrima*, and *Violets*, not forgetting *Hyacinths*, *Crocus*, *Anemones* and *Narcissus*, with a fair share of *Mignonette* and sweet *Alyssum*.—*D. Baldwin in Fruit Recorder*.

### MAKING HEDGE FENCE.

In our travels over at least four of our best prairie states of the West, we have seen but little good hedge fence. What farmers usually call hedge fences, are merely rows of hedge plants, standing and growing like young forests, shading the fields and sapping the ground for a rod or two around. The larger it grows the more worthless it is for a fence; merely a barrier against cattle, but will not turn small stock. You can make a good board fence out of good material, you can make a good hedge fence only out of suitable material. Now you may stop here and ask what good hedge material is; and we will answer, stalks, or a hedge row grown in a natural way:

1st. All worthless plants should be thrown away.

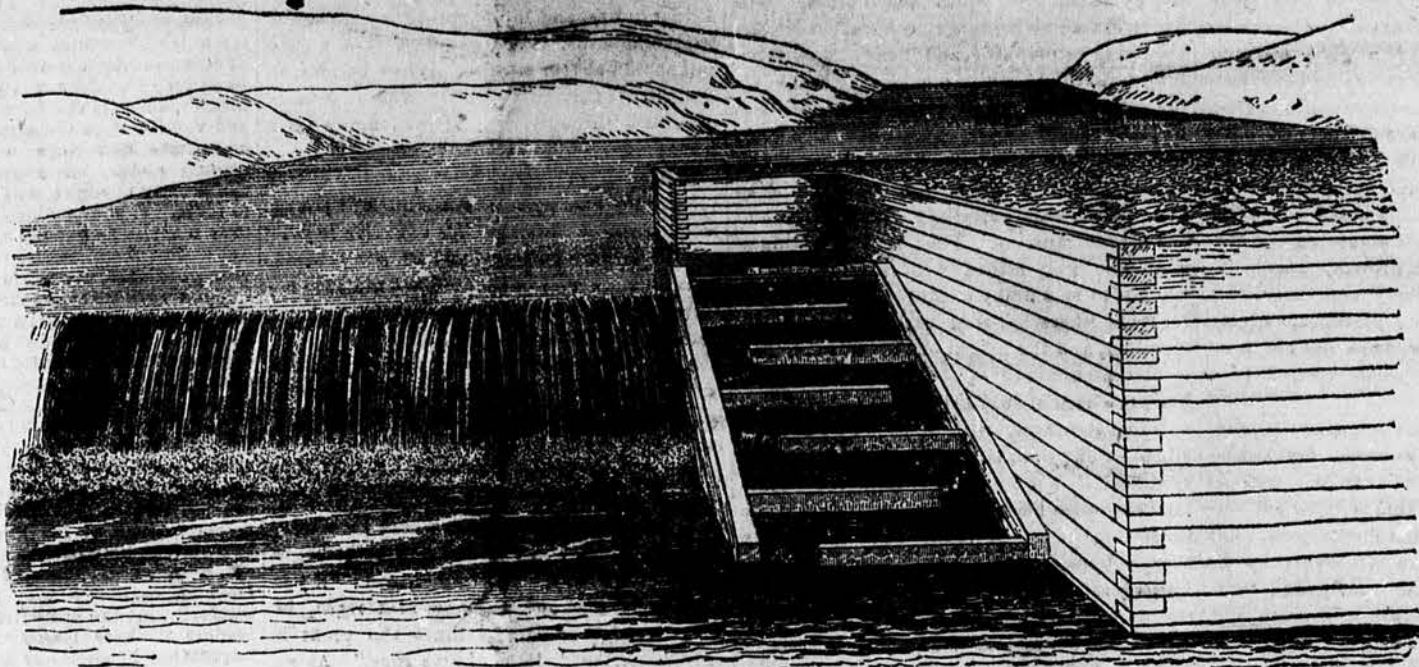
2nd. The Osage Orange plant is a peculiar plant, taking more than two years to mature or become fit for setting for fence.

Set your plants regularly, putting in nothing but good plants, and give them proper care and cultivation.

When grown large enough; make or lay them into a fence. Make your pig fence first, if you don't you will never have it, which is called the foundation of your fence, making this by bringing down to a proper angle all the large ends of the plants close to the bottom and place the small brush on top, then you can properly trim the fence and make it ornamental as well as good, and do it with very little labor or expense, and your fence will turn the least pig as well as the largest steer. The base of your fence should occupy less than one foot of ground, and the roots of the plants be exposed to sun and air. Should you fail to get the sun and air to the roots, you will soon observe the plants thinning out.

In conclusion permit me to say, we are now living in a progressive age, and that we believe in improvements on hedge fences as well as in other things, and by making good and ornamental fences around our farms, we will be able to get from \$5 to \$10 per acre more for them should we wish to sell.

Many say, "I have my hedge fences made"; those are the men we are talking to. Take away those unsightly rows you have on your place, and make a fence properly, growing it in a natural and careful manner, with an eye to beauty as well as use.



COMMON FISHWAY.



## Horticulture.

## PRUNING THE GRAPEVINE.

You can do almost anything with a grapevine if you understand it and apply the means; it is so susceptible to change or direction. Give it the proper soil and situation, and you can advance its growth amazingly. And you can direct this growth at will equally amazingly. You can grow wood, fruit, or both; of course with exceptions. But by growing the one you will lessen the other. You cannot grow fruit and wood largely at the same time, not generally. You can, however, grow a good crop of each with the proper knowledge and care, soil, treatment and climate suitable. The aim should always be a balance between fruit and wood, as also an avoidance of excess and lack of growth. The medium course is found to be the true course. Then you get a fair to good growth of fruit of good quality, a good healthy growth of wood, and yearly growth of both wood and fruit, because the vigor is retained and continued; all goes on like a perfect machine kept in good order without strain. In such cases you can bear, and indeed require, to have a good soil—not rich, necessarily, but one favorable to a good sound growth, which has reference to the mechanical, hygrometric, barometric, and other conditions of the soil, rather than to fertility—which in the main should not be great: expansion of the roots a well aerated soil being of more account than high manuring, to connect quality of fruit with growth. Land cannot, therefore, be too deeply and thoroughly drained and disintegrated for the grape, giving chance for its roots without danger from mouldiness or rot, or the evils referred to a wet soil.

Having, then, the proper soil, also the proper situation and climate—warm, dry atmosphere—there will remain only the task of directing the vine; and this is of equal importance with the provision for its roots. Let it go unchecked, and there will generally be little fruit. Cut close (the wood), and with our American sorts, there will be disease and various mischief. The overgrowth of fruit will defeat itself; will hurt (exhaust) the vine, which will show the year following in lack, and perhaps failure of a crop, the growth of the wood being suspended entirely in some parts of the vine, the frost of winter getting the credit. This is done by close pruning; especially summer pruning. It shows how easily the vine may be directed. If the shears have been withheld, they would have been an entirely different state of things—a large wood growth—a small, straggling fruit yield, lack in quality and quantity, and good branches; but the vine would have been healthy and remained vigorous; yet it would have defeated its purpose.—*Fruit Recorder.*

## SEASONABLE HINTS FOR THE FRUIT AND VEGETABLE GARDEN.

No much has been said in this journal on the proper preparation of the soil for orchards, that it need not now be repeated. We should only say, that a light dryish soil is the best to choose for the peach. The pear does best on a strong, loamy soil. Plums much the same as the last. The apple prefers a heavy loam, if on limestone so much the better. The cherry does well in soil adapted to the peach.

If, however, a fruit orchard is dry and properly top dressed annually, there is not much difference in the value of soil for fruit or orchard. With rich, decaying vegetable matter abundantly supplied to the trees, they will do well enough in most kind of soil.

Whatever pruning trees may require, is best done early if one have the time. On this account, however, when there is more leisure towards spring, when our fruits do best in partial shade.

The gooseberry and currant certainly do. The former must have shade; and if on the moist, northern aspect of a wall, so much the better. The raspberry prefers a rather moist soil and partial shade.

Where currants, gooseberries and raspberries are not to be disturbed, old low stalks thrown thickly in about the plants and allowed to remain and rot away, keep the roots cool, and make a condition of things in which these three kinds of fruit luxuriate.

In cultivating raspberries on a large scale they do best in hills, as the cultivator keeps them from crowding each other so much. For garden culture they are better in rows, the suckers to be hoed out occasionally as they grow; enough only being left that will be required for fruiting next year. Where canes are required for new plantations, of course a portion of the crop must be sacrificed to the suckers.

In choosing pears, select those that have been budded close to the ground, as when they are replanted the stock should be buried an inch below the pear scion, which prevents the attacks of the quince borer. If a long stem has to be buried, the usual consequences of deep planting result, and do as much injury as the quince borer. Also in choosing, select, if possible, plants that have been raised from cuttings; for layered root, on which always a long, deep tap looking root, on which dwarf pears do not do well. If we have to use such dwarf pear trees, better shorten some of this long, trunk root before planting. Never plant what appears to be the stem of the tree far beneath the surface, under any circumstances, for disease will be most probably an ultimate consequence.

In making new vegetable gardens, a south-east aspect should be chosen, as far as practicable. Barrenness in the crops is a very great desideratum, and such an aspect favors this point materially. Too great a slope is objectionable, as inducing to a great run of water in heavy rains. The plots for the crops should be laid off in squares or parallelograms, for convenience in digging, and the edges of the walks set with box edging.

Sometimes brocoli does not head before there is danger if frosts, especially if growing vigorously. If taken up with small balls of earth, and set in a damp cellar, they will still perfect themselves.

Asparagus beds, after the tops have been cleared off, are better covered with litter or stable manure. The plants shoot easier for it next season.

When the ground becomes frozen, or no

other work offers, preparation can always be made for advancing prospective work when it arrives. Bean-poles may be made; and if the ends are charred, and then dipped in coal tar, the commonest material will be rendered nearly equal to the best cedar.—*Gardener's Monthly.*

## Farm Stock.

## THE PERFECT SADDLE HORSE.

It is easy to describe the perfect highbred saddle horse so that he will be recognized at sight by the uninitiated, and the initiated need no such description. His characteristics may be thus sketched: He should have, first of all, large, sound, open-heeled feet, with the frog well defined, the pasterns neither so long as to be weak, nor so steep as to give an unyielding action,—rather of medium length and sloping backward a little more than the front line of the hoof; the legs, between the pastern joints and the knees and the hocks, cannot be too short, and the back tendons should be so large and full as to give them the appearance of width and flatness. The knees cannot be too large and full, nor can the hocks be too large and bony. The forearm, from the knee to the point of the shoulder and the hind leg from the hock to the stifle joint, should be very long, and muscular, and quite free from fat or flabbiness. The shoulder must be very sloping,—the more so the better,—and overlaid with tense and prominent muscles. The hips and thighs should be well loaded with muscle, and if there is to be a fleshy condition at any point let it be there. Owing to the slope of the shoulder, and the height of the withers, and to the prominence of the muscles over the hips, the back should have the appearance of extreme shortness, with a slight—but only a slight—downward curve: "herdly room to carry a saddle" is the form in which the horseman expresses his highest praise. This is the preferable form of back, but very many thoroughbreds are deficient in this respect.

Largely as a matter of beauty the spine should run back nearly level with the hips, and the tail should be carried high, (the Kentucky blood horse is often very defective here); the neck should be long and lean, well arched, but not beefy at the crest, and furnished with a large, loose hanging windpipe below, well defined even when the horse is at rest. The ears must be quick, small at their setting-on and thin,—there is no objection to their having a good length; the head may be, but is not necessarily, small, but it should be well shaped, and it must be as bony and as free as possible from flesh; it should be so wide and clean between the jaws as to give ample space for the windpipe; the nostrils must be capable of great distension, to allow free breathing during exertion; the skin should be soft, the coat fine and silky, and the hair of the mane and tail, although it may be somewhat wavy, should be free from anything like curliness, and rather scanty than superabundant. After severe exertion, full veins should show over the whole body. The distension of these veins, which are generally invisible in the cold blooded horse, gives the thoroughbred one of his greatest advantages by affording relief to the pulsation during the strong action of the heart.

The horse above described is quite sure to have the deep chest and heart-place which are so important to strenuous exertion; but many of the best thoroughbreds are deficient in the sound barrel-hooped form of the ribs which is necessary to the roomiest accommodation of the lungs and the abdominal viscera. A sound horse having these qualities and whose sides, back of the girth, project beyond the line of the shoulders and hips, may be relied upon for the most arduous work.—*Col. Waring, in Scribner for November.*

## WINTERING STOCK.

In a large portion of the stock-growing states, the feeding season is from four to six months of the year. If, during this long period, we feed our stock so as to continue its growth, we shall realize a profit on our grain and fodder; whereas, if we merely "keep them through," as is the custom with too many farmers, we shall have no return for our outlay. If, for example, we have a lot of steers or pigs wintered in such a way that they have made no gain whatever between the autumn and spring, it is obvious that we have added nothing whatever to their value, and that what we have fed them has been a clear loss. But the intelligent reader will not need to be told that many farmers winter their stock at a much more ruinous loss than this—that with no inconsiderable number of American farmers the practice is to allow stock to go into winter quarters—or, perhaps we should say, begin the winter without quarters—in good condition, and to come out in the spring so thin and emaciated that it requires nearly all the grazing season to regain the condition it had the previous fall. This, together with the inferior blood, accounts for the slow growth made by so large a portion of our cattle, requiring four or five years to make the weights—say 1,200—which good stock, on good keep, should make in two years. Twenty or thirty years ago, the management of pigs was no better. But now, in all our great stock-growing states, the large majority of the farmers have swine of the improved breeds and have learned that to make the business profitable the pig must be kept growing from its birth to the time it is slaughtered, which is now frequently as early as the age of ten months, and seldom later than a year and a

half, instead of two to three years, as was the old practice. As swine are reared for the one purpose of producing meat, the importance of a system that will give us the most profitable returns in this product is more directly felt than in the case of cattle and sheep, that yield, in addition, milk and wool. But it is obvious that attention to the profits we make in the meat product is as important in the one case as in the other. If we raise a steer, we have, as with the pig but the one question—how much profit will the carcass yield?

With sheep, too, in all the varieties, especially on high-priced lands, the mutton is quite as important as the wool product; and it must not be forgotten that the best system for the profitable growth of wool is also the best for the production of mutton—we speak now of the feeding and management, and not of breeds.

But the great loss in the rearing of cattle results from bad management in the beginning. The calf does not get milk enough, and it is frequently put on poor grass; and by the beginning of winter it is lean, paunchy and out of shape, it is then put on straw, corn fodder or hay, and in the spring, at the age of twelve months, it weighs less than a good calf should at four months. It has, besides, an unthrifty habit established, which usually continues through life. It will never be a good grower.

We wish to press the importance of this view of the case upon the attention of young farmers and breeders. Give attention to your calves. If well-managed and of good blood, no farm stock will make more profitable returns; while, if of a bad sort, and badly kept, nothing can be more unprofitable.

A few years since we met a friend just returned from *The East*, where he had been to wind up his hog trade for the year. "Well," said he, "I am now done with the hog shipping business; for two or three years I made money—a good deal of money; now it is all gone, and I must go back to where I started."

"Where is that?" we asked. "I must begin again with a calf," said my friend; "if you get a good one and manage him right, he will never fail you. Sometimes the profit is only moderate, but it is always sure." As we have said elsewhere, many yearling steers have been sold this season at fifty dollars per head, and this has all resulted from the two important requisites of good blood and generous keep for the first twelve months of their lives.

Let us make the application. How do our calves look? Are they in good, thrifty, stout condition to begin the winter? If not, we should lose no time and spare no expense to make them so. Oats and corn ground together are, perhaps, the best feed. Shelled is very good, and young calves are very fond of it; to this may be added bran and shorts. If the calf is out of condition, or lousy, a little oil cake with bran is excellent. To kill the lice nothing is better than plenty of lard or other grease, with a little petroleum—if the weather is cold we must use more petroleum, say one-half. The great point we wish to press in these observations is, that all stock should be kept growing in winter as well as in summer; that if it is not kept growing, the food it consumes brings no return—is a dead loss—while if we add, say one-third or one-fourth to the expense, we have a profit on the whole. This is more especially true, and more strikingly illustrated in the keeping of young stock the first winter, than in any subsequent period.—*National Live-Stock Journal.*

## Poultry.

## SHELTER FOR POULTRY IN WINTER.

During the present year I have seen several illustrations of poultry houses, some of them quite ornamental in appearance, and all of them substantial and useful in their way. Indeed, the perfection to which our leading fanciers have brought the modern chicken coops is such, that the ideal home of the poor man is not quite so grand as that of a well bred cockerel and family of the "upper ten" poultry.

However admirable these buildings are, your readers will, I trust, pardon me if I claim for the plan that I am about to submit for their careful consideration a single point of excellence unattainable in any of the poultry houses which have come under my observation.

This coop occupies the southslope of a hill. It consists of an underground room and entrance, having a south front; dimensions—entrance, four feet in length by three and one-half feet in width; depth, six and one-half feet; main room, twenty feet in length by twelve feet in width and eight feet in depth. It is built by digging a cellar and putting up in it a frame just as one would for a coop above ground. The walls of both entrance and main room are covered by rough boards; also ceilings, with the exception of space in main room occupied by box frame for window. These boards are well matched, to prevent crevices for the lodgment of lice. The roof is now completed by nailing boards on the rafters, a few inches apart, and covering first with a load of straw, and then, to the depth of two feet, with earth, previously thrown out from the cellar. In the building are two doors, six feet in length by two feet four inches in width—entrance door and door to main room. A shed, twelve feet in length by eight feet in width, opens to the south in front of the coop—a plain board blind and light open railing to protect the window in the roof complete the building. The lower part of each door is sawed off six inches above the ground floor, and put on again, with hinges, in such a manner that they may be turned back and fastened. By this arrangement poultry can have the liberty of the shed at any time, without leaving the doors open. The nests are made by hollowing out a niche in the west wall, two and one-half feet from the floor, and sitting in it a board having short pieces nailed on at intervals to partition the nests. This gives each nest the benefit of a ground floor.

Each nest is provided with a door made by tacking coarse wire cloth on frames made of common lath. These doors are fastened with hinges to the lower edge of the nests and closed at the top by a small wire hook and staple. A board shelf is placed a few inches below the nests to make them easy of access. As a preventive against lice, the walls and ceilings, together with nests, perches and whatever else there may be in the coop that will admit of it, should be thoroughly painted with whitewash, in which is mixed a pound of sulphur and a pint of coal oil.

Kill off the rats and mice as you go along, and they will not come back to eat up your cheese. Poultry covered with vermin are the sure prey of disease. This coop is well lighted, and may be well ventilated at any time by turning down the window in the roof a little, also small window just over the door to main room and fastening back lower part of entrance door. This coop is practical. It originated from what is termed in western phrase a "cave" or "dug out." I am aware that some persons are prejudiced against underground shelter and it is true that neither vegetable nor animal life will thrive in a close dark cellar, but in a room well lighted and thoroughly ventilated, the medicinal properties which are in the earth itself cannot but be beneficial. In rooms with no timber about them, except a few poles at the top to sustain the weight of the roof, a door made of rough boards, or an old blanket, I have known poultry try to lay all winter, much better than when kept in out door coops, and to be perfectly healthy. The door, a few inches short at the bottom, answers the purpose of both window and ventilator in these primitive coops. Rats sometimes find their way into these underground rooms, but a good cat, shut in with the poultry at night, will speedily put an end to them. If young chickens are in the coop, they must be looked after; a very good cat will not molest them, but there are more cats than very good ones, the world over.

The single point of excellence claimed for this over other coops, is a uniform temperature above the freezing point in winter without the expense of fuel. In outdoor coops, poultry frequently suffer from freezing. A case in point is that of a very fine Light Brahma cock which had nearly all his comb frozen off last winter. Previous to freezing he had covered himself with honors, by carrying off premiums whenever exhibited. Twice his owner, a well-known fancier, refused \$35 for him, and this last summer a trio of his stock, a cockerel and two pullets, brought the neat sum of \$50. The deterioration in value of this fine bird from freezing, each one may readily estimate for himself. At the same time I would ask your readers if these losses are not of sufficient importance to elicit our careful consideration and endeavor to prevent them. One thing is certain, when once our pets have lost their combs at poultry exhibitions they "can never figure any more." Besides the mortification of these once favored fowls on finding out from their neighbors how matters have gone with them, or rather how the frost has gone with their combs, to say nothing of the loss of premium money, is a matter for sincere regret, and unfeigned commiseration, particularly to their owners who greatly prize themselves on the beauty of their fine stock.

These considerations, along with the poultry vote which I am sure of getting, will I believe, tip the scales for underground shelter in winter. Another item of importance is found in the egg department. In the early part of the season, when eggs are desired for the spring trade or for raising chicks on one's own account, it is of the utmost importance that the temperature of the coop be such that the eggs are in no danger of being chilled. I think it safe to say that although frosted eggs may hatch they are in no way benefited by being frozen. In such a coop as I have described the eggs need not be taken from the nests until desired for use. A large percentage of valuable eggs annually lost might be saved by following out this plan. The warming of the eggs every day by the hen, as she sits on them to lay, puts in motion the vital forces; and these activities renew, strengthen, and preserve it. An egg treated in this manner will be found at the end of two weeks as fresh as an egg just laid, and is just as sure of hatching. The success of hens bringing off large broods from stolen nests is mainly due to this cause. Here also hens may sit at any season of the year with satisfactory results. Young chickens may revel in the sunshine under the window in the roof, and grow fat, scratching out partially covered wheat screenings from the ground floor. Green food is provided by planting cabbage stumps and turnips in any available part of the coop. A good sized turnip hung up in the window just out of reach, will occasionally afford a good meal for a dozen and one chickens (the number this coop is intended to accommodate and their brood in its season) and delight the eye in winter. A dust bath, an iron drinking pan, having in it a few rusty nails, are also provided. In short, just here you will find everything a hen could wish for except a bug, and a looking glass; these deficiencies are readily obviated by feeding meat occasionally, and always keeping plenty of pure water in the drinking pan. Do you see the camel that carries the sugar loaf?—*F. H. D. in Poultry Bulletin.*

## Apiary.

## THE NATIONAL BEE-KEEPERS' ASSOCIATION.

Points Taken from Report of Discussion.

**Preventing Increase.**—It is expected that all apiarists will clip all queens' wings as soon as they get to laying, thereby saving all loss of swarms by flight to the woods, and all uniting of two or more swarms. If we have decided that the prevention of increase will be more profitable than increase (according to the time our honey harvest commences) when a swarm issues, we catch the queen as she is found running round in front of the hive trying to follow the swarm, and place her in a wire-cloth cage, spread the combs a little in the centre of the hive and by means of a wire attached to the cage, suspend it in the centre of the hive, and the bees will soon return. You will want to be a little spry about this operation or before you get through, queen and return before you get through, and in that case you will have a job to close the hive without killing lots of bees. In five days open the hive and cut out all queen cells and the bees will go to work in the boxes with a will that will surprise you. In cutting out the queen cells each time, you will want to shake the bees off the combs or you may miss some of them. Still later when the caging of the queen would come right in the honey harvest, thereby causing too great a loss of honey, as with us bees will not work in without a laying box-queen.

Swarming can generally be controlled by extracting the honey from the brood combs and cutting off all cells the evening after a swarm has issued and been returned. If they are satisfied with swarming out and having their honey extracted (which they generally are) they will go to work in the boxes with a will. However, if none are seen at work in the boxes, but are lounging idly there, they will swarm again in a few days, and you will have to repeat the operation. In the midst of the honey harvest another and a very good plan is to watch your opportunity and when two or three swarms come out so as to cluster together, hang one of the caged queens with them till they get settled, and then have them the same as any swarm, putting on the boxes at once. Let the queens you do not use go back in their own hives.

The old stocks where the queens have been put back will do better than they would if they had retained the bees and kept up the swarming fever, while the large swarm will fill its hive and boxes in a very short time. We had one such swarm to complete 65 lbs of splendid box honey in 15 days this season. Of course the stock that furnished queen for the large swarm will do but little more than get ready for winter.

**Marketing.**—If comb honey, it should look neat, be so built that it would all show, and in one or two pound boxes or frames, so that all could buy. If made in small frames about six inches square, these held in the larger frames, which are like the common brood frames, except that they are two inches deep—and beyond question, this puts our honey in the most inviting form and secures the most, if we seek comb honey—then this should be nailed on to the large frames, separating the spaces to receive comb, so that contiguous combs will not be fastened together and thus soil the honey and box.

The box made to contain these frames, while awaiting purchase in the grocery, should be like a new idea hive, with a perfectly tight bottom, so that about the combs leak, the box will not allow any dripping. This box should be made neatly, nicely painted, and with a hinged cover with straps like a trunk, so that it may be opened easily in removing honey. At one end there should be glass so all who come in will see the beautiful combs for themselves.

On the top of the lid should be a label, neatly printed in large letters giving grade and kind of honey, and in very large letters, the name of the apiary, so that the prestige obtained by all this pains shall come to the rightful owner.

The labels must be made adjustable, so that they may be changed with the grade and kind of honey.

Extracted honey should be extracted. Let us not confess an inferiority we do not feel by inserting a piece of comb, but trust our extracted honey on its own merits, which are truly ample to commend it to public favor. It should be put in small glass receptacles, so that each cup may be sold at the most for 25 cents. It should be delivered in small quantities so that it will not granulate on the grocer's hands; or else he should be told all about granulation, and the way to again liquify the honey. A large, neat label, framed and under glass should call attention to the quality and kind of honey; to its extraction and to the apiary from whence it came. The cups I think had better be the jelly cups. The size is favorable, and they help sell the honey, as they are always in demand and the buyer thinks he gets these thrown in.

**Summary of facts presented by the Association.**—1. It is now only a few years since the invention of movable comb hives has opened up a new era in bee-keeping, and placed it on the basis of a successful business pursuit. Such hives, adapted to climate, furnish every facility for intelligent management of bees by regulating swarming, guarding against moths, and manipulating both bees and honey.

2. The inventors of the extractor or honey slinger, a machine which empties all the honey from the combs by centrifugal force, without injury, so that the combs may be returned to the bees, marks another great step in apiculture. Thus virgin honey, free from foreign admixture is obtained, having the flavor of the flower from which it is drawn.

3. The further invention of artificial comb foundation, made of pure wax, first successfully used to a large extent this season, completes the requisites for placing bee-keeping on the basis of a great industry in our country. Bees receive this artificial comb foundation with readiness as receptacles both for honey and brood.

4. Simultaneous with the first and all of these improvements, the introduction of Italian bees and improved modes of rearing queens, of transporting and introducing them to colonies, has greatly improved the value of the honey gatherers, both because of the superiority of the Italian bee and the introduction of new blood. New blood prevents the danger of inbreeding.

5. The great drawback to apiculture is the sting of the bee. Danger from this source is now largely overcome by the simple appliances used for the protection of the person and for subduing the bees. The most vicious colony may be subdued in a very few minutes.

6. To consumers of honey, a few facts are necessary in this article to preserve them from imposition. Nice white comb speaks for itself and is generally admired, but the price many lovers of honey cannot afford. It makes a beautiful dish for the table but is no better than extracted honey. All comb is wax, and wax in the stomach is perfectly indigestible. Extracted honey is the pure liquid honey as it is taken from the combs by the honey slinger free from any foreign admixture. Consumers help to impose upon themselves by the false idea that pure honey will not granulate. They desire ungranulated honey and dealers will attempt to supply the demand. Almost all pure honey will granulate when exposed for some time to light and cold. The granulated state is a fine evidence of pure honey. Much of the jar honey heretofore sold in the markets, and recommended not to granulate, is a very inferior article, composed largely of glucose or some inferior substance. Granulated honey can be reduced to its liquid state in a few moments by placing the jar in warm water. When thus liquified it so remains for some time before again crystallizing. Consumers may be sure of a good, wholesome article by purchasing granulated honey and reducing it.

7. To producers: By full use of improvements in bee-keeping, the honey crop of America may be almost indefinitely increased and become a great source of national revenue. None need fear over-production. The home consumption is largely increased whenever people learn to know the superiority of such honey. Dealers in New York have already commenced a large export trade, and they tell us that their only difficulty is in procuring honey in proper shape and quantity to supply the growing demand.



November 14, 1877.

## Patrons of Husbandry.

**STATE GRANGE DIRECTORY.**

Master, Wm. Sims, Topeka, Shawnee Co.  
Overseer, J. F. Williams, Lawrence, Douglas Co.  
Lecturer, J. T. Stevens, Lawrence, Douglas Co.  
Steward, W. D. Rippey, Lawrence, Douglas Co.  
Asst. Steward, S. W. Fisher, Beloit, Mitchell Co.  
Treasurer, W. P. Poppen, Topeka, Shawnee Co.  
Secretary, P. B. Maxson, Emporia, Lyon Co.  
Chaplain, W. H. Jones, Holton, Jackson Co.  
Gate Keeper, Geo. Amey, Bourbon Co.  
Ceres, Mrs. H. A. Sims, Topeka, Shawnee Co.  
Pomona, Mrs. H. N. Barnes, Manhattan, Riley Co.  
Flora, Mrs. B. A. Otis, Topeka, Shawnee Co.  
Lady Asa's, Steadman A. Rippey, Lawrence, Douglas Co.

**EXECUTIVE COMMITTEE.**

M. E. HUDSON, Mapleton, Bourbon Co., Chm'n.  
W. H. JONES, Holton, Jackson County.  
LEVI DUNBAULD, Hartford, Lyon County.

**STATE CO-OPERATIVE ASSOCIATION.**

President, M. E. HUDSON, Mapleton, Bourbon Co.  
Secretary, A. T. STEWART, Kansas City, Mo.  
Treasurer, Wm. Sims, Topeka, Shawnee Co.

## HINTS TO GRANGES.

A Grange is an organized co-operative society and is, or ought to be, at all times, in complete running order. Its object is the benefit of its members, intellectually, physically, morally and pecuniarily. How best to accomplish the desired object and reap the full benefit of co-operation should be the constant study of each and every member.

We take it for granted that no Patron of Husbandry is so stupid as to believe that he or she can realize any very decided benefit simply by joining the Grange and paying the monthly dues. Joining the Grange is simply placing one's self in a position where, by earnest and well directed effort, greater good can be accomplished than by the most persistent individual endeavors. The monthly dues can only be regarded as a contribution for incidental expenses and can form no part of the cash capital required for the accomplishment of the real objects of the society.

In this article we wish to point out a single way in which every Grange, no matter where located, can, by co-operation, decidedly benefit every one of its members. We have told the story many times, in various ways, but it will bear repeating and must be repeated from time to time, till the full measure of good, sought for by the Order, is attained.

Every Grange should, at once, assess its members and raise a sufficient sum to purchase a thorough-bred bull, ram and boar. These three males should be procured without delay. They will be property of the Grange and be used for the benefit of its members only. The expense, per capita, will be small. Two hundred and fifty dollars will procure superior animals and five hundred will procure first-class. If the Grange has a large membership, a stallion may be added to the list, and the great work of stock of improvements will begin.

There is more money and less labor in stock than in anything available to the farmer. The scrubs which are everywhere seen, are of little value, but every year, with proper crossing, their value can be increased in almost geometrical proportion. The climate, range, water and markets of the South are peculiarly adapted to this industry and it should immediately take front rank among our resources and will do so if the suggestions we have made are adopted by any considerable number of our Granges.

Let the improvement begin now. Do not wait till next year or any period more remote. Every day's delay is money lost. The plan is entirely feasible and requires no great skill or experience to accomplish the inaugurative movement. Common-sense and a generous supply of money will start the interested parties on the road to real prosperity.—Son of the Soil.

## MEETING OF THE NATIONAL GRANGE.

The following letter from Bro. D. W. Aikin, from the Executive Committee of the National Grange will be of interest to all who desire to attend a meeting of the National Grange, as no doubt many of our readers will make it convenient to do.

LOUISVILLE, KY., July 23, 1877.

J. V. WEBSTER, Esq.

Dear Sir and Brother:—I am instructed by the Executive Council of the National Grange to advise you that the next session of the National Grange will be held in the Grand Hotel in Cincinnati, Ohio, beginning at 10 a. m., Wednesday, November 21st. The accommodations at the hotel, including free and hall to meet in, are \$3.50 per day for each member of the National Grange, and each visiting brother or sister. Fraternally,

D. WYATT AIKIN.

The National Grange is a respectable body and should be provided with respectable accommodations, at its annual sessions; but we do not fully understand the propriety of entertaining the members at the most expensive hotels in the cities where the meetings are held. The Palmer House was selected at Chicago; the Galt House at Louisville; the Southern at St. Louis, and now the Grand at Cincinnati; all being first-class and high-priced hotels. Two of them, at least, the highest priced in their respective cities, in consequence of reduced rates were obtained, in consideration of the large number of guests and the length of time they were to remain, but proportionally low rates for other less pretentious and expensive, but respectable and comfortable hotels, could have been secured, and the saving to the National Grange Treasury would have amounted to several hundred dollars each session. And more than this, by such a course an example of economy would have been presented to one of the cardinal principles of the order and highly commendable in all respects. Our Grange representatives can maintain the proper dignity and respectability of a reasonable economy. If this were done, there would be less complaint against the expense incurred on account of those State Granges whose annual dues to the National Grange fall far short of the amount necessary to defray the expenses of their delegates.—Indiana Farmer.

## RESOLUTIONS OF THE CALIFORNIA GRANGE.

The resolutions of the California state Grange would fill two columns. An abstract of the most important ones is appended.

Resolved, That while we feel just pride in the measure of success already attained by various business associations of the Grange in this jurisdiction, we cannot be blind to the fact that there are defects in their system of organization and management which should be remedied in the most practical way possible at the earliest date practicable.

Resolved, That we heartily approve of the efforts of the National Grange past to learn

the safest and most successful form of business co-operation between Patrons before recommending any system, and hold that every Patron should seek to be in as much accord as possible with the well-known recommendations of our national head and should carefully seek to understand them.

Resolved, That we cordially approve the recommendations of the Rochdale system of co-operation, as applied to our wants by the National Grange.

Resolved, That we most earnestly recommend to our farmers that they will dispense with Chinese labor as much as they can without serious injury to their business affairs, and that as far and as soon as they can they will substitute therefor such other efficient and reliable laborers as they can procure.

Resolved, That we will adhere to the fundamental principles of our order we hold that a closer organization of the industrial classes is needed, that their power may be more recognized in the civil affairs of our country and of each state. We, therefore, urge, upon our agricultural and other industrial classes the greatest unity of action possible, without violence and by all lawful means, especially by the power of the uncorrupted ballot to remedy existing or anticipated evils, and to secure to the fullest extent their civil and personal rights.

Resolved, That we deprecate and deplore all strikes and acts of violence, such as have of late resulted from a conflict between capital and labor. We emphatically deny that the Grange organization has, as its enemies have asserted, been in any way responsible for such consequences by its principles or acts; but we hold that these conflicts have resulted from such evils as the Grange has always protested against and labored to remove.

An elaborate scheme of fire and life insurance has been suggested by some of the subordinate Granges of Indiana for the consideration of the Indiana State Grange. This scheme proposes in the first place such an amendment of the by-laws of the State Grange that, whenever a Patron in good standing sustains a "loss by fire, tornado or other providential cause," he may notify the Master of his Grange of the fact; that the Master shall be required to notify the Secretary and Treasurer, and form with them an "adjudicating committee" whose duty it shall be to visit the premises and determine the damage, and report their determination under the seal of their Grange to the Secretary of the State Grange; that the Secretary shall then be required to make an assessment aggregating fifty per cent. of the entire loss, on the subordinate Granges of the State; and failure to pay this assessment shall be visited with the same penalties as a failure to pay the quarterly dues. In the next place, the scheme proposes that, in case a member in good standing dies, the Master of the subordinate Grange to which the deceased belonged shall notify the Secretary of the State Grange, under seal, of the Patron's death; that the Secretary of the State Grange shall then draw on the Treasurer of the State Grange for \$10, and shall "levy a tribute of \$1 on each subordinate Grange" in the State, and transmit the sum thus realized through the Master of the subordinate Grange to the family of the deceased; and that the subordinate Granges shall pay the same penalty for neglecting to pay this "tribute of \$1" as for neglecting to pay their quarterly dues. There are several serious objections to this plan of insurance, but we shall now only stop to mention one of them. This insurance business would necessarily increase the expenses of the State Grange; and as the funds of the State Granges are barely sufficient to meet their expenses now and are gradually growing less, the tendency must be to cut down, not increase, State Grange expenses. If this scheme, had no other defect than this, its adoption would still not be advisable.—Cincinnati Grange Bulletin.

## BRAINS UPPERMOST.

BY JOHN D. KNON.

The wise man walks with God, and feels the inspiration of his company. Thought, wine, commands, triumphs, in the order of Him who rules over all. Motion is power.

Have your wits about you. Let your brain work. Do something. A copyist is slow and uncertain. Better plan then. Genius invents—is never at a loss; with an active brain, expedients and resources are unlimited. One such can chase a thousand, and two of such can put ten thousand to flight of the slow and stupid, and unthinking. "A living dog is better than a dead lion."—Solomon. Be certain you are right. "Fools and obstinate people make lawyers rich."

"Fools make feasts, and wise men eat them." If you have brains you will come to the top of the wave in time. "In a country of blind people, the one-eyed man is King." A wide-awake child can outstrip an old philosopher, here is an instance: A learned philosopher, being very busy in his study, a little girl came to ask him for some fire, "but," said the doctor, "you have nothing to take it in," and he was going to fetch something for that purpose, the little girl stooped down at the fire-place, and taking some cold ashes in one hand she placed therein with the other a live coal, the astonished doctor threw down his books, saying: "With all my learning I should never have found out that expedient."

Think out of the grooves and ruts. Do a new thing. Think! think! think! There is a good and right way. What cannot be done by might may be done by slight. The will finds a way—thought the best way. "Want of good sense is worse than all the degrees of poverty."

Asiatic Proverbs.—Beware of fools and unfortunate people, for some diseases are catching, and the air is full of plagues. No man liveth to himself—his presence is good or evil, his breath is life or death.

He who deals with a blockhead has need of much brains. Men must select with care. "Nothing so much resembles flowers on a dung hill, as the good that is done to an ignorant or worthless man."—Asiatic Proverb.

A good deed to do good must be wisely done. To be deceived by a worthless beggar and, encourage him in idleness, to be over-reached by a sharper, to be taken in by a confidence man, to misplace money because of misplaced sympathy is a sin against God.

The battle is not to the strong. In business, God honors brains; business brains will win. There are silent forces, gentle, strong, irresistible, and yet healthful.

The outspoken Emerson thinks:—"Wealth is an application of mind to nature, and the art of getting rich consists not in industry, much less in saving; but in a better timeliness, in being at the right place. One man has stronger arms, or longer legs; another by the course of streams, and growth of markets, where land will be wanted, makes a clearing to the river, goes to sleep, and wakes up rich. Steam is no stronger now, than it was a hundred years ago; but it is put to better use. A clever fellow was acquainted with the expansive force of steam; he also saw the wealth of wheat and grass rotting in Michigan. Then he cunningly screws on the steam-pipe to the wheat-crop. Puff now, O steam! The steam puffs and expands as before, but this time it is dragging all Michigan at its back to hungry New York and England. The craft of the merchant is in bringing a thing from where it abounds to where it is costly." Wise men take time and the needed things of life by the forelock, and while others sleep, they amass wealth. John Jacob Astor did this, and so did Stephen Girard, and many others. They weighed probabilities in a balance. There is no disease so dangerous as the want of common sense.—Asiatic Proverbs.

With good sense, many good things follow. "There are many men and women who are full from want of brains. They suffer a voluntary decline because they do not possess the brain-power that can offer the blood any inducement to circulate. The blood does not want to be rushing about when there is nothing going on in the man or woman that owns the blood. Why should the heart or lungs be tolling all day and all night when the person who owns those machines has no use for any new stock of tissues or blood? Pluck is a wonderful agent in throwing off disease. A walk of five miles would cure many an occupant of the lounge. Will-power will surpass pill-power in nine cases out of ten. To hold a bottle of smelling salts in the hand on account of a headache is just the thing at times, but to fling a pound of fruit cake out into the alley, and then walk a furlong as a reward for not eating the compound, is nearly always a much better thing."

Brains and will and work must move along together. Wise play is better than idleness and may lead to useful toil. Strong-minded people have no time to play. The world requires even more of them than their great strength will endure. They are in the front of the battle.

To deal with men, their warts must be met. "The intellectual man requires a fine bait; the sots are easily amused, it is like the cement which the peddler sells at the door; he makes broken crockery hold with it, but you can never buy of him a bit of cement which will make it hold when he is gone." To get the high you must be high—to hold the strong you must be wise. Brains must have eyes. Man know thyself. Are you a man? men make themselves felt in the world, they avail themselves of a certain fate in their constitution, which they know how to use.

There are advantages in extensive business, but success requires extensive knowledge and excellent judgment. "Apart from the incentives of trade, the higher developments of intellect in relation to science would never have been made. Mental capacities of the highest order are required for the management of commercial affairs. The making or losing of large fortunes sometimes depends upon the information that comprises a knowledge of markets and supplies all over the globe. Little boats must keep near the shore; larger boats may venture more. Little dogs snarl at big dogs, but the big dogs have too much dignity to snarl. Capital, like brains, must stir like the air to be fresh and healthful. Active minds, but not overstrained will be cheerful and hopeful, with a will to take hold and energy to succeed. The world is on the lookout for such and follow them as their leaders. If great, and wise, and true, they will be firm to the end and men will call them blessed when they have gone to their eternal reward."

Topoka, Kansas, November 7th, 1877.

**THE BALTIMORE RACES.**

Never since the great four-mile race at New Orleans, twenty-four years ago, when the horsemen of Kentucky, Mississippi, Louisiana, and Alabama picked out their favorite horses for the contest, has there been so great an interest felt in a race-meeting in this country as there was in the Baltimore races. These races were a great disappointment to the large delegation which had gone to Baltimore from the Southwest to see Ten Broeck beat the Eastern horses in the two-and-a-half-mile brush on Wednesday and the four-mile heat race of yesterday. Many, like Baillie Peyton, had not seen an old-fashioned contest for more than twenty years, and they came feeling sanguine that Kentucky was invincible on the turf. Great was their sorrow, therefore, on Wednesday, when Mr. Harper's Ten Broeck of Kentucky was easily beaten by Mr. Lorrillard's Parole of New York in the two-and-one-half-mile race, in 10½ seconds lower time than the record. And yesterday, in the four-mile race, the best time made by Ten Broeck was more than twenty seconds slower than that made by Lexington in the great State race nearly a quarter of a century ago. This true he won the race, but Tom Ochiltree and Parole were out of the contest, and the great interest had fallen to zero. There is nothing so uncertain as horse-racing, and Kentucky may have better luck next time.—New York Sun.

Senator McCreery has introduced a new bill in the United States Senate for the repeal of the bankrupt law. This is a wise move on the part of the distinguished gentleman, and if he presses it to a successful result, he will be entitled to the gratitude of people all over the nation. This law, intended to afford relief to those overtaken by disaster in business, has been employed chiefly as a shield for rascality, and an instrument to rob and oppress the honest. It has paid a heavy premium upon dishonesty, and should no longer be permitted to disgrace our statute books.—Hopkinsville New Era.

## STOVER WIND ENGINE COMPANY, FREEPORT, - ILL.

Manufacturers of the Celebrated Stover Automatic Windmill that carried off the highest honors at the American Centennial Exposition at Philadelphia in 1876, proven by actual tests to run in a lighter breeze than any other mill on exhibition; has a patent self-bracing tower, is a perfect self-regulator, will stop itself in gales and start again when the storm subsides. We also manufacture the Stover Twenty Dollar Churning Feed Grinder, operated by ten and twelve foot pumping Mills; is a novel and economical grinder for farmer's use, will grind from ten to twenty bushels per day and pump at the same time. All who have used them speak of them in the highest praise. Therefore buy a Windmill and Feed Grinder. Save money and make home happy. Agents wanted in unassigned territory. Send for circular.

## "HIGHLAND STOCK FARM." Salina, Kansas.

**THO'S. H. CAVANAUGH,**  
BREEDER OF  
**HEREFORD CATTLE,**  
**COTSWOLD SHEEP,**  
**BERKSHIRE AND DORSETSHIRE PIGS.**

Premium Cattle, Sheep and Pigs for sale. Correspondence solicited.

## SCOTT'S NON-POISONOUS Sheep Scab and Vermin Destroyer.

It destroys Ticks and Vermin, cures Scab, water proofs the fleece, keeps the wool clean, adds to the natural luster, improves and greatly increases the growth of wool, and costs a little over 2 cents per sheep. The compound is warranted to contain no acids or mineral poisons, as arsenic, mercury, &c. Sold by SCOTT & SKENE, Sole Proprietors, Westmoreland, Kansas. Liberal discount to Agents.

## PEAR TREES FOR SALE!

I have on hand a large stock of standard pear trees two and three years old, Kansas grown, at very low prices. Address E. H. HARROP, or M. S. GREEN, Topeka, Kansas.

## PATRONS' MUTUAL AID SOCIETY OF PENNSYLVANIA.

Will issue a \$4,000 Policy for \$2.50 each admission fee. There are two classes of 4,000 members each. A class from 18 to 40 years, a class from 40 to 60 years, no yearly assessments. The only additional expense will be the payment of one dollar when a member dies out of his or her class. For blank applications, by-laws and constitution, address

Patrons' Mutual Aid Society of Pa.  
STOUCHBURG, BERKS CO., Pa.



## PURE BRED BERKSHIRES.

I have now a very choice collection of pigs sired by imported "Kansas King" 1839 and Matchless Liverpool and out of fine sows sired by my famous old Boar Richard 1059, Lord Liverpool 237, and Lord Liverpool 2nd. Can sell at "let live" prices and will guarantee satisfaction to every purchaser. Stock all eligible to registry in A. B. Record. Address, ROLAN ROGERS, Fairlie Center, Johnson Co. Kansas.

## GIDEON BAILEY, Tipton, Cedar Co., Iowa.



## BREEDER AND SHIPPER OF PURE BLOODED Poland-China Hogs.

BREEDING STOCK constantly for sale.

## BERKSHIRE SWINE.



The undersigned having had many years' experience in the breeding of FINE HOGS, desires to call the attention of farmers and breeders to our fine herd of ENGLISH BERKSHIRE SWINE.

## BLACK PRINCE 1025,

Bred by Heber Humphrey England, at the head of the herd. Our Stock is all registered in the American Berkshire Record, and for individual merit cannot be excelled. We have sows in pig, sows with pigs by their side, and also a nice lot of pigs now ready to ship, and we would ask all who desire to procure first class BERKSHIRES to write or call on us before purchasing elsewhere. We have also a few choice Short-Horns for sale. L. W. MICKEY, Vinton, Benton County, Iowa.

## FOR SALE Spanish Merino Rams

The undersigned has for sale thirty American or Spanish Merino Rams got by Irish Superior golden fleeced Ring Ram, a pure Hammon. Clipped last spring without having been shorn during the year, thirty-two pounds (32½) four days less than one year's growth, from pure Sweetstake and Goldstake ewes. Few Southdowns, one fine Cotswold, also Poland-China Pigs. Address, C. PUGSLEY, Independence, Mo.



## Breeder's Directory.

J. J. Ives, Mound City, Linn Co. Kansas, makes a specialty of Brown Leghorn Fowls bred pure from the best strains in the U. S. A few choice birds for sale at reasonable figures. Correspondence solicited.

JOHN W. CAREY, Canton, Ill., breeders and shippers of pure bred Poland-China hogs. This stock took the \$1,000 premium at Canton, in 1871 over 26 competitors.

SAMUEL JEWETT, Breeder of Pure Blood Merino Sheep, 300 Choice Rams for sale. Correspondence solicited. Address, Independence, Missouri.

H. M. & W. P. Sisson, Galesburg, Ill. Breeders and Shippers of Poland-China or Magic Hogs. Young Stock for sale.

FOR Choice Merino Rams and Ewes. Also imported Canada Cotswolds at Moderate Prices. A dress, A. B. MATTHEWS, Kansas City, Mo.

J. M. ANDERSON, Salina, Kansas, Pekin Ducks, J. Partridge, Cochon fowls, and White Guinea. Write to me.

LEVI DUMBAULD, Hartford, Lyon County, Kansas, Breeder of Thoroughbred Short-Horn Cattle and Berkshire Pigs. Young Stock for sale. Correspondence solicited.

E. T. PROVE, Wamego, Kansas. Breeder of Thoroughbred Merino Sheep. Has a number of Bucks for sale this year.

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

WM. HASTIE, Somerset, Warren Co., Iowa, breeder of Short-horn cattle, Cotswold and Leicester sheep. Stock for sale. Correspondence solicited.

O. BADDERS, BREEDERS OF CHOICE HIGH CLASS FOWLS, Leavenworth, Kansas. Brahmas, Cochons, and Leghorns. Eggs in season at \$3.00 per setting. A choice lot of Partridge Cochons for sale cheap. Correspondence solicited.

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WARREN HARRIS, Trenton, Missouri, Breeder of Short-Horn Cattle with Horn-Book pedigree, also, Pure Bred Berkshires. Correspondence solicited and promptly answered.

FRANK LEECH, Waterville, Marshall Co. Kansas, Breeder of thoroughbred Short-Horn cattle and Berkshire pigs. Stock for sale at fair prices.

BYRON BREWER, Glenn, Johnson county, Kansas, Breeder of Poland-China Swine. Pigs not shipped by rail, and warranted first-class. Correspondence solicited.

T. L. MILLER, Beecher, Ill. Breeder of Hereford Cattle, Cotswold Sheep and Berkshire Pigs.

JOHN W. JONES, Stewartville, Mo., breeder of Thoroughbred Short-Horn Cattle of approved blood and pedigree. Also, breeder of Berkshires of the best strains in the United States and Canada.

ALBERT CRANE, Durham Park, Marion Co., Kansas, Breeder of Pure Blood Merino Sheep of fashionable styles. Young stock for sale cheap. Send for circular.

SAMUEL ARCHER, Kansas City, Mo., breeds Spanish Merino sheep as improved by Atwood and Hammond, from the Humphrey's importation in 1832. Also Chester White Hogs, premium stock, and LEIST BAKERS CHOICE, both bred pure by me for eight years past. Send for circulars. \$500 RAMS FOR SALE this year.

LEE & SON, Minook, Woodford Co., Ill. Nurserymen and Breeders of Choice Berkshire Shoats, and Maltese Turkeys. Send for Prices.

R. F. AYRES, Louisiana, Mo., Breeder of Short-Horn Cattle, Berkshire Swine, and Southdown Sheep. Stock for sale, and satisfaction guaranteed.

SAMUEL JEWETT, Breeder of Pure Blood Merino Sheep, 300 Choice Rams for sale. Correspondence solicited. Address Independence, Missouri.

G. W. BLACKWILL, Breeder of Poland-China Swine, and Dark Brahma Fowls; Cedar Rapids, Iowa. Pigs for sale at \$15 to \$50 per head. Eggs \$2.00 per case, containing three dozen.

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PROPRIETOR OF Elmwood Flock of Cotswolds, From imported Stock. Young Stock for sale.

## Nurserymen's Directory.

50,000 Apple Stocks, 1,000,000 Osage Plants, 50,000 Fruit Trees, 25,000 Small Fruit Plants, &c. Apple Root grafts put up to order by experienced hands. Send for Price Lists. E. F. CADWALLADER, Miami County Nursery, Louisburg, Kansas.

KANSAS HOME NURSERY A. C. & H. C. GRIESE, Proprietors, Lawrence, Kansas. We offer for sale home-grown Fruit and Ornamental Trees, Grape Vines, Quinces, Small Fruits, Shrubbery and Evergreens. Apple Seedlings at low prices; apple grafts put up to order.

STRAWBERRY PLANTS.—The new ones at reduced rates. Send for price list to SAMUEL MILLER, Sedalia, Mo.

STEAM GARDENS. Two acres of Glass, Cut Flowers and Bedding Plants by the million. Bottom prices. Try us. Price list free. MILLER & HUNT, Wright's Grove, Chicago, Ill.

FLOWERS.—All lovers of Plants should send for Catalogue of Geraniums, Fuchsias, Verbenas, Roses &c., to ROBERT S. BROWN, Box 1168, Kansas City, Mo.

VILLA NURSERY AND GREENHOUSES.—Grape Vines from 15 dollars per 1,000 and upwards, excellent plants. Greenhouse plants at lowest eastern prices. Address A. SAUER, Kansas City, Mo.

KAW NURSERY, WYANDOTTE CO., KANS. General Assortment of Nursery stock. Especially Apples and Cherry Trees, Grape Roots and other small fruit plants. Address G. F. BARNHART, Box 972, Kansas City, Mo.

HAWKINS & CORNISH, Goshen, N. Y. Growers and Importers of Select Garden and Field Seeds and Choice Seed Potatoes. Illustrated Catalogues free.

CALIFORNIA broom-corn seed; never turns red. Broom machines, Broom-Corn Cultivator. Send stamp for circular. Charleston, Colos County, Ill. R. A. TRAYER.

## General Business Directory.

D. H. WHITEMORE, Worcester, Mass., makes a machine that at once pares an Apple-slices off and separates. Warranted satisfactory. Price, \$1 and \$1.50 each. Sold by Dealers.

## Dentists.

A. H. THOMPSON, D. D. S., Operative and Surgeon Dentist, No. 180 Kansas Avenue, Topeka, Kansas.

## AGENTS.

Mica Lamp Reflectors, 35c. \$2.00 a Dozen. Nigger Head Match Safe, 35c. \$2.00 a Dozen. Patent Pocket Stove \$1.50. Send for Circulars.

C. W. FOSTER & CO., 62 Canal St., Chicago, Illinois.



## The Kansas Farmer.

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

TERMS: CASH IN ADVANCE.

One Copy, Weekly, for one year	2 00
One Copy, Weekly, for six months	1 00
Three Copies, Weekly, for one year	5 00
Five Copies, Weekly, for one year	8 00
Ten Copies, Weekly, for one year	15 00

RATES OF ADVERTISING.

One insertion, per line, (nonpareil) 20 cents.
One month, " " " " 15 " per insertion
Three months, " " " " 10 " " "
One Year, " " " " 10 " " "

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.

A notification will be sent you one week in advance of the time your subscription expires, stating the fact, and requesting you to continue the same by forwarding your renewal subscription. No subscription is continued longer than it is paid for. This rule is general and applied to all our subscribers. The cash in advance principle is the only business basis upon which a paper can sustain itself. Our readers will please to understand when their paper is discontinued that it is in obedience to a general business rule, which is strictly adhered to and in no wise personal. A journal, to be complete and useful to its readers, must be pecuniarily independent, and the above rules are such as experience among the best publishers have found essential to permanent success.

## EDITORIAL NOTES.

"No, sir, I don't believe your agricultural papers can teach me anything about farming. I have lived all my life on a farm and I understand the business." There is not much left to say to a man who feels and talks as this man did. His court has stopped taking evidence and all that can be done is to close the case. We ventured to suggest to this man that he might misunderstand somewhat the scope and character of a farm paper. "Oh no, I know all about them. There is nothing in them but wild talk from fellows that can't or won't work. I never have them in my house. They can't teach me anything, and I know it." This somewhat interested us, and in spite of the unpromising outlook for missionary work, we said, "My dear sir, you will probably admit that farming in all its branches is a very large subject, embracing studies which must extend over years to give a man an intelligent knowledge of the business, and from your own experience you must further admit that in years past it has been progressing and improving in all its methods and details. Now I believe this progress has been brought about very largely by agricultural journals placing before farmers the successful methods pursued by grain-growers, orchardists, gardeners and breeders, giving the improvements and successes, explaining the causes of failures gathered from a wide extent of country. County, state and district fairs, granges and farmers' clubs are all engaged in the same work. The editor of an agricultural paper does not stupidly imagine himself a teacher for all his readers—in all the many branches of farm industry, but he gathers together from all sources—East, West, North and South, the best and most profitable methods pursued by those who succeed. It is his business to place before his readers the practical experience of farmers; to collect information of insect pests and other causes of loss, together with the best known remedies, and in thus bringing together a large amount of useful and seasonable reading each week, the reader can find hints and suggestions which may assist in forming better plans. Besides this there is the advantage of having a reading family, where the sons and daughters may keep pace with the growth and progress of the business of farming, and become informed upon the live topics of the day.

At the close of this short exhortation, my friend thought there was some reason in what was said, but still he said as he had got along a good many years without papers, he could go on just as well without them in the future. There is no fiction about this picture. The man by his industry, and by using the ideas and improved methods carried out around him, makes his farm profitable, and the very influences he imagines himself superior to, are doing more to make that success possible than any skill or judgment of his own. The best varieties of vegetables and grain, the improved stock upon which he prides himself, and the labor-saving implements he uses, have been the result of experiments, investigations and discussions among the large class of thinking, reading farmers, which the stupid, narrow egotism of this man prevents him understanding.

We have not seen this man's home, but we have visited others who talked like him, where papers and books were not to be seen. There were no carpets, no pictures, none of the comforts and conveniences that make happy, cheerful homes. They were bare, barren third-class boarding houses, where work from daylight to dark, was the chief end and aim of life. We have seen, on the other hand, "dug out" prairie homes made cheerful and pleasant, where mothers and fathers and children lived happy, exchanging all the courtesies of the best homes. It has been in the past, and it will be in the future, that American farmers will take rank socially and mentally as their homes show the presence of intelligence and culture.

We have only one point more, and it is that no class of people more thoroughly earn the right to enjoy well furnished homes, good carriages, and all the conveniences of the 19th century, than farmers; and if they care to keep their sons and daughters with them, or give to them in their after years pleasant memories of their home, they must make them cheerful and agreeable. We believe no one thing does more to drive boys from the farm

to the city than the unceasing round of hard work and the coarse, ill-fitting, uncouth clothes they are compelled to wear because they are living in the country. We have no plea to make for vain attempts at fashionable dressing, nor have we any excuses for those who dishonestly spend money for fine clothes which should be used in paying debts, but we do know, without a question of doubt, that young men and young women, whether in the town or in the country, will be neither less sensible or useful if their clothing is becoming to them.

## SHORT-HORN CATTLE SALE AT KANSAS CITY, MO.

The Short-Horn cattle sale advertised here, to take place in the columns of THE FARMER to take place at Kansas City, the 9th and 10th, of this month, was held as advertised. The cattle represented some of the choicest strains of high-bred and fashionable families, together with many ordinary, well-bred, herd-book animals, and Messrs. Vaile, Hamilton, Anderson and the other gentlemen, owning cattle sold, gave entire satisfaction in the honorable manner in which the sale was conducted. Some of those at the sale complained that they were sacrificing largely upon their stock but in view of making the sales annually, the promises made in the advertisements would be strictly adhered to, and they were in the strict letter and spirit of their published advertisements, for which credit is due these gentlemen. While we do not doubt but what the breeders who owned the cattle in this sale, lost money upon the speculative value placed upon them by themselves, so far as we could observe, the stock brought fair prices, when compared with their intrinsic merit for improving common stock. Gilt-edged prices for fashionable short-horns may do as a speculation among professional breeders, but practically for farmers, pure bred stock of any kind must be sold at such prices as will justify their purchase for use in creating high grade animals for market. Another point is that this class of stock must necessarily bring reduced prices to correspond with the general decline in real estate and other property. The value to the great meat producing interest of annual sales of fine stock, at a central point like Kansas City, cannot be estimated, and we hope that a large joint sale extending over three or four days, when the farmers of Kansas, Nebraska, Colorado and Missouri, may secure good animals for their herds will become a permanent institution to be looked for and attended every year.

## AN EXTRAORDINARY SCHEME.

We find the following news item in one of our exchanges:

"Col. H. B. Wright, Congressman from the Luzerne District, Pennsylvania, has got 8,000 names to a petition for a bill authorizing the Government to take charge of migration to the West, giving each man a farm and lending him \$500 on the mortgage of it, where-with to set up."

A government so largely in debt as ours is, can scarcely undertake to loan money that it does not possess. The idea of the government undertaking to loan \$500 on a piece of wild land, to men who cannot pay \$1.25 per acre, is a scheme so wild and visionary that it is somewhat extraordinary that 8,000 people would, in sober earnest, sign such a petition. Uncle Sam would be asked for more farms on such terms than he has acres to give, swamp lands, mountains, and deserts included.

## THE ACT REMONETIZING SILVER HAS PASSED THE HOUSE.

The lower House of Congress passed the Bland silver bill for restoring silver as a legal tender. The vote was 163 for, and 34 against. A number of hard money journals east, declare the President will veto this bill. The overwhelming public sentiment of the country, favorable to the remonetization of silver, would not sustain the President in this course. The act destroying the legal tender value of silver, was a villainous piece of legislative trickery, in the interest of those holding gold-bearing bonds. The west, regardless of party, will sustain the President in making this bill a law when it shall pass the Senate as it no doubt will. The representatives of Kansas in the lower House, Messrs. Phillips, Haskell and Ryan, voted for the bill, and would not have represented Kansas if they had not. Will the Senators do as well? The following is the substance of the bill:

It provides that there shall be coined at the several mints of the United States, silver dollars of the weight of 412½ grains, troy, of standard silver, as provided in the act of January 18th, 1837, on which there shall be the devices and superscriptions provided by said act; which coins, together with all silver dollars heretofore coined by the United States of like weight and fineness, shall be legal tender at their nominal value for all debts and dues, public and private, except where otherwise provided by contract, and any owner of silver bullion may deposit the same at any United States coinage mint or assay office, to be coined into such dollars for his benefit, upon the same terms and conditions as gold bullion is deposited for coinage under the existing law.

## THANKSGIVING.

That National holiday, called Thanksgiving has been appointed by Presidential proclamation, on November 29th. This means many good dinners, some prayers and very little humiliation.

## THE FARMER AND AMERICAN YOUNG FOLKS.

The KANSAS FARMER and THE AMERICAN YOUNG FOLKS will both be sent postage paid one year for \$2.00.

## WHO HAS THE FLOOR?

Did you raise a good crop of wheat? Was your orchard a success? Have you a fine corn crop? Do you grow oats, rye or barley? Have you sold your stock profitably? The evenings are long, sharpen your lead pencil and put down your facts, your experiments and the results in a plain common sense way as you would talk it over to us if we were stopping to break bread with you. Every farmer develops every year some valuable points in farm economy and crops or care and marketing of stock. This is a farmers' club, in which every man interested has a right to talk and ask for information as well as to give it. You are welcome, whether you think as the editor does or not; the pages of THE FARMER are not after the manner of a close corporation, they are broad-gauged and liberal enough to carry differing views. We do not endorse every writer's ideas, he puts forth in THE FARMER, nor do we ask for those who contribute to be of our thinking; all we ask while acting as President pro tem of this big meeting is that speakers confine themselves to their subject, and treat courteously those who differ from them. The hour for general discussion has arrived. The chair desires to state that one of the rules of the club is that members who wish to be recognized by the chair must give their name when rising to speak to any question. What is the wish of the meeting?

## WEATHER REPORT FOR OCTOBER, 1877.

Prepared by Prof. F. H. Snow, of the State University.

STATION.—Lawrence, Kansas, corner of Tennessee and Pickney streets; elevation of barometer and thermometer 875 feet above sea level, and 14 feet above the ground; anemometer on the University building, 105 feet above ground.

Mean temperature 54° 45', which is 1° 15' above the October average for the nine preceding years. Maximum temperature 80° on the 2d; minimum 34° on the 21st; range of temperature 46°. Mean at 7 a. m., 49° 05'; at 2 p. m., 61° 39'; at 9 p. m., 53° 39'. There was no severe frost during the month, the lowest temperature of the air being two degrees above freezing point. The ground, however, was cooled to freezing point four times, producing hoar frosts on the 4th, 21st, 23d and 31st. The frost on the 4th was the first of the season, and occurred later this year than in any previous year of the record. Squash vines, tomato vines, and other tender plants remained entirely uninjured in the gardens of Lawrence to the end of the month.

Rainfall, 5.85 inches, which is 3.56 inches above the October average, and is with one exception the largest October rainfall of our October record. In October, 1870, there were 6.90 inches. Rain fell on 13 days. There were 3 thunder showers. The entire amount of rain for the ten months of 1877, now completed, has been 36.67 inches.

Mean cloudiness, 58.49 per cent. of the sky, this being the cloudiest October on the record, and 23.52 per cent. above the October average. No. of clear days, 10 (entirely clear, 2); half clear, 9; cloudy, 12 (entirely cloudy, 8). The unbroken succession of 7 entirely cloudy days (14th to 20th) was entirely without precedent in Kansas meteorology. Mean cloudiness at 7 a. m., 59.35 per cent.; at 2 p. m., 69.03 per cent.; at 9 p. m., 47.09 per cent.

Wind—N. W., 25 times; S. E., 17 times; N. E., 17 times; S. W., 11 times; N., 9 times; S., 9 times; E., 6 times; calm, twice. The entire distance traveled by the wind was 7,530 miles, which gives a mean daily velocity of 242.9 miles, and a mean hourly velocity of 10.12 miles. The highest velocity was 45 miles an hour on the 28th.

Mean height of barometer, 29.695 inches; at 7 a. m., 29.114 inches; at 2 p. m., 29.066 inches; at 9 p. m., 29.104 inches; maximum, 29.375 inches on the 29th; minimum, 28.731 inches on the 28th; monthly range, 0.644 inches.

Relative humidity—Mean for the month, 79.38; at 7 a. m., 88; at 2 p. m., 65.49; at 9 p. m., 84.55; greatest 100, on several occasions; least 38.5, on the 22d. There were 2 fogs.

## A TEN-PAGE PAPER NEXT WEEK.

To give our subscribers more reading matter, and to accommodate our increasing advertising business, we begin publishing, next week, two extra pages. Our readers will be pleased to know that this 10-page FARMER means a very gratifying business success of the FARMER. There are thousands of new settlers in our state, and we ask our friends to show their FARMERS in their neighborhoods, and thus assist in rolling up the army of 20,000 subscribers which we propose to work for in 1878. A new dress of fine, clear-faced type, and other improvements will be made at the beginning of the new year. Emphatically it must be understood that the FARMER, now in its 16th year, will grow brighter, bigger and better as it grows older.

## Crops, Markets &amp; Finance.

Opinions, Facts, and Figures from Various Sources

## KANSAS CROPS.

The following summary of the crops of Kansas, up to November 1st, is taken from the Report of the State Board of Agriculture, and is as reliable and as nearly correct as it is possible to make such statistics without an extraordinary outlay of money. Nothing that the National Bureau of Agriculture has heretofore attempted in making agricultural statistics, approaches in thoroughness or accuracy the reports of Kansas, under the auspices of the State Board of Agriculture:

## WHEAT.

We have made an effort to procure correct

average yields of the principal crops, six of which are grain, the rest will follow—winter and spring wheat, rye, barley, corn and oats. We have asked this information for the months of July, August, September and October, from our regular correspondents, and, in addition thereto, we have scattered postal cards throughout the State to prominent farmers in the various counties. From all these returns we made an average for each county.

It will be observed that the winter wheat product for the State is 9,714,171 bushels, against 11,788,408 in 1876, a decrease of 2,074,237 bushels, while the average yield per acre is 11.33 bushels, against 15.47 in 1876.

The product of spring wheat this year is 3,518,886; last year 2,881,817; an increase over last year of 636,969 bushels. Average yield in 1877, 17 bushels; in 1876, 10.89 bushels.

Winter and spring wheat products for 1877 aggregate 13,233,057; in 1876, 14,620,225, a decrease in one year of 1,387,168 bushels. The causes which have produced the decrease in winter wheat are exceptional. A portion of winter wheat area was destroyed by locusts in 1876. That which was re-sown uniformly yielded poorly. Then the excessive rainfall during the blooming period, and subsequently up to and during harvest, have conspired to produce the results named. Spring wheat was remarkably good this year, especially in the northwestern part of the State, and farmers are preparing to put in a very large area next spring. This is very questionable policy. The counties of Allen, Anderson, Woodson, Neosho, Bourbon, Miami, and other counties in the southeastern part of the State, have lost more from chinch bugs than the whole State has from the devastation of locusts. Spring wheat has behaved splendidly this year in the west and northwest, the Odessa variety being the general favorite. It is a late variety, and will induce the chinch bug in dry seasons as sure as it is sown. Farmers are, therefore, assuming a fearful responsibility, and hazarding nearly all crops not only, but are assuming, because spring wheat has done remarkably well in 1877, it will continue to do so.

The following tabular statement for six years, from 1872 to 1877 inclusive, of winter and spring wheat, will show the progress in acreage and product each is making in the State:

WINTER WHEAT.		
Year.	Acreage.	Product.
1872	347,685	3,173,695
1873	358,398	4,548,384
1874	438,179	6,870,606
1875	525,681	10,046,110
1876	758,600	11,788,408
1877	857,125	9,714,171

SPRING WHEAT.		
Year.	Acreage.	Product.
1872	64,159	889,346
1873	145,341	1,445,960
1874	278,026	3,010,771
1875	337,523	3,193,287
1876	364,583	2,881,817
1877	306,868	3,518,886

The estimate acreage of winter wheat sown in the fall of 1877 is 1,243,515 acres: an increase over the acreage of 1876 of 386,300 acres, or 45 per cent. The condition of this extraordinary breadth is twenty-five per cent. above a fair average. So favorable has been the fall of 1877 for wheat, and so rank has been the growth, that some farmers have had apprehensions that wheat would "joint," and thereby become injured. This is a widespread popular fallacy. All the pruning that frost can possibly do to a rank overgrowth of fall wheat is beneficial than otherwise. Like applying the knife to the terminal branches of a vigorous tree, where one is removed many others are induced to grow. Frost-pruning will increase the stalks from each stool, and the rank growth will fall down and act as mulch, and protect the plant from the severe dry winds of winter. Wheat had better be sown in July than October.

On the first of May, 1877, 1,541,447 bushels of wheat, the product of 1876, was yet on hand. This was largely held by farmers as security against any possible disaster to the crop of 1877, until the latter was assured. Farmers are in condition, therefore, to hold or sell, as they deem best.

## RYE.

Kansas stands at the head of all the States in the production of rye. The acreage of the fall of 1877 is estimated by our correspondents to be 21,398 acres more than that of 1876, or 18 per cent.

The acreage of 1877 was 119,871 acres; the product, 2,508,890 bushels; average yield per acre, 20.91 bushels. The yield is greatly reduced, from the fact that our farmers generally sow rye for winter and early spring pasture. The extent to which it is grazed, of course, controls largely the yield per acre at harvest.

## CORN.

Corn stands at the head of the list of Kansas crops in acreage, product, and the extraordinary increase from year to year.

In 1873-4, there was a temporary check, owing to the misfortunes of those years; but with these exceptional years, the increase has been marvelous, as will be seen from the following table:

Year.	Acreage.	Product.
1872	1,173,562	46,667,451
1873	1,221,038	29,683,843
1874	1,325,421	15,699,078
1875	1,932,860	80,708,709
1876	1,884,454	82,308,176
1877	2,563,112	103,503,646

The average yield for the State is 40.40 bushels per acre. The average yield for last year was somewhat larger, owing to the copious rains in the early spring of 1877, which prevented the crop from being worked as much as it ought to have been. In many localities entire fields were captured by armies of weeds.

The average yields in 1876, in the follow-

ing Western states, were as follows, according to the National Bureau of Agriculture:

Kansas	43.5
Indiana	30
Illinois	25
Nebraska	30
Oregon	30
Wisconsin	34
Minnesota	25.4
Iowa	30
Missouri	27.8
California	38
Nevada	28

## BARLEY.

The acreage of barley for 1877 was 79,704 acres; the product 1,800,083 bushels. While there has been a reasonable increase during the last six years, it has not proved as remunerative to farmers as most other cereals. The average yield, however, is good, as compared with the rest of the Western States, but the quality does not rank as high. The average yield stands thus in the Western States, according to the National Board of Agriculture, giving Kansas the fourth place among the ten States named:

Oregon	29
Nevada	25.5
Iowa	31
Kansas	23.5
Wisconsin	22
Nebraska	22
California	32
Minnesota	21.9
Missouri	17
Indiana	15.2

The average yield for 1877 is 22.55 bushels per acre.

## OATS.

The acreage of oats in 1877 was 310,326; a decrease since 1876 of 81,610 acres. Notwithstanding this, the increase in the product has been 334,976 bushels; the product aggregating 12,721,293. The average yield was 41 bushels per acre. The following shows the progress in acreage and product of the cereal during the last six years:

Year.	Acreage.	Product.
1872	376,834	9,845,781
1873	374,908	9,008,964
1874	314,946	7,700,586
1875	289,437	9,794,051
1876	391,947	12,866,266
1877	310,326	12,721,293

The average yield per acre in the ten Western states named, in 1876, was as follows:

Indiana	32.7
Wisconsin	31
Iowa	32.4
Nebraska	25.3
Oregon	33
Illinois	25
Minnesota	25
Missouri	20.2
California	33

## Lyon County.

Nov. 5th.—Fall wheat in our county is looking well, the amount sown is quite large; is not a paying crop as far as I have observed, owing to the uncertainty of getting a good yield and a living price for it; rye and oats pay better if fed to stock. The potato crop is fair, price about 00c. per bushel; oats 15c; corn 20c; wheat from 60 to 90c. The breeding of swine, horses and cattle, is profitable business. Stock of all kinds, generally doing well; some loss in young cattle by what is commonly called black-leg; some horses dying with lung fever; swine breeding is, and will be, the chief business of our farmers in the future, as corn can be depended upon as the safest crop for farmers to raise in Kansas; good lands can be bought near markets from \$3.50 to \$6.00 per acre. There never will be a better chance, in our opinion for those wishing homes, than at the present time. We have good schools, churches and a civil class of people, and thousands of acres of good land lying idle for the sturdy husbandman to come on and occupy all he wants, energy and a will to be industrious and he will succeed. W. B. R.

## THE GREAT PLAINS.

Impracticable Plan of Irrigation—Practical Sug-

gestions.

St. Louis, Mo., Nov. 7, 1877.

To the Editor of the Kansas Farmer:

The St. Louis Globe-Democrat of November 7, in its Washington letter, contains a "plan for irrigating and redeeming from sterility a large area along the western border of Kansas and Nebraska," said to have been "compiled at the Hayden survey office from recent data." I can hardly believe that any such plan has been suggested by any one connected with the Hayden survey; or if so, it can not have the sanction of Prof. Hayden. "The plan is," we are told, "to throw up a levee, or embankment, or earthen wall, running north and south from the Arkansas to the North Platte,"—starting at Granada on the south and terminating at Brule on the north; and thus to create an immense lake "four to eight miles wide and 200 miles long." The plan is impracticable and absurd. The elevation of the lands between the Arkansas and Kansas (Smoky Hill) rivers, is so great that it would be impossible to unite the waters of these streams by any embankment that could be made, as the area which would be covered by the lake would be so great that the evaporation would exceed the precipitation over it. Even if the cost were nothing, Congress would never sanction a project that, in its execution, could only have the effect to fill the country with long, narrow bodies of water, to the destruction of railroads and other means of travel, and by masses of water held within unsafe banks periling all the regions below them.

The subject of irrigation on a large scale of the plains east of the base of the Rocky Mountains is, however, an interesting one, and numerous schemes have been suggested. I have heard Judge Usher, of Lawrence, Kansas, say that the waters of the Arkansas could be brought out at the canyon forty miles west of Pueblo, and car-



**\$40 PER DAY!** made with this Machine



The most perfect in the world.  
From 12 to 44 inches in diameter.  
The work of a dozen men. The heavy rollers  
not travel around the shell. All  
raised and lowered instantly. See  
where all others fail. No more  
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**LOOMIS & NYMAN, TIMBER**











Autumn hues—cutting fire wood  
Is a crazy tenement a mad house?  
How many peas in a pint? One P.  
A good square meal—a soda cracker.  
Fast men, you will find, like fast rivers,  
are very apt to be shallow.  
Captain B. Stary, shrewd old fellow, calls  
a sneeze a head wind.  
Of course a man who never speaks must  
be one who "keeps his word."

W. D. Toller, have the luck of some men,  
than a pick-up license to steal.  
Hotel keepers, after all, are people whom  
we have to put up with.

Theodore Parker's tenets of faith set  
forth potatoes first and paintings afterwards.  
Why is a lover like a tailor? That's easy  
enough. Because he presses his suit.

Poker—poker—we are not much used to  
cards, but that must be a grate game.

In one of the down-town hotels is a room  
only lighted by the keyhole of another  
room.

Wanted—A pig from the pen that was  
mightier than the sword. Mr. Harris please  
notice.

Get up early these frosty mornings if you  
want to learn lessons of wisdom from the  
sad-eyed grasshopper that sits on the sun-  
niest window-sill it can find, and weeps be-  
cause it went to moonlight hops and glee  
club concerts when it should have been  
laying in its winter's wood and earning  
money to buy an ulster and a pair of arctic  
tics.

"Are you not alarmed at the approach of  
the king of terrors?" said a minister to a sick  
man. "Oh, no! I have been living six and  
thirty years with the queen of terrors; the  
king cannot be much worse!"

A base, ignoble brute says that when he  
sees a woman neither fat nor fair, but forty,  
with a cardinal red plume on her hat, it  
suggests to him a life and death struggle  
between nature and art, with art on top, by  
a small majority.

She who travels through life atoot and  
alone, for forty odd years, may often yearn  
for a manly breast to lay her head against,  
but her hands are free from callous places  
and broken finger-nails, caused by pulling  
off her husband's boots.

#### SHIPPING BUTTER TO ENGLAND.

England is becoming a good market for  
nearly all our agricultural products. The  
surplus wheat of America is sure of a good  
market in that country. There was a time  
when Russia was looked upon as our com-  
petitor in the wheat supply for England, but  
while America has been increasing the bulk  
of the shipments, Russia has been decreasing  
hers, till there is now no longer any rivalry,  
nor can there be between the two countries  
in this respect. By the use of refrigerator  
rooms in the steamships plying between  
America and England, we are supplying the  
larger cities of that country with a large share  
of their fresh beef. And now by the use of  
the same appliances we are going to bring  
London and Liverpool butter markets within  
easy access of the American dairies. We  
have been sending some butter to these mar-  
kets for years past, but the exposure to  
changes of temperature rendered the shipment  
unsatisfactory, and in many cases unremuner-  
ative; but when the steamships receive our  
butter and agree to deliver it in Liverpool in  
the same condition they receive it, the  
principal difficulties of the trade are removed,  
and we have practically the world as a market  
for the products of our dairies.

A committee of the National Butter, Cheese,  
and Egg Association appointed for that pur-  
pose lately, called on the agents of the steam-  
ship lines, and, after explaining the kind of  
accommodations that would be needed to ship  
butter, they were promised that every ac-  
commodation would be supplied by that line.  
The other lines will all be called upon, and  
doubtless all will provide the necessary  
facilities. This will be a great benefit to  
the American dairy interest, and will stimu-  
late this already important industry more  
than anything that has transpired for a long  
time. When the Englishman eats bread  
made from American wheat, beef raised on  
American grass and corn, and butter made in  
American dairies, practically speaking, the  
English markets are brought to the doors of  
the American farmer. Although the supply  
may be large, the demand will always be  
equal to that supply.—Nebraska Farmer.

#### ADVERTISEMENTS.

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

**FARM. PRACTICAL.**

**ORCHARD. EDUCATION.**

**SHOP. STORE.**

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**AGRICULTURAL COLLEGE.**

Four Years' Course

No Tuition or Continued Fees

Students can meet part of their expenses by paid  
labor. Fall Term opened Aug. 29 and closes Dec. 30,  
1877. Students can enter at any time. Send for cat-  
alogue to J. O. ANDERSON, President, Manhattan,  
Kansas.

All diseases of the Eye and Ear  
cured. Cross eyes easily straightened,  
and all other operations on the  
Eye and Ear skillfully executed.

Also Chronic and Surgical diseases,  
deformities, etc. a specialty at the  
TOPEKA MEDICAL & SURGICAL INSTITUTE,  
AND EYE AND EAR INFIRMARY. For further  
information or consultation, call on or address  
Drs. ELLISON & MULVANEY,  
Physicians and Surgeons in Charge,  
Topeka, Kansas.

**SHEEP LABEL** Centennial Medal awarded. Sizes suit-  
able for marking Cattle, Sheep and Swine.  
Samples free. Agents wanted. Address  
C. H. DANA, West Lebanon, N. H.

## WHITLEY & MORRIS, 10,000 CATTLE

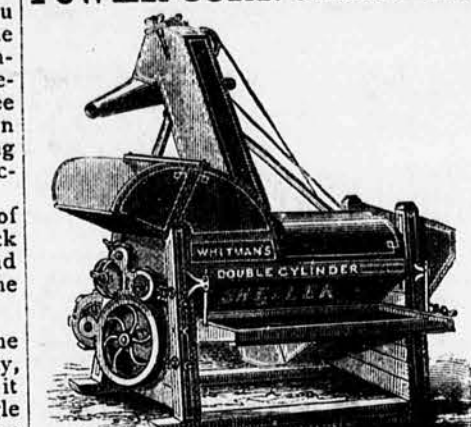
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WILD GAME.**

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prompt.  
Reference. Price Currents and Stencils furnished  
when requested.

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Commission Merchants,**

FOR THE PURCHASE AND SALE OF  
Grain, Seeds, Hides, Green and Dried Fruits, But-  
ter, Eggs, &c. 102 S. Water St., Chicago.  
REFERENCES:  
German National Bank, Chicago.  
Hall, Patterson & Co., Union Stock Yards, Chicago.

**WHITMAN'S  
DOUBLE CYLINDER  
POWER CORN SHELLER**



**THE BEST IN AMERICA  
OUR WARRANTY:**

It will do more work, better work, and with less  
power, than any other in the market. Also manufac-  
turers of a full line of smaller shellers, Feed Cutters,  
Road Scrapers, Horse Powers, Wheelbarrows, Older  
Mills, Presses, &c., &c. Send for circulars and prices.

**Whitmans Agricultural Co.,  
FACTORY AND OFFICE, corner Clark Avenue and  
Eighth Street, ST. LOUIS, MO.**

Trumbull Reynolds & Allen, Sole Agents for Kan-  
sas.

**THE KANSAS QUEEN**

Is a faultless piece of workmanship, and contains  
all the beneficial improvements known to the Reed Or-  
gan. It is manufactured for this market and will be  
sold on the most reasonable terms, direct to the peo-  
ple. Send stamp for terms and particulars. EBER  
C. SMITH, Proprietor, Burlington, Kansas.

**JACKSON'S BEST  
SWEET NAVY CHEWING TOBACCO!**

was awarded the highest prize at the Centennial Ex-  
position for its fine chewing qualities, the excellent  
and lasting character of its sweetening and flavoring.  
If you want the best tobacco ever made ask your gro-  
cer for this, and see that each plug bears our blue strip  
trade mark with words Jackson's Best on it. Sold  
wholesale by all jobbers. Send 12 sample to C. A.  
JACKSON & CO., Manufacturers, Petersburg, Va.

**THE IMPROVED  
HOWE SCALES**

The only  
Scales with  
Protected  
Bearings.

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612 North Third Street, St. Louis.  
195, 97, 99 and 101 Lake St., Chicago.  
**A. M. GILBERT & CO., Managers.**

**DOWN  
WITH HIGH PRICES.**

**CHICAGO SCALE CO.,  
68 & 70 W. Monroe St., Chicago Ill.**



4-ton Hay Scales. \$60; old price, \$100.  
All other sizes at a great reduction. All Scales war-  
ranted. Send for Circular and Price List.

**WORK FOR ALL**

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Visitor (enlarged) Weekly and Monthly. Largest  
Paper in the World, with Mammoth Chromo-  
Free Big Commissions to Agents. Terms and Out-  
fit Free. Address P. O. VICKERY, Augusta, Maine.

**EVERY  
Farmer  
Should  
HAVE  
ONE.**

Challenge Feed Mills,  
Corn Shellers, Feed Cut-  
ters, Horse Powers, Wood  
Saws, Double Header  
Wind Mills for Power  
Purposes, Pumping Wind  
Mills, Pumps, Etc. For  
Circulars Address.

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Batavia, Kane Co., Ill.**

Agents wanted for unassigned  
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Sample Copies sent for two 3 ct. stamps.  
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—LOCATED NEAR—  
**ELLIS, KANSAS,**

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I have now For Sale all classes, and want to close  
them all out in the next ninety days.

Market Opens for Through Texas Cattle, October  
1st in Kansas, this year, instead of November, as  
formerly. Enquire of  
Wm. B. GRIMES, Ellis, Kansas.

September, 8th, 1877.

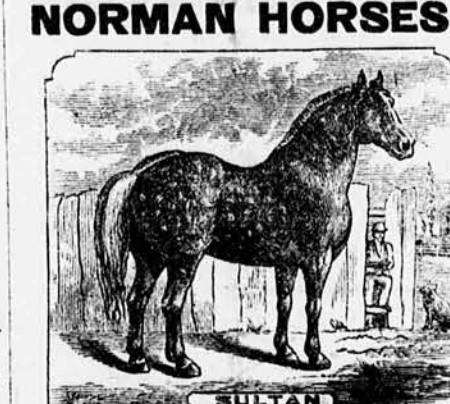
**BROOM-CORN.**

Gregg, Son & Co, 136 Washington St., Chicago, con-  
tinue to make Broom-corn a specialty, and make lib-  
eral advances. Consignments respectfully solicited.  
Address correspondence to A. D. FERRY, 133 Kinzie  
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**SHORT-HORN CATTLE.**

ALBERT CRANE,  
Durham Park, Marion  
County, Kan., breeder  
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of fashionable blood.  
Stock for sale low.  
Also, best Berk-  
shires in Kansas.

**IMPORTED  
NORMAN HORSES**



**E. DILLON & CO.,  
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HAVE made the important and breeding of NOR-  
MAN HORSES a specialty for the last 30  
years. Have imported from Normandy, France, sev-  
enty-five stallions and mares, and have now on  
hand 100 head of Stallions and Mares, as FINE  
A HERD as can be found in the United States;  
all of which we are offering for sale, on terms  
as liberal as the same quality of stock can be had for  
anywhere in the United States. Imported in July,  
1877, 8 as fine stallions as ever crossed the Atlantic  
Ocean, all dark dapple greys, from 3 to 5 years old;  
will weigh, in good flesh, an average of 2,000 pounds  
each. Our Illustrated CATALOGUE, giving description  
of stock, will be sent free of charge, to any one  
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**SHANNON HILL STOCK  
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Thoroughbred Short-Horn Durham Cattle, of Straight  
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Also Berkshire pigs bred from imported and pre-  
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Address GLICK & KNAPP,  
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**BREEDER OF  
Thoroughbred English  
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Dark Brahma and White Leghorn  
Chickens.

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**PURE BRED  
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Eggs of three breeds of Silk-worms awarded for  
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Book on Silk Culture: How to make Silk Culture Pay.  
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Best varieties of mulberry trees, For Sale: Moretti  
Japanese, Lhou, Rose, and many varieties of the  
White. These Trees, the best for Silk-worm food, are  
also ornamental forest and fruit trees. Neither Grass-  
hoppers, Borers, nor other insects injure or molest  
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while yet alive will bring from \$1.00 to \$1.40 a pound.  
Send for Circular. L. S. CROZIER, Williamsburg  
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No one is asked to advance a dollar out of his own  
control until he has seen and tested the instrument,  
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State. If unsatisfactory in any respect it can be re-  
turned at my expense. WHAT CAN BE FAIRER?  
Send stamp for circular, terms and price. EBER C.  
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Cure Guaranteed. Especially those  
of a squamous or scaly character. Don't  
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Thousands already cured with-  
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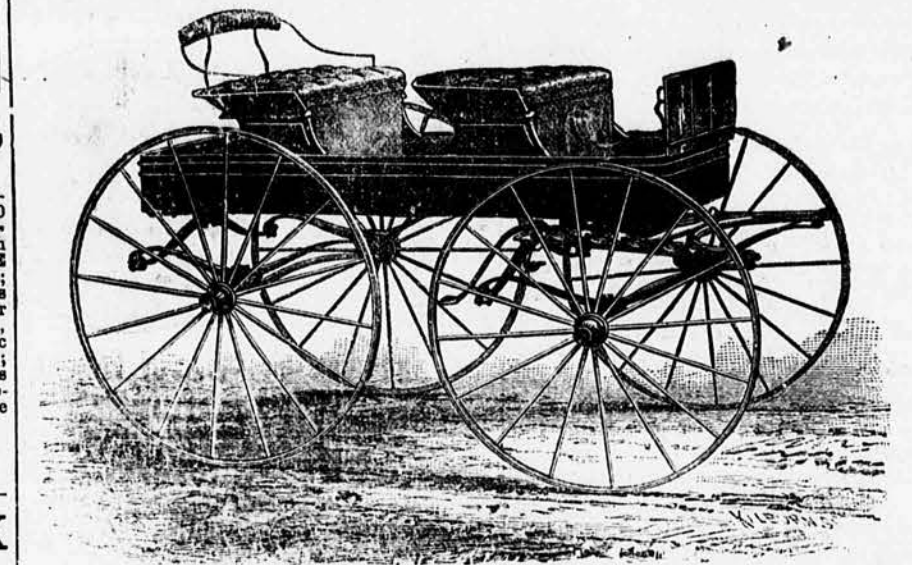
**SUCCESS IS THE TEST OF MERIT.**

The Mitchell Wagon has been before the public for the past 47 years, and has given entire satisfaction  
during that time. None but the most thoroughly seasoned timber and the best material of every description  
is used in its manufacture. It is sold in no less than thirty-five States and Territories of the United States,  
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**Some of the Reasons why the Mitchell Wagon should be used by Farm-  
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They are made by the best Wagon Mechanics in the world. None but the Best Ohio, Indiana, and Can-  
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Boxes are ironed on top. Tongue Hounds are double braced. The PATENT COUPLING, used by us only,  
prevents the wearing and weakening of the hind Axle by an Iron Box Coupling bolted to the hind Axle and  
bolster. Hind End Gate you will notice is double. Bottoms are matched and painted, and have also sup-  
porters, thereby securing the end from breaking when loading heavy weights. The Spokes are driven in  
gins and never work loose. Bolsters on heavy Wagons are ironed on top. All the Stakes are bolted in the  
bolster, and not driven in, as many are which soon work loose. Because they are the Lightest Run-  
ning and Best Proportioned in the market. Because they are the best painted. Mr. MITCHELL,  
having had over 46 years' experience in building Wagons, superintends their manufacture, which is a safe  
guarantee for a perfect Wagon.

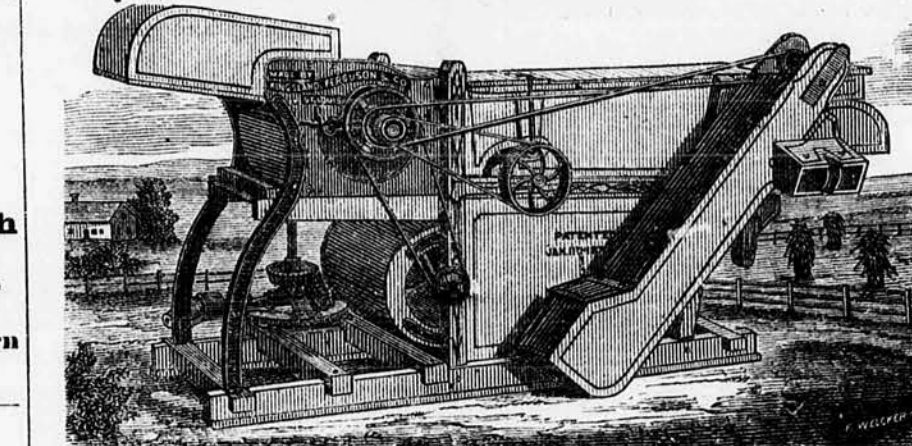
All who use Wagons must not forget that first-class work costs more and is worth more than cheap work.



## CORTLAND Platform Spring Wagon.

It has come to be acknowledged that the "PLATFORM WAGON" is the best form of all others for general  
business purposes—particularly for the farmer, it having a greater range from light to heavy load, carrying  
it with greater ease and safety, being distributed over a greater number of springs, and supporting the load  
from one to ten hundred pounds, is a necessity, the "Platform Spring" is peculiarly suited, carrying the Fam-  
ily to Church and to Town, Grain to Mill, Produce to Market, etc., taking the place of the cumbersome Lum-  
ber Wagon and the Buggy. . . . The manufacture of THE CORTLAND PLATFORM SPRING WAGON covers  
over two acres of ground and contains every modern invention and appliance for making the best possible  
Wagon. Nothing but Platform Spring Wagons are made therein and their unequalled reputation proves  
their superior excellence. Do not be induced to buy shoddy work at any price, but

**BUY THE CORTLAND.**



## The Kingsland Sheller!

**It Shells, Cleans and Saves Unshucked as well as Shucked Corn.**

It is well understood by all using machinery of this kind, that no Picker Sheller will shell unshucked  
corn, and but few, if any, of the Cylinder Shellers have attempted this. This point of excellence will be  
appreciated by all those who have been forced to pay several cents per bushel more for shucked than un-  
shucked corn.

The following testimonials speak for themselves:

CAMBLISTON, Mo., August 17th, 1870.  
GENTLEMEN:—In reply to your enquiry in regard to your No. 3 Sheller, would say we find it superior to  
any we have ever used. We run it there days this week in shuck corn—i. e. ear corn with the shuck on as  
it grows on the stalk; both corn and shuck damp and wet, and we shelled and sacked 3,000 bushels. It has  
proven entirely satisfactory to us and all who have seen it, and we heartily recommend it to anyone  
wanting a small Power Sheller. Yours,  
J. W. BRASHER & CO.

OSCHETREE, Kas, December 13, 1876.  
GENTLEMEN:—We are using the No. 1 Sheller purchased of you recently, and it is certainly gratifying to  
us to be able to say to you that the Sheller is all that we could expect of it. It does its work well, and with  
ease, either in shucked or unshucked corn. Very respectfully yours,  
JOHN S. DAVIS & CO.

**A BOY 10 YEARS OLD**

—Can shell with it—  
**AS WELL AS A MAN.**

**Strong, Compact & Handsome.**

**HARDWOOD FRAME—ALL GEARING IN-  
SIDE. SHELLS THE LARGEST AND  
SMALLEST EAR PERFECTLY.**

—Such is the—  
**New Tiffin (RIGHT  
HAND) Corn Sheller.**

Ask your dealer to show it to you and give you  
price, or write to us.

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KANSAS CITY, MO.**