

# KANSAS FARMER

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## Peanut Culture For Profit.

Prepared by W. B. Helm, and read before the Farmer's Institute at Ellsworth, March 13, 1885.

Until about thirty-five years ago the cultivation of this plant was a nominal affair, and at that time a single house in New York city controlled the supply. But since, the trade has grown to enormous proportions, requiring in that city alone nine wholesale houses and innumerable retail establish-

ments, not to speak of the immense amount of capital and labor in other cities and in the producing districts. In 1881, Norfolk, Va., alone shipped 150,000 bushels.

The nuts are grown in Virginia, Maryland, North Carolina, South Carolina, Georgia, Tennessee, and California; but there are none better grown anywhere than are raised in our own State, Kansas. Good judges East to whom I sent samples pronounce the product of this county superior in flavor and quality to any they ever saw.

I trust that no person present will overrate my opinions in reference to this valuable nut, and grow fanatic upon the subject and invest time, labor and money in attempting to grow rich in raising peanuts in Ellsworth county, for there is no market for them here and for two reasons—first, the small amount consumed, and second, the prejudice of our local dealers in reference to home-grown products, let it be peanuts, potatoes, or garden truck, or in fact almost anything else.

I will also briefly name the different uses of peanuts without comment: The best of sweet oil, the best oil for fine soap. The shells make the finest bedding for horses, and shells used for bedding in your dog kennels will drive off fleas. A good lamp oil. The very best soup—peanut soup with oysters; peanut croquettes; peanut salad; peanut soufflé; peanut patties; peanut cakes; peanuts for dessert; also to eat on the street; San Domingo ground-nut cake; peanut candy and peanut coffee. The latter many a Johnnie reb will tell you is boss, for he has tried it often.

I will give you my own experience, as I have no other to go by. Results of 1884: One-fourth acre, care same as good care for corn, yielded fifteen bushels, or sixty bushels to the acre. Now, as to growing the crop, I will state I never saw a peanut grown until I came to this State, and never had any one to instruct me. Using good common sense secured the results stated, and I think a person who has had experience could do even better.

My method of planting has been to mark one way, the same as for corn, and drop one pit in a place, three feet apart. Your ground should be a little sandy and very rich—the richer the better, loose, and keep it loose during the season till July. Work the same as listed corn, covering the ends of the vine

with the cultivator or hoe but not the center or head of the plant. Secure your crop before hard frost. There is nothing better as food for fowls, either to fatten or to cause them to lay; and as a food for fattening hogs there is nothing that can equal them. An acre of nuts will make more and sweeter pork than an acre of corn, and if you give the hog his liberty he will do all the digging, husking and harvesting of the crop. You grow the crop and give the pig a chance to

first cock, first hen, first cockerel, first pullet. Sweepstakes in the Spanish and Leghorn class for highest scoring pair,—B. N. Pierce, judge.

## The Wonderful Sunflower Described by a Virginian.

Kansas Farmer:

As your paper circulates among a large number of farmers, many of whom we imagine are trying to make an honest living by

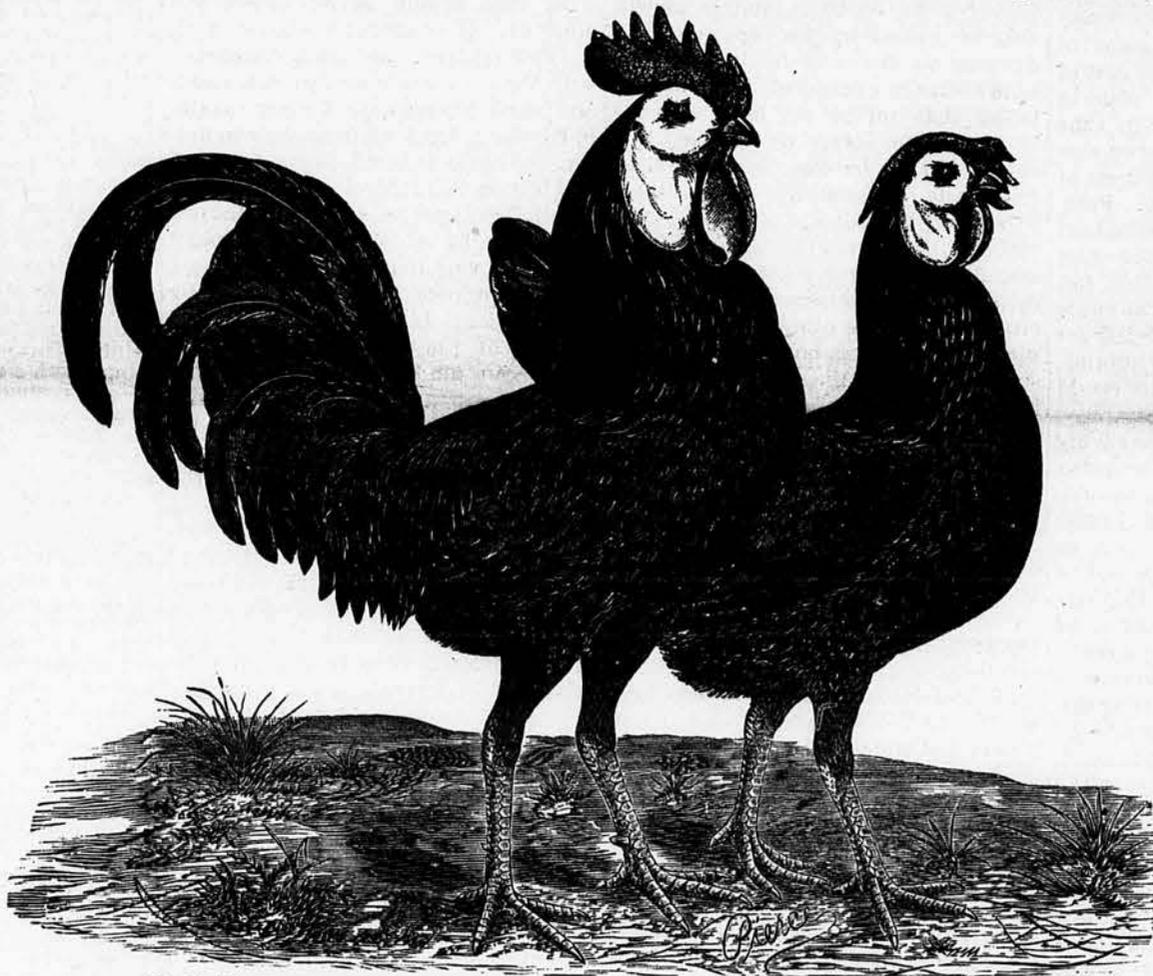
impossible to keep them away. Soon afterwards we discovered they began to lay an immense quantity of eggs, five times more than they ever laid before; so we saved all the seed we could, and fed them part of the winter, after reserving enough to plant a large patch, and the quantity of eggs we got were simply astonishing, and that, too, in dead of winter when others were getting none. We fed the fodder to the cows; also the numerous branches and large pods which

contain the seed, some of them much larger than a dinner plate, and soon discovered the milk and butter doubled in both quantity and quality, the butter changing from a white, spongy nature to a golden tint equal to June butter made while grazing on clover and timothy. This winter we ground some seed and fed in connection with cut up stalks, as it is too rich in oil to feed alone, and we never saw before anything to equal the rich milk and butter. Truly it is the poor man's friend, and rich, too. Our experience teaches us that we can raise five times more chicken and cow feed to the acre than any other plant we know of, except millo maize. Hogs and horses also do well on it. We find it not best to work it too much. It is easy to raise by drawing and setting like cabbage. Last year was the dryest ever seen in this section, and yet we saw but little damage done it while everything else was literally parched up except the millo maize.

Its yield on poor land is astonishing, the roots diving down into the subsoil, opening the pores and letting in the air which makes it as loose as a plant bed, holding the moisture and acting as a subsoiler as is demonstrated by the heavy yield of any crop that follows it. It is the very

thing for the renovation of our old worn-out fields that have become barren by shallow plowing and frequent cultivation.

The large, hard stalks make excellent stove-wood and lots of it of the best kind. A friend in Iowa writes us that the seed makes the best of fuel, equal in every respect to the best of coal and will last as long ton for ton. From one acre he fed a large lot of fowls and kept two stoves going six months. The doctors in the sickly sections of Louisiana say it is the only sure preventive of all malarial complaints. The bloom absorbs the poisonous atmosphere and makes malaria impossible. By planting a small patch near the dwelling, certainly in the prairie country where wood is scarce, its value should be priceless. No seed for sale, but if any of your readers wish to investigate its merits, for 10 cents to pay for mailing and packing, we will send enough seed to get a good start, so by another year all can be supplied. We will in no case send two packages to the same address. With good wishes for your valuable paper; with a hope that in future there will be no North, no South, but one grand family of brothers and sisters, we remain yours truly. HUDSON & Co. Gold Hill, Va.



W. F. B. SPANISH FOWLS.—Specialty of GEO. H. HUGHES, North Topeka, Kas.

will return to you a big per cent. on time and outlay.

## Black Spanish Fowls.

The accompanying illustration represents a pair of White-faced Black Spanish fowls, the specialty of Geo. H. Hughes, President Kansas State Poultry Association, Topeka, Kansas. These fowls have been carefully bred by Mr. Hughes for seventeen years, and he claims for them the most truly ornamental and egg-producing fowl, of the largest eggs of any breed. They are strictly non-setters. The cocks' combs are erect and hens' drooping; plumage of rich, lustrous black throughout. Mr. Hughes also breeds fine Plymouth Rocks and uses them for incubating and raising his Spanish chicks. He won first prize on each and every entry made as follows: Des Moines, Iowa, Poultry Show, December, 1884,—J. K. Felch, judge; first hen, first cockerel, first pullet, first trio. North Missouri Poultry Show, Trenton, Mo., December, 1884, first cock, first hen, first cockerel, first pullet, special cock,—B. N. Pierce, judge. Kansas State Poultry Show, Topeka, September, 1884,

the sweat of the brow, and like ourselves often find it an uphill business, so, for their special benefit we make the following statement, hoping it may prove to be as great a benefit to them as it has been to us and many other Virginia farmers. We claim that we have made one among the greatest discoveries of the 19th century, and that too by mere chance which we honestly believe is destined to revolutionize the whole butter, egg and milk business, and we propose to give it to our fellow-man both North and South free of charge.

Some two years ago, through a friend out West, we came in possession of a small package of the Mammoth Russian sunflower seed. We planted them in the garden, the same as corn and cultivated the same way, planted a little later than corn, and notwithstanding a very dry season raised an immense crop of both seed and fodder, supposed by many to be at the rate of 125 bushels of seed, and 5,000 pounds of nice cured fodder to the acre. At fall when the ripe seed began to fall on the ground, we noticed the chickens were all the time scratching around the roots and picking them up; in fact it was

## The Stock Interest.

### PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.

April 14—James Cunningham, Kansas City, Galloway cattle.

April 22—J. S. Lemen, Short-horns, St. Joe, Mo.

April 22—Col. W. S. White, Sabetha, Kas., Short-horns.

April 22—Geary Bros., Aberdeen Angus, Kansas City, Mo.

May 1—Pettis County Short-horn Breeders, Sedalia, Mo.

May 4—Cass County Short-horn Breeders, Pleasant Hill, Mo.

May 12, 14, 15—Jackson County Short-horn Breeders, Kansas City, Mo.

May 18 and 19—Jas. Richardson, Short-horns, Kansas City, Mo.

May 20—Powells & Bennett, Short-horns, Independence, Mo.

May 22 and 23—Jas. E. Richardson, Kansas City, Mo., Short-horns.

May 23—Leavenworth Short-horn Breeders' Association.

June 1—Col. W. A. Harris and the Giffords, Short-horns, Manhattan.

### Stock Raising--Department, Catt's.

Read before the Farmers' Institute, Ellsworth, by Dr. G. A. Coggeshall, March 13, 1885.

The typical Texas steer of the days of yore is seldom seen in these later days. There is no longer an abundance of free and unrestricted range as there then was. The buffalo grass, so rich and succulent for the cattle of those days, and so adapted to the then conditions of things, is fast passing away, and new grasses are coming in to take its place. And with this change of type of cattle, with this change of the conditions for raising cattle, has come of necessity a change as well in the cost of one's original investment and plant in cattle, necessitating a change in time of all the methods of carrying on successfully and profitably the business of stock feeding and stock raising. Foremost among these changed methods of the stock raising business, the first thing that makes itself sensibly felt with us, is the necessity, the absolute necessity, of having ample shelter for our stock during the winter storms, blizzards and east winds, if we would handle them profitably and successfully. A good warm shelter means the saving of the consumption of just so many pounds of carbon or fat in an animal. And this means the saving of just so many pounds of hay, millet, corn, or whatever food you like, that would be necessary to supply and keep this carbon or fat intact. And if by means of shelter we can preserve the fat already made by the animal, just those pounds of food saved go toward increasing the weight and fat of the animal, and in making so many more dollars per head, for the animal when fat comes to the market. Warm shelter and ample shelter then, are among the first requisites for stock raising, and very particularly in the handling of beef animals. No one can afford to let an animal lose a pound of the flesh that it may have gained on grass during the summer. As early as September, even in most cases here I believe it necessary to supplement the pasturage with corn or some other form of nitrogenous food.

Having shelter, another requisite is good water. Not water standing in pools and stagnant, becoming in the hot days more and more productive of pestiferous germs, but good, living water, spring water. And if one has it not in quantity about him, and can't get it, better were it almost that a millstone were round his neck than that he should attempt to handle cattle. But well water is almost always available, and a small windmill at small expense will put one in condition to afford his cattle one of the necessities of life and health.

Another requisite, of course, is good and ample pasturage for summer food. I believe it is to the advantage of every cattle man, small or large, to enclose his pasture with a cattle-proof fence, and thus to allow them to pasture a given amount of land in peace and quietness, disturbed by no dogs nor ma-

nipulated by the average herder boy. A fence will pay for itself very speedily in the saving of the wages of the herder and in the more natural, peaceable and even manner which the cattle will get their sustenance. To sum up, then, we have as fundamental requisites—good and ample pasturage well fenced, and an abundance of living water. Having these, the next thing necessary is to determine the character and the kind of the stock we wish to handle. This must depend largely if not wholly on the aim or purpose we have in view. If our object is dairying, then we will be likely to handle a very different class of cattle from that which we would handle if our aim and object was the production of beef. The combination of the best milking qualities and the best beef producing qualities are seldom found in any one animal, and I am inclined to think that the attempt to find a general purpose animal of this character is pains and money lost.

If our aim be dairying, then we shall look for the animal we want. Among others, the Holstein, the Ayrshire and the Jersey, and I may add also the Swiss cattle, which in this country are not yet so fully known as either of the other varieties mentioned. And in our selection of either of these families we will also be guided by the department of dairying we desire to follow. If gilt-edge butter be our object, we cannot do better than infuse our herd with the blood of the Jersey or Guernsey. If cheese-making be our object, we shall find the Jersey family not at all suitable to our purpose, but will select the Holstein or the Ayrshire. Sometimes we may find among our native cows specimens that are choice and desirable for either one or the other of the departments of dairying, but the safest and surest plan, and the one that will pay best in the long run, is to seek for our animals among those families in which these characteristics have been firmly fixed by long years of careful selection and breeding.

If, on the other hand, the production of beef be our object, we then must turn to still quite different families to find the animal that shall best accomplish our purpose. With this object in view, one thing must ever be on our mind, and that is, to find the animal best adapted to the climate and soil of our country and which with this adaptation shall produce at the earliest maturity and at least actual cost for food, the best marketable quality of beef. I am not sure that the animal combining these requisites has yet been found for Ellsworth county. But we have three great and noted families to choose from: the Short horn or Durham, the Hereford, and the Black Polled cattle, the latter divided into two classes, the Polled Angus and the Galloways. Each have their admirers and their champions. But which are best adapted to the climate, grasses and other present conditions of Ellsworth county, I am not competent to decide. Much depends upon the shelter and other conveniences that one may have for handling his cattle during the severity of our winter seasons. As far as my individual opinion goes, I am inclined to think that the thoroughbred Short-horn is as yet unable to successfully cope with the conditions of our climate and our grasses. I believe that the Herefords are somewhat better adapted to our county than are the Short-horns. And whether they be or not, I think that at this present time one can be surer of getting better blood and a better animal out of this family than from the Short-horns, for the reason that much more care has been taken in their breeding, by reason of their having been more closely con-

and certain breeders. They are, however, becoming more and more popular, more widely diffused, and they rank very equally with the Short-horns, and it may be predicted, therefore, that they will suffer more or less depreciation like the Short-horns, from incompetent handling and ignorance and lack of skill in breeding.

With regard to the polled cattle, I have had no personal experience; but with the Galloway variety in respect to those specimens I have seen, I have been greatly pleased. Of a hardy race, inured to exposure and great inclemency of weather in their native country, possessing therefore naturally a thick and shaggy covering of hair, the inner portion of which is particularly soft, and promising moreover the property of making as choice beef as can be produced for the market, they would seem theoretically to approach the nearest towards being the beef animal for us to handle in this county. But a very short time now will be needed to determine their excellence in this respect and to base their claim to such upon a foundation not experimental.

Whatever may be our choice with regard to family, one thing is all important, we should possess as good a bull from that family as our means will allow us. If we cannot commence with a thoroughbred, we must commence with the best grade we can command; and let us always have for our maxim in breeding, *breed up* from poor to better, and never to breed down.

While on this subject of the choice of a bull, it will not be amiss to point out a method by which, even the small farmer of very limited means can get a bull to improve his herd. That is, by co-operation. If there are a number of farmers of limited means, neither of whom can afford to get a first-class thoroughbred and a first-class individual of its kind as well, let them club together and get a bull to be used in common among them. In this way the same money which would procure only an inferior bull, will give each the benefit of the best blood to be found. And in this connection let me say one word with regard to pedigree. Pedigree is a most important factor in the selection of an individual of a family. But the mere fact of an animal having a long pedigree will not insure his being a desirable animal. We must in fact look both to pedigree and to individual merit. A long pedigree may be a long record of careless and ignorant breeding.

One thing we have to keep constantly in mind with regard to the young of our herds, and that is, never under any circumstances allow them to decrease in weight or to cease from growing. To insure this, proper and abundant food must be afforded them. For young calves during their first winter after being weaned, I have found a mixture of wheat bran, rye chops and linseed oil-cake meal in two rations a day an excellent winter food, combined of course with some coarser fodder, such as millet, hay, or sheaf oats. Both millet and sheaf oats are excellent for young calves. An early spring pasture of rye is also a powerful and economical adjunct.

Avoid abrupt changes of the character of the animal's diet. Much valuable property is lost yearly from lack of heed to this important rule. One cannot be too careful when his calves or cattle first go to green and rankly growing food to accustom them to it by gradual degrees. The same rule holds good when changing in the autumn from green pasture to dry feeding. Of course, with any kind of diet all are aware that salt is an indispensable adjunct and should be so furnished that the animals may get to it at all times at will. The mixture of a small propor-

tion of sulphur with the salt is also beneficial and I believe saves much sickness in cattle. While the danger is not wide-spread, I believe there is danger in getting young calves too fat, making them extremely liable when the spring change of diet comes, even with the utmost care, to the disease called blackleg.

Be gentle and kind in your treatment of your cattle. Make them to feel always that you are their friend as well as their master; that in your presence they may be content and have no fear.

### A Small Flock of Sheep.

Sheep do best and return the largest per cent. of profit when kept in small flocks, less than fifty. Wool should not be the sole aim in keeping sheep, the lambs are the real things to be looked after, mutton varies less in price than any class of meat, while the demand is steady at gradually increasing prices for superior quality. The Southdown is without a rival for mutton although other breeds are said to be good under some conditions, but there can be no mistake in selecting the Southdown for a cross. With any of the Down breeds it is usual to raise as many lambs as there are breeding ewes in the flock and a lamb of any breed is worth as much at one year as its dam. Two hundred dollars invested in sheep will ordinarily double itself in a year and the wool pay all cost of keep.

There are a few points that should be remembered and pondered, first that the manufacture of woolen goods is not going to stop, second that in the palmiest days of wool growing, about forty per cent. of the wool and woolsens consumed were imported, third, the continued high price of all meats for a long series of years demonstrates plainly that in contributing to the meat supply is the surest way to make the farming pay. Even poultry has doubled in selling price the last few years. Diversified farming is conceded the most profitable in Ontario, a small flock of sheep could well be added to the stock on many small farms. Sheep require care—intelligent care, and that is just what a man with a small farm and little stock can best give them. I should rather expect a man with forty acres of land and \$200 worth of sheep to make more money out of his flock than another with a thousand acres to do so.

The wintering of sheep depends much on the condition of the flock at the beginning of winter. Sheep if low in flesh in the fall hardly ever improve, but keep going down hill all along, until before the spring time draws around their pelts are hanging in the shed. See, then, that your flocks are in good condition, and if there are any thin ones among them, separate them from the rest and give them a little grain each day until they have gained their wonted vigor. It is much cheaper and more easy to put sheep in good condition in the fall than to have to coax and nurse them all through the winter and then only secure their pelts for your trouble. But it is a bad policy and poor management to allow them to run down in the first place, as it does not cost much more to keep them thriving than it does to let them go to "sticks," but after they once get down it costs a great deal both of time and feed to get them up again.—*National Stockman.*

The Central Kansas Wool Growers' Association hold their next annual public sheep shearing at Russell, Kas., April 14 and 15.

### Percherons Best for City Use.

A. M. Stein & Co., Brooklyn, N. Y., handle 2,000 horses annually, mostly heavy draft. They say of the grade Percherons: "We handle more of the Percherons than of any other breed. There is more demand for them. They give the best satisfaction, no matter how little of the blood there is in them. Generally they have good feet and last better on our pavements than the Clydesdales or other breeds. Tell the farmers of the West to keep their Percheron mares and breed them. Would advise breeding to Percheron horses in preference to any other breed."—*Chicago Tribune.* During the past twelve months, over 600 Percherons have been bought in France and imported to Oaklawn Farm by M. W. Dunham, of Wayne, Ill., whose purchases are almost exclusively confined to pedigreed animals, recorded in the Percheron Stud Book of France, as the honest and careful breeders of pure-bred stock would no more buy a horse imported from France, without a pedigree, than they would buy an imported Short-horn or Hereford bull that was not recorded in England.

# In the Dairy.

## The Creamery in Kansas.

A paper read by Jas. F. Crofoot before the Farmers' Institute at Ellsworth, March 13, 1885.

The manufacture of creamery butter in Kansas is a new industry, the first creameries having been established only about three years ago. In fact, the gathered cream plan, which is the only plan by which creameries can be made practicable in the thinly settled parts of our county, has been introduced but a short time. I shall not attempt within the limits of this article to give the history of the business, but will state a few facts in regard to its advantages and the obstacles to be met in establishing the business.

The condition of the butter market has changed wonderfully during the last five years. The butter market used to be a market for butter. To-day it is also a market for tallow, lard, cotton seed oil, and for some of the ingredients from which soap and axle grease are made. It is a fact that a large portion of what is sold and eaten for butter to-day has not 20 per cent. of pure butter in its composition. And these compositions have very largely taken the place of the common grades of butter. The market now calls for top grades and fresh made, and any other is almost unsalable. It used to be that the surplus of June and July butter could be held over for the winter trade; but last year there was a large surplus of butter made, and large quantities were held till winter months, and this butter has been waiting purchasers all winter at prices ranging from 15 to 20 cents per pound on the New York market, and at no time could the best of it be sold at a profit to the holders over the very low prices of last summer. But a short time ago Denver and Colorado used the surplus of Kansas butter at fair prices the year round. Last year from the first of May until September our merchants could not realize five cents per pound above the cost of shipping from Kansas dairy butter, and for the two months last passed our dairy butter would not average over 10 cents per pound to shippers, while creamery butter sells readily at fair prices. The fact is, Colorado is now supplying its trade from its home ranches, and the only demand from these is for first class creamery to supply the fancy trade. I predict that within two years Colorado will be making butter for export during the summer months, so rapidly is the dairy business there increasing. In fact, Colorado, as a market for the surplus butter of Kansas is a thing of the past. We must look for an eastern outlet for our butter as well as for our wheat. And that means we must make a number one article if we expect a profit from it.

Last summer the best grades of Kansas dairy butter would bring from 8 to 12 cents per pound in New York City, counting out the expense of shipping; that would leave from 4 to 6 cents for the shipper; the poorer grade would go still lower. At such prices Kansas can not afford to make butter.

But, Kansas creamery butter ranks in the New York market with Iowa, Wisconsin and Illinois creamery, and out-sells New York dairy. It sold at from 18 to 20 cents per pound when prices were as noted above for dairy, which would make creamery net us from 12 to 16 cents here during the extreme low prices of last summer. But we must now consider the cost of creamery butter. First, the cream is taken at the door of the dairyman and hauled in wagons to the creamery, where it is manufactured into butter,

packed in suitable packages and prepared for market. These expenses vary largely, particularly the expense of gathering the cream, which changes according to the amount of cream gathered from each route. With a patronage such as this county could and should give to a creamery, the whole expense should not exceed three cents per pound; and as the difference in prices between dairy and creamery butter is from 8 to 10 cents, this would leave a profit of from 5 to 7 cents per pound to be divided between the dairyman and the manufacturer. There is also great saving of labor to the dairyman in churning and preparing butter for market. Also, if the milk be properly handled, it is always skimmed sweet, and thus is worth much more for feeding to calves and pigs. By properly using the milk cans used by the creamery patrons, the cream will all rise in from six to twelve hours after setting.

In order to separate cream from milk, it is necessary to change the temperature of the milk, and during the warm season the more rapidly the heat is taken from the milk, the quicker and more thoroughly this separation takes place. Much cream is wasted in the old way of handling milk by not acting on this principle, and much butter is also wasted by churning at an improper temperature. I believe that the butter makers of Kansas, though not having the facilities for handling milk and cream in a proper manner, or not understanding the conditions required, waste at least one-fourth of the butter contained in the milk when it is taken from the cows. Through the extra facilities of a properly managed creamery these losses are saved. Another advantage is in handling large quantities of a uniform grade of butter. It can be put on the market almost daily and perfectly fresh; and if a dealer is handling a brand of creamery butter and finds it always fresh and sweet, he is willing to pay better prices for it than for small lots, even though he might sometimes get it equally as good.

[Concluded next week]

## BERKSHIRE HOGS.

My herd now numbers about Forty Breeding Sows and Four Boars, including representatives of the best families of the day, and also prize winners at the leading shows of this country, Canada and England. I have now in use in my herd sows that won in England in 1883, 1882 and 1881, and descendants of noted prize-winners previous to that time. The principal sow in use in my herd at present is "Duke of Monmouth" 11361, who won in 1883 the first prize at four leading shows in England, including first at the Royal Show, and also first prize at two leading shows in Canada. He thus won six continuous first prizes without being beaten, a like record I believe never attained by any other boar. I paid \$400 for "Duke of Monmouth." He is a splendid breeder, an animal of great constitution and comes from the same family as my old boar, "Lord Liverpool" 221, for whom I paid \$700, and who is now almost eleven years old and still alive. I have now a splendid lot of pigs from three to six months old, the bulk of which are got by "Duke of Monmouth." I would also spare a few of my sows, young or old, when in pig, and part of my breeding boars. I do not advertise prices as low as the lowest, for I cannot afford to sell as low as those who bought a cheaper class of stock to start with, but my prices are reasonable and within the reach of all who know the value of first-class stock. My herd of Berkshires show as much size as hogs of any breed, and I am sure I can show more quality, activity, constitution and size than is combined in any other breed of hogs. Almost if not every prominent herd of Berkshires in the West contains representatives from my herd, and this alone, considered in connection with the many prizes I have won for ten years past at our largest shows, proves beyond a doubt the quality of stock I am producing from year to year. No breeder of any kind of hogs in the United States or Canada has for several years past bought and retained in his herd so many valuable animals at an equal cost as I have. I have issued a new catalogue this season containing the pedigrees in full of my herd and a limited description of each animal, together with a complete list of prizes won for several years past. This catalogue I will mail free to all who feel interested enough to write for it.

I am also breeding High-grade Short-horn Cattle and Merino Sheep. Have now about 100 good young rams for sale.

I have reduced rates for shipping. All parties visiting from a distance will be met at the train, if notice is given in time.

For prices or any further information, address

**N. H. GENTRY,**  
Sedalia, Mo.

## BREEDERS' DIRECTORY.

Cards of three lines or less, will be inserted in the Breeder's Directory for \$10.00 per year, or \$5.00 for six months; each additional line, \$2.00 per year. A copy of the paper will be sent the advertiser during the continuance of the card.

### CATTLE.

**CEDAR-CROFT HERD SHORT-HORNS.**—E. C. Evans & Son, Prop'r's, Sedalia, Mo. Youngsters of the most popular families for sale. Also Bronze Turkeys and Plymouth Rock Chickens. Write or call at office of Dr. E. C. Evans, in city.

**W. M. D. WARREN & CO.** Maple Hill, Kas. Importers and breeders of Red Polled Cattle. Stock for sale. Correspondence solicited. R. E. station, St. Marys, Kas.

**DEXTER SEVERY & SONS,** Leland, Ill. breeders of Thoroughbred Holstein Cattle. Choice stock for sale, both sexes. Correspondence invited.

**JOHNSON & WILLIAMS,** Silver Lake, Kas., breeders of Thoroughbred Short-horn Cattle. The herd numbers thirty head, with a Rose of Sharon bull at head.

**LOCUST RETREAT FARM,** Bacon & Campbell, Manchester, St. Louis Co., Mo., breeders of HOLSTEIN CATTLE and PLYMOUTH ROCK FOWLS. Holsteins excel in milk, butter and beef. They are the all-purpose cattle. First-class stock for sale. Plymouth Rocks are the farmer's fowl. Pair, \$3.50; trio, \$5.00; eggs, \$1.50 for 13.

**BROAD LAWN HERD** of Short-horns. Robt. Patton Hamlin, Kas., Prop'r. Herd numbers about 120 head. Bulls and Cows for sale.

**ALTAHAM HERD.** W. H. H. Cundiff, Pleasant Hill, Cass Co., Mo., has fashionable-bred Short-horn Bulls for sale. Among them are two Rose of Sharon and one aged show bull. None but the very best allowed to go out from this herd; all others are castrated.

**U. P. BENNETT & SON,** Lee's Summit, Mo., breeders of THOROUGHBRED SHORT-HORN CATTLE, Cotswold sheep, Berkshire swine, Bronze turkeys and Plymouth Rock chickens. Inspection invited.

**POWELL BROS.,** Lee's Summit (Jackson Co.), Mo., breeders of Short-horn Cattle and pure-bred Poland-China Swine and Plymouth Rock Fowls. Stock for sale. Mention this paper.

**W. A. POWELL,** Lee's Summit, Mo., breeder of the Cattle. Inspection and correspondence solicited.

**WALNUT PARK FARM,** Frank Playter, Prop'r. Walnut, Crawford Co., Kas. The largest herd of short-horn cattle in Southern Kansas. Stock for sale. Correspondence invited.

**A. HAMILTON,** Butler, Mo., Thoroughbred Galloway cattle, and calves out of Short-horn cows by galloway bulls, for sale.

**J. W. LILLARD,** Nevada, Mo., Breeder of THOROUGHBRED SHORT-HORNS. A Young Mary bull at head of herd. Young stock for sale. Satisfaction guaranteed.

**OAK WOOD HERD,** C. S. Eichholtz, Wichita, Kas. Live Stock Auctioneer and breeder of Thoroughbred Short-horn Cattle.

### Hereford Cattle.

**SHOCKEY & GIBB,** Lawrence, Kansas, breeders and importers of Hereford cattle. Choice thoroughbreds and high-grades of both sexes always for sale.

**SABOOKIS HEREFORD HERD.** J. Gordon Gibb, Lawrence, Kas., importer and breeder of Hereford Cattle. Stock for sale.

### CATTLE AND SWINE.

**H. S. FILLMORE,** Green Lawn Fruit and Stock Place, Lawrence, Kas., breeder of Jersey Cattle, Poland-China and Berkshire Swine. Stock for sale.

**I HAVE 10 young pure bred Short-horn Bulls, 10 Cows and Heifers, a few choice Poland-China Boars and Sows—the latter bred for sale. Send for new catalogue H. B. Scott, Sedalia, Mo.**

**GLENVIEW FARM.** G. A. Laude, Humboldt, Kas., breeds Short-horn Cattle and Poland-China Swine. Also Saddle and Harness Horses.

**SHORT-HORN PARK,** containing 2,000 acres, for sale. Also, Short-horn Cattle and Registered Poland-China. Young stock for sale. Address B. F. Dole, Canton, McPherson Co., Kas.

**WOODSIDE STOCK FARM.** F. M. Neal, Pleasant Run, Pottawatomie Co., Kas., breeder of Thoroughbred Short-horn cattle, Cotswold sheep, Poland-China and Berkshire hogs. Young stock for sale.

**DR. A. M. EIDSON,** Reading, Lyon Co., Kas., makes a specialty of the breeding and sale of thoroughbred and high-grade Short-horn Cattle, Hambletonian Horses of the most fashionable strain, pure-bred Jersey Red Hogs and Jersey Cattle.

**COTTONWOOD FARM HERDS,** J. J. Malls, Manhattan, Kansas, Breeder and shipper of SHORT-HORN CATTLE and BERKSHIRE SWINE. Orders promptly filled by express. The farm is four miles east of Manhattan, north of the Kansas river.

### SHEEP.

**E. COPLAND & SON,** DOUGLASS, KANSAS, Breeders of Improved American Merino Sheep. The flock is remarkable for size, constitution and length of staple. Bucks a specialty.

Registered Merino Sheep, Bronze Turkeys, Light Brahmas and Plymouth Rock fowls. Eggs for hatching. Catalogue free. R. T. McCulley & Bro., Lee's Summit, Mo.

**G. B. BOWWELL,** Breckenridge, Mo., has 1,100 Merino rams for sale. 250 of them are registered. His seven best stock rams shear from 27 lbs. to 33 lbs., weigh from 145 lbs to 180 lbs.

**C. F. HARDICK & SON,** Louisville, Kansas, breeders of REGISTERED AMERICAN MERINO SHEEP, Having good constitution and an even fleece of fine, dense wool.

*Fine wool a specialty.* Come and see our flocks or write us.

**A. F. WILLMARTH & CO.,** Ellsworth, Kas. breeders of Registered Spanish Merino Sheep. "Woolly Head" 885 at head of flock. Choice rams for sale. Satisfaction guaranteed.

### SWINE.

**S. H. TODD,** Wakeman, Ohio, breeder of Recorded S. Premium Chester White Swine and Imports Shropshire Down Sheep. Send for circular with price list and particulars. It pays to get the best.

**F. M. BOOKS & CO.,** Burlingame, Kas., importer and breeders of Recorded Poland-China and Large Berkshire Swine. Breeding stock the choicest from the best herds in seven States. I have special rates by express. Write.

**J. A. DAVIDSON,** Richmond, Franklin Co., Kas., breeder of POLAND-CHINA Swine. 170 head in herd. Recorded in A. and O. P.-C. R. Call or write.

**CATALPA GROVE STOCK FARM.** J. W. Arnold, Louisville, Kansas, breeds Recorded

POLAND-CHINA SWINE and MERINO SHEEP. The swine are of the Give or Take, Perfection, and other fashionable strains. Stock for sale in pairs not related. Invite correspondence or inspection of stock.

**ROBERT COOK,** Jols, Allen county, Kansas, importer and breeder of Poland-China Hogs. Pigs warranted first-class. Write.

### POULTRY.

**EGGS FOR SALE**—From Light Brahmas, Buff Orpingtons and Plymouth Rocks, 13 for \$1.75; 28 for \$3. Also Pekin Duck eggs, 11 for \$1.75; 22 for \$3. Also Emden Geese eggs, 6 for \$2; and Bronze Turkey eggs, 12 for \$3. W. J. McColin, Waveland, Shawnee Co., Kas.

**BRONZE TURKEY EGGS**—\$3.50 per 12. Our Tom weighs over 40 pounds. Plymouth Rock eggs, \$1.50 per 12. H. V. Fugatey, Plattsburg, Mo.

**FAIRVIEW POULTRY YARDS.** Mrs. G. Taggart, Parsons, Kas., breeder of L. and D. Brahmas, E. Leghorns, Houdans, Plymouth Rocks, Langshans, P. Cochins, G. L. Bantams Wyandottes and B. E. R. Games. Send for price list.

**W. M. WIGHTMAN,** Ottawa, Kansas, breeder of high-class poultry—White and Brown Leghorns and Buff Cochins. Eggs, \$2.00 for thirteen.

**N. E. NYE,** breeder of the leading varieties of Choice Poultry, Leavenworth, Kansas. Send for circular.

**NEOSHO VALLEY POULTRY YARDS.**—Established, 1870. Pure-bred Light Brahmas, Partridge Cochins, Plymouth Rocks. Eggs in season. Stock in fall. Write for prices. Wm. Hammond, box 190, Emporia, Kas.

**ONE DOLLAR** per thirteen for eggs from choice Plymouth Rock fowls or Pekin ducks. Plymouth Rock cockerels \$2 each. Mark S. Salisbury, Box 931, Kansas City, Mo.

**S. E. EDWARDS & BRO.,** Emporia, Kas. breeders of high-class Plymouth Rocks and Partridge Cochins. Eggs, \$2 per 13. Correspondence cheerfully answered.

**DIVERSIDE POULTRY YARDS.**—Plymouth Rock and Partridge Cochins for sale, and eggs during the hatching season. Watson Randolph, Emporia, Kansas.

**GROUND OYSTER SHELLS FOR SALE.** Five pounds, 5 cents per pound; 25 pounds, 4 cents per pound; 200 pounds, 3 1/2 cents per pound. It is the best egg-producer known. Give it a trial and be convinced of its merits. Also Pure Plymouth Rock Eggs for sale—\$2 for 13; \$3.50 for 24. G. H. Flintham, 71 Kline avenue, Topeka, Kas.

### MISCELLANEOUS

**MERINO SHEEP,** Berkshire hogs and fifteen varieties of high-class poultry of the best strains. Bucks a specialty. Harry McCullough, Fayette, Mo.

**A. J. CARPENTER,** Milford, Kansas, breeder of Thoroughbred Poland-China Swine. Stock for sale. Inspection and correspondence invited.

**PROSPECT FARM.**—H. W. McAfee, Topeka, Kas. For sale cheap 10 registered Short-horn bulls, 1 to 5 years old. Also, Clydesdale horses.

**REPUBLICAN VALLEY STOCK FARM.**—Henry Avery, Wakefield, Clay Co., Kas., breeder of Percheron horses. Stock for sale. Send for catalogue.

**S. A. SAWYER,** Manhattan, Kas. Live Stock Auctioneer. Sales made in all the States and Canada. Good reference. Have full sets of Herd Books. Complete catalogues.

## Agricultural Books,

At Publishers' Prices, Postage Paid.  
**T. J. KELLAM,**  
183 Kansas Ave., Topeka, Kansas.

## HEREFORD CATTLE.

THOROUGHBRED BULLS and HIGH-GRADE BULLS and HEIFERS for sale. Inquiries promptly answered.

**WALTER MORGAN & SON,**  
Irving, Marshall Co., Kansas.

## THE LINWOOD HERD SHORT-HORN CATTLE



IMP. BARON VICTOR  
W. A. HARRIS, Linwood, Kansas.

The herd is composed of VICTORIAS, VIOLETS, LAVENDERS, BRAWTH BUDS, SECRETS, and others from the celebrated herd of A. Cruickshank, Stilton, Aberdeenshire, Scotland. GOLDEN DROPS, and URS, descended from the renowned herd of S. Campbell Kinellar, Aberdeenshire, Scotland. Also YOUNG MARYS, YOUNG PHYLLIS, LADY ELIZABETH, etc. Imp. BARON VICTOR 42824, bred by Cruickshank, and Imp. DOUBLE GLOBE head the herd. Linwood, Leavenworth Co., Kas., is on the U. P. R. R., 27 miles west of Kansas City. Farm joins station. Catalogues on application. Inspection invited.

Gossip About Stock.

Western Colorado wants more young breeding stock.

The range between Pueblo and Trinidad is said to be overstocked.

Twenty-eight head of cattle, six horses and a lot of pigs were burned in a barn last week at Douglassville, Pa.

There has been a considerable loss among Indiana cattle the past three months. We incline to think the cause was the long continued feeding on dry food.

Mr. Hubbard, who has referred, in these columns recently, to his heifers and their sore feet, cured them by raising the scab and pouring turpentine in the hole.

The big steer, "Kansas King," that was shown at the State Fair last fall by S. S. Tipton, Mineral Point, Kas., is still on his farm and weighs 3,550 pounds and is not very fat yet.

The Cattle Railroad company will, we suppose, soon be organized to build a railroad over the route lately proposed for the National cattle trail. A railway to haul cattle would do away with the dead-line business.

Lovers of the famous polled breed of cattle will please notice that a public sale of Galloway cattle will be held at Kansas City, April 14, by Jas. Cunningham, of Tarbreoch, Scotland. There should be a large attendance at this sale. See ad.

The catalogue of the Short-horn sale of A. H. Lackey & Son and others at Peabody, Kas., April 1st and 2d, is a most sumptuous book, and indicates that a large number of well-bred cattle—Cruikshanks, Jubilees, etc., are to be sold. See sale advertisement in these columns.

The great bull Ravenswood Lad 57653, owned by Henry Blakesley, Peabody, Kas., that took the first premium at the Kansas State Fair three years in succession in his class, is to be sold at the grand combination sale advertised in these columns to take place April 1st and 2d prox. Some wise man will put that bull at the head of his herd.

Farmers and breeders of Kansas evince considerable good business sense by using pure-bred males on their herds and flocks. They find it pays. It does not cost so much to raise a good animal as it does a scrub. Kansas is fast taking the lead for good stock of all kinds. Breeders are now advertising more sales and better demand than ever.

We have received the premium list of the Live Stock Exposition to be held at Peabody, Kas., April 1st and 2d. Liberal prizes are offered for pure-bred horses, cattle, swine and poultry. A joint sale of 125 thoroughbred Short-horns will be made by Messrs. Lackey, Blakesley and others during the Exposition. Let every stockman attend without fail.

Miller Bros., Junction City, report the following sales of good Poland-China pigs: To U. S. Sidebottom, Concordia, Kas., four sows and one boar; H. S. Granger, Phillipsburg, Kas., two sows and one boar; C. M. Lewis, Canton, Kas., one boar; W. M. Skinner, Gaylord, Kas., one boar; White & Fordice, Junction City, Kas., one boar. All in the last ten days.

In the late transfers of thoroughbred stock by the American Berkshire Association, we notice the following: Sovereign Duke VI 13180, N. H. Gentry, Sedalia, Mo., to J. J. Mails, Manhattan, Kas.; Duchess XL 13182, N. H. Gentry to Mrs. Jennie K. Beckett, Sterling, Kas.; Sambo's Lassie IV 13114, G. W. Penney, Newark, Ohio, to F. M. Rooks & Co., Burlington, Kas.

The New York Tribune says the famous Holstein cow, "Echo," owned by F. C. Stevens, proprietor of Maplewood stock farm, which gave birth to male triplets March 4, died at Attica, N. Y., Saturday. Her owner refused \$25,000 for her, and was offered \$5,000 for her calf, if a male. She had the largest milk record in the world. The calves are doing well.

Phil Thripton writes the FARMER: Although the Berkshire is without doubt the oldest and purest-bred of all our domestic swine, yet, as with all others, there are among them some of doubtful purity. However useful these may be in a general way and however reluctant some parties may be to think them any less valuable than more purely-bred animals, selections from the purest and best strains should always be

preferred—strains in which there has been no attempt at the so-called improvements by crossing with other breeds. Such attempts are of no real worth, but on the contrary, a positive damage to the best interests of the swine breeding fraternity.

S. McCullough, Ottawa, writes that his Berkshires wintered well and the pigs farrowed this season are unusually good ones. Three litters of nine, eleven and thirteen respectively are very fine; two of these litters are by the imported Patentee, the winner of the first prize at the Royal show. Will also have a number by imported Lenster Duke, the winner of the grand sweepstakes at the World's Fair last month. The ad. in the FARMER is a paying investment.

Concerning cattle on the great ranges, a correspondent writes: "From North Platte, Neb., all the way out on the Union Pacific, the cattle have wintered well; west of North Platte there has been exceedingly fine weather, and the cattle are in excellent condition, and no fears or signs of anything but a good spring. Northern Idaho, Western Montana and Oregon have had the severest snow-storms and weather known for years, and reliable reports from that area say it will go hard with the cattle; but unfortunately the number of cattle on the named area is comparatively small. The weather now (February 10) and since I arrived here (Salt Lake City) has been very fine, and is so reported along this side of the mountains. Altogether the cattle have averaged well this winter on the range."

How to Be a Child Again.

Kansas Farmer:

Why can't a man be a boy again, play ball with the boys and forget that he is 40 or 50 years old and that it is not a great way now to 60 or 70? He can and he should; he would be happier and live longer. Let him go once in a while with the children on an egg hunt down to the straw stack, out to the wood pile, and in the brush. The way to feel young is to act young; the way to free the mind from an over-load of care is to go with those that are free from care and learn of them; and who so light-hearted as a merry, blithe child? Then, a game of ball with the boys, and a game of blind-man's buff with the boys and girls, and take a hand in the candy-pulling and popping corn. And now that spring is here, help them set old Speckle or old Buff, and help them count the days to intervene before the little chicks appear.

And then again help them make their little garden, plant the tiny seeds, and put out the flower and foliage plants, the petunia or phlox or verbena; or if you are one of them fellows that can't see the beauty nor the pleasure belonging to the flowering plants, if you want to be very practical, take the little fellows and help them to make a vegetable and fruit garden; it will tickle them to have an onion bed or potato patch, a row of pop-corn, a few hills of melons, a bed of strawberries, and they will be delighted until they run over, and their exuberance will open up another world to your view. You will see them watch their garden and the first bloom, the first little melon or berry will hardly be in sight until you are apprised of the fact and invited to go and see it. These things will run through the weeks and months. Your interest in their interest sharpening the keen delights of the little fellows while yourself, forgetful of the passage of time, will grow younger as they grow older, the child and the man drawn toward each other.

But you old, sober, staid fellow, if you can condescend so much as to come down to the child world, will get a great deal the most. But you will be no robber; the child's soul is full, and has enough to spare; in fact, the deeper you drink of the joys of childhood the more inexhaustible becomes the store. As we plan and speculate on the season's work, let us not forget the pleasures, the riches we are so apt to overlook—our part in the child world. E. J. HOLMAN. Leavenworth, Kas.

Old Dan had used his neighbor's fence as firewood, and was accordingly brought before the court to answer for the same. "Have you any lawyer for defence?" asked the Judge, as Dan took his place. "No, sah, I hab not," replied the negro. "Kase, yo' know, Jedge, 'tain't de fence what needs a lawyer; hit am dis po' nigger dat am in fer it. I spec' yer better 'pint one for him."

Book Notices.

Pamphlet descriptive of the Great Interior Fruit Belt and Sanitarium of Southern California sent free on application by letter or postal to L. M. Holt, editor Press and Horticulturist, Riverside, Cal.

POULTRY.—C. G. Bessey, Abilene, Kansas, has just published a really good poultry book, entitled "\$750 per year; How I Manage My Poultry." The book is a careful compilation of experience, and is prepared from a Kansas standpoint. It contains ninety-five pages. We do not know the price.

The extension of our railway system towards and into Mexico has been one of the most remarkable developments of recent years. A paper, "Along the Rio Grande," by Mr. Sylvester Baxter, which is to appear in the April Harper's, will give an entertaining sketch of that country before and during the making of the railway there, and many illustrations by W. L. Metcalf will add to its interest.

MANUAL OF AGRICULTURE, for the school, the farm, and the fireside. By Geo. B. Emerson and Chas. L. Flint. A new edition, revised by Dr. Chas. A. Goessman, Professor of Chemistry, Massachusetts Agricultural College. This book was originally prepared at the special request of the Massachusetts State Board of Agriculture, for the purpose of making a work which would be the foundation of a complete agricultural education. Its aim is to teach how we may co-operate with the great powers of nature and control them for our own purposes, making the most useful, as well as the most interesting study that can be presented to the inquiring mind, and showing what may be accomplished by judicious, thrifty and economical management. Cloth, 12mo; price, post-paid, \$1.50. Sold by Orange Judd company, 751 Broadway, New York.

AMERICAN SHORT-HORN HERD BOOK.—Volume 27 of the A. S.-H. B. is out. It comes up to July 1, 1884 and contains records of bulls from No. 53,719 to No. 61,423. The book contains nearly one thousand pages, three hundred of which are devoted to bulls, and six hundred to cows. The rest is index. The book is well printed in clear type, and is substantially bound in leather backs. Price to members, \$5.00; to others, \$7.00. The secretary is sending out a circular letter which contains a good deal of practical information relating to the history and work of the association, rules of the business, instructions concerning recording pedigrees, etc. It also advertises some new and valuable Short-horn literature. This circular will be sent to any person interested, on application by letter or in person to the secretary, J. H. Pickerell, Moutauk Block, 115 Monroe St. Chicago, Ill.

With all her other troubles—in Egypt, and Ireland, and Asia—old England has also been passing through a serious agricultural crisis, in which the ancient proverbial expression, "as good as wheat," lost its force, for the price of that commodity touched the lowest point it has reached in the life of this generation. What brought on the crisis, what were its effects, and what remedies have been proposed, are questions that concern the American almost as much as the Englishman, whether he be a producer or a consumer of wheat; and they are very ably and clearly discussed in an article by William E. Bear, editor of the Mark Lane Express, in the North American Review for April. In the same number, Charles Dudley Warner presents an interesting "Study of Prison Management," while Robert Buchanan, the English poet, discusses "Free Thought in America," T. V. Powderly, "The Army of the Discontented," and Prof. Hunt, "How to Reform English Spelling." The other articles are: "The Law's Delay," by Chief-Justice Thomas F. Hargis, and "Characteristics of Persian Poetry," by A. R. Spofford. But what will probably attract the most immediate attention in this number is the new department of "Comments," consisting of brief criticisms of articles that have appeared in the Review. Murat Halstead's political article in the March number is here discussed by three writers—a Democrat, a straight Republican, and an Independent Republican. Richard H. Stoddard comments with a good deal of feeling on Max Muller's "Buddhist Charity," and other correspondents take this pleasant

opportunity to offer a single thought where an extended article would, perhaps, find neither room nor readers.

FRANK LESLIE'S SUNDAY MAGAZINE—For April is a particularly interesting number, and he who does not find much in it to please him must be very hard to suit. It begins with the opening chapters of Farjeon's new story, "Love's Harvest," which promises to be equal to the other stories of this favorite writer. Three additional chapters of Mrs. Farmer's "What She Made of Her Life" are given, and also three of the juvenile story, "Pen's Perplexities." Adelaide C. Waldron contributes a beautiful sonnet, "An Easter Lily," and there are other fine poems. The Rev. Dr. A. A. E. Taylor has a characteristic article on "The Bad Boy as a Moral Reformer," and the Rev. Dr. T. D. Witherspoon a beautiful one on "The Alpine Horn." Mrs. Alexander's "Sisterhood of Spinners" is a pungent, though good-natured, piece of satire. The veteran Thomas Powell contributes "A Personal Reminiscence of Spohr and Mendelssohn," and Cherubini and Mercadante are the subjects of the "Sacred Musicians" series. The "Glances at Bible History" and "Christ Teaching by Parable" are continued, and both very interesting; and the venerable countenance of the Rev. Dr. Prime, a representative religious journalist, accompanies a fac simile reduction of the first page of the New York Observer, which he has so long edited. These are only a small portion of the contents, and, indeed, the whole number is exceptionally good. Published by MRS. FRANK LESLIE, 53, 55 and 57 Park Place, New York, at 25 cents a number, or \$2.50 a year, postpaid.

A doctor of some note gives the following rhythmical enumeration of the qualities of a good cow:

She's long in her face, she's fine in her horn,  
She'll quickly get fat without cake or corn;  
She's clear in her jaw, she's full in her chine,  
She's heavy in flank, and wide in her loin;  
She's broad in her ribs, and long in her rump,  
A straight and flat back, with never a hump;  
She's wide in her hips, and calm in her eye,  
She's firm in her shoulders, and thin in her thigh;  
She's light in her neck, and small in her tail,  
She's wide at the breast, and good at the pail;  
She's fine in her bone, and silky of skin,  
She's a grazer's without, and a butcher's within.

FRANK CRANE,

Formerly of the firm of A. A. Crane & Son, Osco, Ill.,

COMMISSION AGENT

—For the Sale of—

HEREFORD, POLLED ANGUS, GALLOWAYS, SHORT-HORN,

And Thoroughbred and Grade Cattle of all breeds.

Carload Lots a Specialty.

Stables, Riverview Park. Address F. P. CRANE, Stock Yards, Kansas City, Mo.

A NEW AND SUPERIOR ROUTE

—TO— NEW ORLEANS

—FOR THE— GREAT WORLD'S FAIR

This Grand Exposition was opened to the Public on DECEMBER 16th, 1884, by the

PRESIDENT OF THE UNITED STATES And will continue for six months.

—THE— MISSISSIPPI VALLEY ROUTE, —FROM—

MEMPHIS, TENN., to NEW ORLEANS, LA.,

Opens up the finest TIMBER, COTTON, SUGAR and RICE LANDS in the WORLD, and offers special attractions to PROSPECTORS and TOURISTS.

SPECIAL SCHEDULES have been arranged for the benefit of Travelers from points west of the MISSISSIPPI RIVER, with Elegant

PULLMAN PALACE SLEEPING AND DRAWING ROOM CARS

BETWEEN Kansas City and New Orleans.

ROUND TRIP TICKETS on sale at all principal points. Ask for tickets via the "MISSISSIPPI VALLEY ROUTE" (Louisville, New Orleans & Texas Railroad.)

Information furnished by JAS. S. DAVANT, General Passenger Agent, No. 11 Monroe St., MEMPHIS, TENN.

**Making Hard and Soft Soap.**

"A. C. W.," finds many receipts on soap-making, but with such differences as to make her ask from "authority," an explanation of "this mystery of soap-making, and the exact formula for the best product of hard and soft potash soap." I speak from the authority of the soap-kettle, soap-barrel and wash-tub, floor scrubbing and all other house-use of soap. A. C. W. is mistaken in asking for a formula for the best hard soap from potash. Hard soap can be made from potash, soft soap by adding salt in the kettle. Just put in handful after handful until the soft soap separates into water in the bottom, with a thick mass floating on top. Take this out, place it in the sun, cut it into long bars or cakes, and, after sufficient drying, you will get a sort of hard soap; but the cakes or bars will present a shrunken appearance, will be very much depressed in the middle, and if you rub it upon the clothes, only the outer edge of the cake will touch the cloth. You will be apt to think that your hard soap from potash is not exceedingly satisfactory, and, if you count your time materials, it will be expensive. If you had sold your ashes and grease, and bought hard soap from the store, you would have been better off financially, and much better pleased in the use of the soap. The hard soap you find at the store is made with soda instead of potash, and with some resin instead of all grease, which makes it hard and the surface smooth and agreeable to the hand, but the resin is of little or no use for cleansing purposes; resin soap is adulterated soap, the cake does not last well, the water does not become rich with soap, and the suds are too thin.

You can try it yourself. Provide five pounds of tallow, or three pounds of tallow and two pounds of resin (use any proportion of resin you please within a limit of two-fifths of the whole). Melt the tallow and resin together, let them cool to 120 deg. by thermometer, then pour into this mass slowly the lye made from one pound of caustic soda, 98 per cent. pure, and 2 1/2 pints cold water. Stir the mass very thoroughly while pouring in the lye. The aim is to intimately distribute the lye through every part of the grease. When it is well distributed, the mixture will drop from the stirrer like honey. Pour this now from the kettle into a box lined with an old cloth, to prevent from sticking. Set it in a warm place, wrap it well with blankets for forty-eight hours. Then cut it into cakes to suit. This is good, hard soap when sufficiently dried. But you may not succeed at the first trial. The first time I tried, the lye was not combined with the grease, so that when it was poured into the box, the lye ran out through the bottom of the box, and I lost it; a second trial brought good soap. I would advise you to get, or have your druggist get, caustic soda, 98 per cent. pure, at about 10 cents per pound. But do not accept any so-called concentrated lye, or other special preparation, cheaply exposed for sale. Once more, get three pounds of soda for three trials. It costs but little, and if any trial should fail, put it into the kettle on the stove a few minutes, with water added. Boil it, and you will have soda soft soap—a white jelly.

A. C. W. refers to the *Journal of Chemistry*, and its recipe of one pound of grease to one pound crude potash. I have made and used this soap. Pure tallow in small pieces and the potash, 20 pounds each, put into a barrel, and two pails of water added each day till half full; then stir daily for one week, after which fill up the barrel and stir daily till you have soap. This is very rich soap; you will see white particles in it, that appear to be undissolved grease, but they are harmless. The only trouble with this soap is, you will think after using it that you can get along with less expense and less excellent soap, for many people use half the grease, two-thirds, and so on. When you have used the barrel of soap half way down, fill up the barrel again with water, and you will still have good soap, for the lower half of any barrel of potash soft soap is stronger than the upper half, and when reduced will still make excellent soap. Now I have often thrown the materials into the barrel, and after a week taken out a small kettleful of the mixture, set it on the stove till it was well heated through, and the kitchen people did not ask for anything better. Crude potash comes from wholesale drug houses, in the shape and appearance of broken stone; it will not keep long in the open air. Handle it with gloves or paper; dissolve it in iron or stone for small amounts. I suppose it will cost about fifteen cents per pound, and a pound will make two gallons of rich soap. I prefer to use my own ashes on the potato ground, and buy the potash, thus saving the trouble of a leach. But if you have good wood ashes, and wish to use them, heat a barrel of water to boiling; set up two barrels with a piece of lime in each, fill them alternately with a scoopful of ashes and a dipper of boiling water; pack the ashes well, but be sure the water is all of it hot; add water to suit. That lye will dissolve grease first-rate; float an egg in it; if part of the shell as large as a penny floats above the liquid, it will be good. To a pailful of this, add one pound rendered grease, or its equivalent of coarse grease. If you boil it, you can make a barrel of soap in a few hours; if you make it cold, it will take a month, and the second or third time you try it your success will improve. I do not find any housewife who makes her own soap with the leach, who would part with it for any hard soap in the market; but there is no need of watching the kettle, or trying experiment; to "make the soap come."

Soap is a chemical result of pounds and gallons of grease and lye of a given strength.

Potash and tallow make a light colored soft soap. Soda and tallow make a white hard soap. If you want it for toilet purposes, perfume the mass as you stir it with a few drops of the oil of wintergreen or cinnamon. My daily paper shows an advertisement of fourteen pound cakes of "Ivory Soap" for one dollar at retail; that is about seven cents per cake. If you can buy that soap for that price you will hardly succeed in making any better article at home. The manufacture of hard soap is a skillful art; your attempt at home will be subject to primitive methods and untutored hands, so that failure and unsatisfactory result are very possible. But soft soap you can make very satisfactorily. Keep an extra barrel with potash and water in it into which to throw scraps and waste grease through the year. Your best soap barrel is one made by the cooper of straight, narrow strips of pine, well hooped with iron; have plenty of hoops, so that when one bursts the others will hold the barrel until the missing one can be replaced. If you use a wooden hooped barrel, you will find your soap on the cellar bottom some bright morning.

Now, in the wash-tub, if you wash woollens with potash soft soap, you will not like to exchange it for soda hard soap. Of course it is plain that potash is the thing for woolen, for it is found in solution on the sheep's back. If you have your potash broken fine, dissolved hot over the fire, and tallow melted and poured in, a little at a time, you can make soap in a few minutes. You ought to see them make it at the great woolen mills for cleansing wool. A barrel of splendid soap can be made in a few minutes.—*Cor. Country Gentleman.*

**Sub-Irrigation.**

The advantages of sub-irrigation, i. e., irrigation by means of a system of pipes laid from eight inches to two feet below the ground, and provided with suitable openings for the escape of the proper quantity of water have been known for years. They consist: First, in a great saving of time and labor in the application and regulation of water. Second, in a great saving of water; it is said that it saves from one-half to nine-tenths of the water used in surface irrigation. Third, it prevents the soil from baking; the soil remains moist and loose, dry at the surface, and at a nearly uniform temperature. Fourth, it checks the growth of weeds inasmuch as it leaves the surface where the weed seeds germinate in a condition unfavorable for growth.

The great cost of suitable piping has heretofore made the application of sub-irrigation almost an impossibility. It seems, however, that the expense problem has been solved to a good degree. A company with ample means has been formed in California, and branch companies have been established in other western States for the purpose of manufacturing a simple apparatus that will construct solid piping of any size out of cement and sand right where it is to be used. The drain tile machine, covered by the "Hamilton" patent makes, and lays at one operation a continuous and perfectly smooth flue or pipe in any carefully opened ditch.

In regard to the cost, the patent holders of the "Hamilton Apparatus" says: "Three men can easily make and lay from 1,200 to 1,600 feet of 2 to 2 1/2 inch pipe in ten hours, at a cost not exceeding 25 cents to 35 cents per rod, according to size, where sand is abundant and suitable cement can be had at \$4 or \$5 per barrel. Compared with the iron pipe or the clay tile, this concrete drain would cost but one-fourth or one-fifth as much, while it is claimed to be much superior on account of the fact that it is continuous and does not permit, like the tile, the accumulation of sediments of imperfect joints."

The fact is well known that cement is a very durable material for such purposes, and there is no reason why such pipes can not be expected to remain intact for ages. Of course, time alone can prove what is now simply asserted by the enthusiastic advocate of sub-irrigation.

A large grape-grower of Yolo, California, writes the following testimonial on the subject: "I have now laid about 10 miles of main concrete 12 inch pipe, and about 300 miles of distributing pipes of different sizes made of the same material. These pipes are laid about 30 inches below the surface, completely out of the way of cultivation. The main and distributing pipes are connected and regulated by plugs so that the water can be turned out of the water pipes into the distributing at will, at any point desired. I have laid pipe in the last two years; after it had been in one year I had occasion to cut many hundreds of distributing pipes in order to put in more mains, and did not find one the least out of order. I was so well pleased with the result that I have put down pipes on 140 acres addi-

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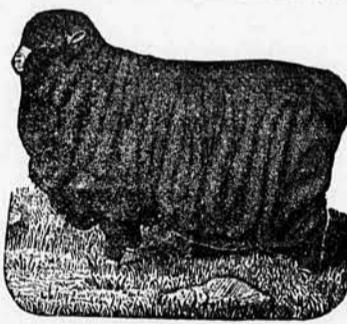
You Should Always Buy Our Kansas Grown Trees. They Give Satisfaction.

tional." There are many sandy valleys and bottoms along the large streams in our State that will ultimately resort to irrigation in order to grow larger and surer crops. If the concrete pipe is what it is claimed to be thousands of miles will be laid in the near future in Kansas.—*Prof. Walters.*

**Keeping Hams Through the Summer.**

It is difficult to guard hams from flies through the summer, however well cured and smoked. The smoke-house, if well made, preserves them, and this is the more common place of deposit with those who smoke their own hams. But multitudes have on hand a season's supply of hams and shoulders. They keep much better in a dry atmosphere. If sugar-cured hams are purchased, the cloth that covers them is sufficient protection against insects. If the hams are home-cured, they can be covered with cloth at small expense, or even with a bag of stiff paper tied tight at the top around the string by which they are suspended. If hung in a dry, cool place, they will not mould, and will always be on hand for the staple of a hearty meal, in any emergency of the family. Farmers generally make their own meat, and cure it, and with a good recipe for curing secure better hams than they can purchase, and at less cost. It pays to keep the larder well stocked with the best.

The latest thing in clocks comes from Russia. It is a little time-piece about eight inches high, on a base five inches in diameter and covered with a glass globe. All the works are plainly exposed. The pendulum is a solid brass wheel, supported at the center, or hub, by a slender wire. It does not swing, but revolves from left to right and right to left. Being a 400-day clock, the winding of it is a small item. It will not vary five minutes in 400 days. No temperature affects it.



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The Home Circle.

Things That Never Die.

The pure, the bright, the beautiful, That stirred our hearts in youth, The impulse of a worldless prayer, The dream of love and truth, The longing after something lost, The spirit's yearning cry, The striving after better hopes— These things shall never die.

The timid hand stretched forth to aid A brother in his need, The kindly word in grief's dark hour, That proves a friend indeed; The plea for mercy, softly breathed, When justice threatens nigh; The sorrowings of a contrite heart— These things shall never die.

Let nothing pass, for every hand Must find some work to do; Lose not a chance to waken love, Be firm and just and true; So shall a light that cannot fade Beam on thee from on high, And angel voices say to thee, "These things can never die."

Alone, upon a gray waste gleams a sail; And there, with lion heart in heaving breast, A Spanish sailor, clad in burnished mail, Like some bronze statue, looks toward the west.

A vessel's prow the drifting seaweeds part; A far-off palm tree waves a leafy hand; A mighty thrill, like fire, leaps in each heart, As sailors in the lookout echo "land!" —The Current.

Make God thy shield! Who else can shield thee in the way? And stay thyself on Him! Whom wilt thou make thy stay? The malice of the world befriends the sons of God, And foes that hinder thee, advance thee on the road. —Wisdom of the Brahmins.

What Women are Doing.

Some facts concerning the Ladies' Missionary Society in connection with Paxico church, two miles from Newberry, Wabaunsee county, Kansas:

It having been thought desirable to establish some sort of church work which might likewise partake of the social character, a few of the ladies of the Methodist and Congregational combined churches met April, 1884, in Paxico school house to discuss the subject. There the Ladies' Missionary Society was organized, and among others the following rules laid down:

(1.) That all Christian women be allowed to become members on the payment of 50 cents; (2) that the meetings should open or close with singing and prayer; (3) that they be held monthly in turns at the different members' houses and partake largely of the social element; (4) that the proceeds be divided equally between the two communities; (5) that the officers for the first year be: President, Mrs. William Baker; Vice President, Mrs. Joseph Baker; Secretary, Mrs. Sykes; Treasurer, Mrs. A. E. True; (6) that sewing be done at the meetings and the members partake of one cold, plain meal, in summer, supper; in winter, dinner. Meetings have been held regularly during the year and members entertained by the following ladies: Mrs. Parker Lieurance, Mrs. Gilbert Stewart, Mrs. Joseph Baker, Mrs. Page Peck, Mrs. George Finney (twice), Mrs. William Baker, Mrs. Hiram Lieurance, Mrs. John Crossley, Mrs. Guiles (twice), Mrs. Thomas Finney.

It has been decided to have a fair and supper on Good Friday, April 3, 1885, the fair to commence soon after noon in the Paxico school house, with free admission. The supper in the evening, adults 20 cents, children 10 cents. The supper will be provided by the members and friends, all of whom are invited to help either in furnishing provisions for the supper, salable articles for the fair, or by lending their presence on Good Friday at Paxico school house with all the young folks and old folks they can muster. R. B. C.

Tidies or covers for stands that are made of ribbons and lace combined, may be finished with antique lace around the edge, and between each scallop or point a small silk tassel may be put, or tassels made of crewel with the crewel picked out with a needle so that it looks fluffy.

Panels of satin now have, instead of a plain band of plush across the bottom a scalloped band, one large round one in the center, and a half scallop at each side of it. The band across the top is plain.

How to Make Household Duties Pleasant.

A paper read by Mrs. M. D. Morse, at the Farmers' Institute held at Ellinwood, March 13, 1885.

Who said they were not pleasant? Some one surely has said this, else why did the person who prepared this programme put me down for a paper on this subject? Well, we will for the time, at least, assume they are not pleasant, and offer a few suggestions that may answer the query how to make them so. Now, we all have (as the school examiners say,) "theory and practice" as housekeepers, probably corresponding well with those of other professional people, if I am allowed to use that expression. Systematic labor may be put down as one of the helps. Let us know what we are going to do each day. On Saturday lay out our plans for the next week's work. Don't plan too large, or you may be disappointed and so discouraged. It would be better far, could we in the week accomplish a little more than the work planned, than to fail in doing more than two thirds of it. Then in planning, remember, you may be interrupted by a teething baby, or that much dreaded visitor, croup, and when you are wearied with watching, anxiety and loss of sleep, you find yourself incapable of carrying out your plans, do not be fretted, but the next week try again. Plan the execution of your work. Let the head do its share to save the needless exercise. When it is necessary to go to the cellar for anything, think of as many things that you want from there, making your head save your feet many steps. Old King Solomon said "a contented mind is a continual feast," and, as all admit, there is a pleasure in feasting; so, if we would have a continuous pleasure, be contented with your lot as housekeeper. You assumed those duties of your will. In this age, day and country, no woman is compelled to say yes, when a man asks you to share his heart and home. Some may argue contentment impossible, but I hardly think so. If more persons tried to encourage the spirit of contentment and less breath was spent in denouncing domestic work as "drudgery," and more time devoted to devising methods for lightening labor for themselves and others, it would be far better. I am willing to admit that in many homes, and particularly the home of a farmer, the duties are often unpleasant, because of so many and arduous the task. Help is so often insufficient as well as inefficient, that the cry is sometimes wrung out, "O! I am so tired of it all." But the only way is to strive hard after the right spirit; do the very best you can, discharge as many duties as possible, draw help from all the members of the household; arrange duties for each one. That certainly is your legitimate work. Children do not know how to help, unless taught, and will not think to offer help unless asked. There is an old saying, "What is everybody's business is nobody's business." I think in the household, what is every one's work usually becomes mother's work, and let each child have his or her share. Call to your aid all the improved methods for performing labor, sewing and washing-machines, little improvements for the pantry and stove. Read the papers, gather all the information you can from the experience of others. Read, I say, though the baby's dress have one less tack, or your own one less ruffle or plait. Read not only the Dairyman, Farm Journal, Woman's Department in other papers, but read many things scientific, historic and political, if you have the patience, in these corrupt times. Yes, keep yourself posted, for by and by when we are allowed our franchise, you will want to vote intelligently, and will not wish to "post up" or "crum" as the college boys do for examination. Never pass a piece of poetry without glancing it over to see if it is worth reading; if good, read it, and you will have the sentiment and many of the lines will be with you when kneading the bread or washing the dishes. Once a housekeeper said to me that she "never felt so degraded as when she was washing dishes, it seemed such low work." I had never thought of it in that way, and it gave me a new idea. But I now think had that woman's mind been full of beautiful thoughts, she would not have been dwelling on what her hands were doing and lamenting upon her lot in life. When you see a new recipe for cooking some favorite food or a new method of performing a certain kind of labor, try it. If better than the old way, adopt it; if not, reject it. Don't be too sensitive about what people think of new departures. But I think I hear some one say, "How can I find time to read with all I have to do?" Just take time, my sister—a few minutes when you are resting, or rocking the baby, or waiting for the irons to cool, or for the men to come to dinner. I have known women who had, say half an hour each day, set apart for reading, and attended to that as regularly as any duty. One thing that will make cooking a pleasure is to know that your husband thinks your bread is lighter, your butter sweeter, your pudding, cake and pastry better, than what he eats elsewhere—almost "as good as mother's." Take pride in the smallest details of home work. Do whatever your hands find to do with your might as unto the Lord. Teach your girls by "precept and example" that woman's "sphere" is the home, and house work is not drudgery. Not that I would limit her work at simple household duties; but if it is not yours to keep the house, then whose is it? True, she has many places to fill, and a true woman's talents are many and varied. Some are born housekeepers, and take to it as naturally as others do to music, painting, sewing, writing, teaching or finance; but then the household duties must be looked after by

some one. Even though the labor be performed by others, there must be a head. If you find you cannot get along with your household work, and in spite of your most painstaking efforts, and do not enjoy or make a success of it, and really have not what the New Englanders used to call a "faculty for it," and there is something else you can do and do with profit, I think you had better do the other, and try and fill your place in the household and kitchen work with some one to whom the work will be easier and who will willingly do it. Now I find I have used up a good deal of paper, and undoubtedly a vast amount of your patience and have not looked at but one phase of the question. There is another, and now a few words to the husbands and fathers. If you wish household duties to be pleasant, bear your share of them—see to it that there are as many helps in-doors as out. If it takes one or two men beside yourself to "run the farm," then certainly you cannot expect one woman (even with the children's help) to do all the in-door work. Do not expect her to be cook, seamstress, washer-woman, gardener, chamber-maid, nurse, dish-washer and milk-maid, beside mother, companion and friend, and expect that she will find pleasure in all these cares without your aid and encouragement. See to it that she has as many of the latest improvements for lightening labor as you have. Don't buy a sulky-plow for yourself, and let her sew as our grandmother's did, or a new mowing machine, and think the old-fashioned tub and board are good enough for her, and don't forget about the wringer. If you are able to have all the latest improved farm machinery, and she wants a gasoline stove, and is not afraid of it, do not frown and talk hard times and the low price of wheat, but let her have it, and in July and August on ironing days she will not have so red a face or a faint worn-out tone of voice when the family ironing is done. And above all things, if she does her work well, let her know you think so, for kind and appreciative words are like magic ointment to the tired body and more tired soul. Some one has written a tale in verse which I beg to read and I am done:

WHY GIRLS WILL WED.

She rose at the early dawn-ak With a sick and aching head, And she sat—that cross little woman—"I wonder why girls will wed? They wouldn't I'm sure if they reckoned The things that a wife must bear; The never-don't work of a household, The never-don't mother care."

"Six dozen pieces to wash to-day, And the children must go to school, And every one knows on washing-days Baby is cross as a rule; And Bridget is not at the work yet, (Oh dear how my head now aches!) Yet I shall have the dinner to cook, And all the beds to make."

But as soon as breakfast is ready, Father comes in from the yard; He kissed the sick little mother, "Was sure the work was hard; Be said to the noisy boys: "Be still! Your mother is not well to day." And when he bade her "good-bye," He could "kiss the pain away."

And the coffee or kiss—which was it?—Healed like a magical charm; The spirit of oilment gladness Was everywhere on the farm. The father worked hard at the plowing, The mother for a t'rain pater, And Bridget dwelt with her washing, The e wasn't a drop of rain.

The baking and cleaning was over, When the boys came home from school, Baby forgot it was washing day, And he savantly broke his rule; And at night he house was clean and bright, "There was not a thing amiss; 'Tis only wife," the father thought, "Would do so much for a kiss."

And the wife sitting down in the firelight, The baby asleep at her side, Her husband chatting, and watching her With a husband's loving pride, Thought much of her full and pleasant home, Of her children asleep in bed, And said with a sweet contented laugh, "No wonder that girls will wed!"

House Notes.

Beautiful tidies are made by painting flowers in bright colors on black satin; trim the edge of the tidies with white lace.

A new way to cook breakfast bacon is to soak thin slices in milk to cover them fifteen minutes. Dip in flour and fry in bacon fat.

The appearance of a pudding that is boiled in a bag is improved if after taking it out on the platter you sift powdered sugar over it.

Fried lima beans are sometimes improved in flavor if in addition to the butter, pepper and salt usually added, a little parsley rubbed very fine is put in; a tablespoonful to a quart of beans is the proper proportion.

Delicious filling for a pie is made by stewing some prunes until they are very soft, remove the stones, sweeten to your taste, and add, for one pie, the well-beaten whites of two eggs; beat with the prunes until thoroughly mixed. Bake with two crusts, or if you can get it, use whipped cream in place of the upper crust.

When roasting lamb or fowls, if you do not like the flavor given by thin slices of salt pork or of bacon, which are usually put over them, take some hard butter, roll it in flour, and separate it into small lumps and lay here and there on the meat. This will give richness and flavor to the liquid with which you baste them.

"How may the flavor of soup stock be varied?" is a question often asked. There are almost unnumbered ways by which this may be done. The addition of a little ham, whole spices, bouquets of herbs, slices of lemon, celery and carrot seed, some sausage

of fine flavor, catsup, Chili sauce, curry powder, and all or any vegetables may be used.

The children of every household should be early accustomed to the use of the napkin. A little prattler once said: "I like people to come to tea, because then I get a pretty white cloth to keep my pinafore clean." The child had an innate sense of neatness, which had not been properly encouraged. I have seen very good housekeepers rummage a drawer, after visitors were seated at tea, to find a napkin, and I have thought, "If some of the superfluous cake had been omitted and a little more attention paid to the minor appointments, it would be more comfortable, and would not add a whit more to the labor of tea giving," for the real comfort of life is not altogether in what we shall eat, but in many dainty little accompaniments of eating.—Annie L. Jack.

It is not as generally understood as it should be that oysters have medicinal qualities of a high order. They are not only nutritious, but wholesome, especially in cases of indigestion. It is said "there is no other alimentary substance, not even excepting bread, that does not produce indigestion under certain circumstances; but oysters never." Oyster juice promotes digestion. By taking oysters daily, indigestion, supposed to be almost incurable, has been cured; in fact, they are to be regarded as one of the most healthful articles of food known to man. Invalids who have found all other kinds of food disagree with them frequently discover in the oyster the required aliment. Raw oysters are highly recommended for hoarseness. Many of the leading vocalists use them regularly before concerts and operas; but their strongest recommendation is the remarkably wholesome influence exerted upon the digestive organs.

A Deceived Woman

Is the lady who uses cosmetics, face lotions, white lead, bismuth, powders, arsenic, etc., in the belief of enriching and beautifying the complexion. It is but temporary and ultimately destroys the skin beyond the power of nature to restore. Stop it! Stop it now and use only Dr. Harter's Iron Tonic, which imparts the vigor and loveliness of youth.

An Indian, on being asked what he was doing now, answered: "Well, I hunt some, fish some and preach some." "Where do you preach?" "Up on the creek bottom." "How much do they give you?" "Bout fifty dollars a year." "That's mighty poor pay, isn't it?" "Well, but it's mighty poor preach."

Consumptives, call on your druggist and get a free Trial Bottle of Dr. King's New Discovery.

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## The Young Folks.

### Wide Awake and Fast Asleep.

A bright summer day came out of the East,  
And a bright little lad was he;  
His lips were red from a strawberry feast,  
And his eyes were blue as the sea.  
His yellow hair was blown by the breeze,  
Like grass in a windy place;  
He had torn his jacket in climbing trees,  
And he laughed all over his face.

He danced in the elm, on the leafy spray  
Where the nest of the blue bird swings,  
Till the birdies had winked the sleep away  
All under their painted wings.  
He shook the stem of the lilies tall,  
While they nodded in high surprise,  
And rubbed with their fingers white and small  
The dream from their golden eyes.

The daisy hurried to wash her face  
In a drop of the silver dew,  
And every leaf in its lofty place  
The kiss of the sunshine knew.  
The squirrel chattered and combed his tail,  
That curls up over his spine,  
And each red clover turned almost pale  
When the village clock struck nine.

For two little boys, in two little beds,  
Lay sleeping the morning long,  
Tho' the sun shone in on their tangled heads,  
And the birds had ended their song.  
"Oh, dear! oh, dear!" said the summer day,  
"What sleepy small boys I see!  
I wish, I wish they would wake and play  
With a bright little day like me."  
—The Independent.

### About Florida Fruits.

Our younger readers may be interested in learning something about the kinds of fruit grown in the South where apples are as much of a rarity as oranges are in Kansas. We have a letter from H. E. Van Deman, a Kansas man, now at New Orleans, describing the Florida fruit exhibit. We make a few extracts:

There were eighty-eight named varieties of oranges on the tables from Florida. To the general orange eater, an orange is simply an orange; but there is much difference in the size, shape and quality of the varieties. Some are quite mild and sweet, and others tart in flavor. But juiciness, richness of flavor, and exceedingly thin skin, we found to be the general rule. There are being originated new improved seedling varieties, just as with our fruits in the North. Some kinds are very large, but these are not always the best in quality. Some are quite dark colored, and some light, but there seems to be no rule by which quality can be told by outward appearance. However, the thinner-skinned varieties were usually the best. For the benefit of those who may possibly be interested in knowledge, I will name some of the kinds that graded the highest upon our scale—Exquisite, Maltese Blood, which is slightly red inside; Halfax Queen, Cunningham Premium, Wild Sweet, Washington Navel, Pineapple, and I might name many other kinds equally as good. It is true that as yet the people in the orange-growing districts pay very little attention to budding or grafting and thus propagating their best varieties, but depend almost entirely upon seedlings, just as used to be done with apple orchards in the North fifty years ago. But great improvement is being made now in this direction, and the time is coming when orange boxes will bear the name of the variety, as apple barrels do with us.

If any one thinks that lemons will not grow in Florida, he is greatly mistaken. There are fifteen varieties on exhibition, and all would do credit to Sicily or any other lemon-growing country. Some are very large and will weigh fully a pound, but are not so good as the smaller ones. After we had cut and examined the different kinds, we took them to a lemonade stand, and had them tried there. The proprietors spoke highly of them, and indeed the lemonade was the best kind.

Limes are almost like small lemons, but they have a rather peculiar taste, which is very pleasant, too, when made into a drink like lemonade. In shape they differ by being more nearly round than lemons. Their productiveness is remarkable, and lime culture is another of the growing industries of Florida. There are some newly-introduced varieties that are much larger than the old seedlings. It may not be generally known that citric acid is mostly made from limes.

The shaddock is about the largest of the citrus fruits, as some shown here weigh almost ten pounds. It seems quite impossible

for small trees to hold such a weight upon their branches, and I am told they have to be propped to keep them from breaking down. The varieties vary as do other fruits. The largest seen here is the Rose shaddock, which is of a pink color inside. All of them are quite sour and unpleasant to eat, except when used with sugar and made into marmalade, or some other preserve.

Almost every one knows of the citron in the form of a dried preserve, sold at the confectioners to be used in making fruit-cake and the like. The fruit grows on a tree much like the orange, but is fully as large as the shaddock. All the varieties I have seen are about the shape of a common muskmelon, and when cut open look much the same. The outer fleshy rind is over an inch thick, and has a sweetish taste. It is this that is preserved and known as the citron of commerce. The external appearance of the fruit is wrinkled or rough, and the color about like the orange.

Another very curious little fruit is the kumquat. It is about the size and shape of a dove's egg, of an orange color, and the inside flesh is sweet and pleasantly flavored. It is used for preserving whole, as we do little tomatoes.

Grape fruit is another of the citrus family and much like the shaddock in appearance, being smooth and of a yellow color, but not so large. The fruit looks much like large oranges of a very light color. It gets the name grape fruit from the habit of hanging in great clusters on the tree. Just now it is sour and rather acid, but becomes very good eating late in the season, after oranges are gone.

There are many other fruits grown in Florida, besides those of the citrus family, chief among which is the pineapple. This does very well in a good part of the State, as the samples on exhibition attest. There are five distinct varieties, which vary in color, and quality, too. The fruit is borne singly, on the top of a stalk less than two feet high, and not on a tree as many suppose. The plants are grown in rows like cabbages, and with as little trouble. They bear for about four years without replanting.

The guava is a tree fruit, from which is made the famous guava jelly that sells the world over at a high price. It is very fragrant, and tastes like a strawberry and a May-apple at the same time. Eaten with cream and a very little sugar, it is said to be one of the finest desserts known.

There were two varieties of bananas shown which, although not as fine as those of the West Indies or Central America, are quite good. A large cluster of coconuts also graced the tables. Another very delicious little fruit is called Japan plum, but is no relation to the plum family. The tree is, however, very handsome, and will almost withstand the severity of our Kansas climate.

### The Squirrel and Her Babies.

Old citizens of Toledo distinctly remember when there was an emigration of squirrels in this vicinity. One day a gentleman was on the bank of the Ten-Mile creek when there was one squirrel that exhibited such motherly care and affection for her two little ones as to prove a most interesting sight. She reached the bank of the creek where a crossing was to be made. The little squirrels were quite timid about going near the water, but the mother coaxed them until they seemed to be satisfied to do as she wished. She ran along the shore, and finding a piece of bark about a foot long and six inches wide, dragged it to the water's edge and pushed it into the water so that only a small part of one end of the bark was resting on the shore. She then induced her little ones to get on the bark, and they at once cuddled closely together, when the old squirrel pushed the bark and its load into the stream, and, taking one end of the bark in her teeth, pushed it ahead of her until the opposite bank was reached.

### The Dean's Irreverent Bird.

While Dean Stanley was a canon at Canterbury, a gentleman, who was invited to breakfast, found all the servants assembled in the garden gazing up at a laburnum in which a parrot was at large. At that moment the Canon came out. The parrot looked down at him and said in a low, but distinct voice, exactly like Stanley's: "Let us pray!" He was captured by the help of a fishing rod.

A gray parrot was stationed in a nursery, where his greatest delight was to see the baby bathed. An infantile complaint seized the child, and the parrot was removed to the kitchen. There, after a time, he set up a terrible cry, "The baby! The dear baby!" All the family rushed down, to find the parrot in the wildest excitement, watching the roasting of a sucking pig.

### Subduing an Elephant.

It took a dozen men five days of last week to break the spirit of a vicious elephant in the winter quarters of Adam Forepaugh's menagerie. Early in February one of Mr. Forepaugh's European agents bought four elephants and shipped them to this country. The huge beasts reached New York two weeks ago, and were at once transferred to Philadelphia. Three were docile, but the other, Ajax, is a tusker, eight feet high and vicious.

On reaching this city he became sullen, but Jack Forepaugh, who has charge of the winter quarters, believing that the brute would become good natured in a day or two, hitched him to a post and locked him up for the night. A few hours later Ajax broke his chains, butted down the iron-bound door of his room, and rushed into an apartment in which a dozen of the more peaceable elephants live. He attacked a performing elephant named Bazie and a desperate fight began. Five or six of the small elephants broke loose. Their frightened cries soon excited every animal in the buildings, and the air was filled with roars that aroused the neighborhood. The night keepers were afraid to attempt to separate Ajax and Bazie, who were trumpeting and charging at each other with great fury. When their huge bodies came together at the end of every rush the shock could be felt throughout the place.

Jack Forepaugh was sent for, but before he arrived the watchman discovered that Ajax and Bazie were so engaged with each other that they did not heed what was going on about them. The doors were opened, and all the elephants except the fighters were driven out. By the time this was accomplished Mr. Forepaugh arrived. He has had thirty years' experience with wild animals and stands no more in fear of an elephant than an ordinary person does of a dog. Grasping an elephant hook—a spike and a hook on a stout handle—he ran between the furious beasts and ordered Bazie back. Bazie obeyed, but the blood of the new elephant was up and he charged on the man, who eluded him and fastened the hook in the beast's ear. Ajax turned and bore down upon him. The trainer stabbed him with the spike and dodged behind a post. Ajax butted the post down as though it was a reed. The other men ran to Mr. Forepaugh's assistance and assailed the elephant from so many points that he paused irresolute. During that pause a chain was passed about one of his hind legs and fastened to an anchored ring. This rendered him almost helpless. His other legs were hobbled and he was left alone until daylight, Bazie being driven off to another part of the quarters.

On Tuesday morning Ajax was as sullen and vicious as ever. Bad elephants sometimes remain in this mood for days, and no man can approach them with safety. Until such an elephant's spirit is broken, he is worse than useless. Steps were at once taken to convince Ajax that he must obey his keepers. Of the thirty-six elephants under Forepaugh's care none was as hard to subdue as Ajax.

The work of conquering the proud spirit of Ajax began at 9 o'clock on Tuesday morning, and ended shortly before noon yesterday. Beating has no effect upon a mad elephant. It only renders him more stubborn and wicked. The breaker's only hope is to convince such an animal that he is powerless against man. That accomplished the beast becomes as docile as elephants ever are. On Tuesday morning four hawsers were passed through immense pulleys attached to beams under the roof. Then a set of harness, shaped something like a monster shawl strap, was fastened about Ajax's defiant body. The leather straps, which were three-ply thick, covered small chains. All the leather plates were copper riveted and a foot wide. Ajax looked as though he were in armor after being encased. Three hours were spent in getting the harness on him, and during the job he slightly injured two of the keepers.

Through iron rings, supported by great chains, were passed the hawsers. Then a dozen men grasped two of the lines of rope that passed through pulleys, and before Ajax knew it his hind feet were six feet above the ground, and he stood on his front ones in the most approved performing elephant style. For a moment he was paralyzed with astonishment, but surprise gave place to fury when he appreciated the ridiculous posture he was in. He surged and trumpeted and flapped his ears, but all to no purpose.

When his struggles subsided some of the men ran off with the front ropes, and in a jiffy Ajax's body was suspended in the air. He made the most frantic efforts to tear the belting off with his trunk, but the chains between his fore legs and around his shoulders prevented it. There the monster brute hung as helpless as an infant. He was free to kick and plunge and butt the air as much as he pleased. From time to time he was lowered, so that he might rest his legs, but none of the men were allowed to approach or worry him. In the evening he was lowered and fed, and allowed to spend the night on the ground, thinking over the indignities that had been put upon him.

After his breakfast on the following morning he was trussed up as before. He resisted, but his efforts were unavailing. He was a stout-spirited brute, however, and the second day's punishment only seemed to increase his rage. When he came down to supper he was the maddest elephant that ever trumpeted in Forepaugh's winter quarters. At the sight of the harness on Wednesday he became greatly excited. Mr. Forepaugh said he was "coming to his senses." This, however, did not prevent

him from being hoisted up again. He surged about less in his comfortable swing on Thursday, but otherwise he was as stubborn and dangerous as ever. An anchor was sunk five feet in the ground and covered with earth in another part of the quarters. Only a ring was exposed. Ajax's fore-legs were hitched to the ring on Friday morning. Ropes were attached to his hind legs, which were then drawn out, leaving him "spread-eagled" on his stomach on straw.

Jack Forepaugh walked over Ajax's prostrate body every few minutes. The elephant was let up and thrown down several times during the day. After three or four hours' experience of this kind Ajax became meeker, and he was quite dejected when, in the evening, he was unchained, and ordered to stand up. He was hobbled and thrown down on Saturday morning, and when his body touched the ground he cried out, and tears trickled down his trunk. He was conquered. The chains were removed at once, and he got up quietly. At the word of command he walked into the room he had broken out of on Monday night, and was as meek as a sheep. Next week he will begin the training necessary before he appears in public.—Philadelphia Times.

The removal of Prof. Sanborn of N. H., after being pronounced incurable by a score of physicians, from Las Vegas, N. M., to his home, was effected by administering Dr. Harter's Iron Tonic, which has restored him to his former good health.

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The new Road law enacted last session makes the township officers a board of road commissioners who have charge of the public roads in the township. Work is done by contract or under overseers appointed by the trustee and paid for out of money raised by taxation.

A committee of five senators is appointed to examine into the operation of laws of the several States passed to regulate the business and compensation of railroads. They are charged, also, with the duty of further studying the general subject of inter-state transportation.

Among the good things done by the last legislature was the passing of a law establishing a Reformatory institution where persons between the ages of sixteen and twenty-five years who are convicted of crime may be sent by direction of the court. Persons confined in the penitentiary may be changed to the Reformatory on recommendation of the Board of Pardons.

If there are any persons in the country that supposed President Cleveland would restore the simplicity of the Jeffersonian period, they will soon learn better. The first State reception, given to the diplomatic corps, the judiciary, the army and the senate and house, was reported as one of the most brilliant affairs of the kind ever held in the White House. The President, assisted by Miss Cleveland, Mrs. Hoyt, Miss Bayard, Mrs. Manning, Mrs. Endicott, Mrs. Whitney, Mrs. Vilas and Mrs. Lamont, received the guests in the Blue room.

The fifth annual shearing of the Central Kansas Wool Growers Association will be held in the opera house, Russell, Kansas, on Tuesday and Wednesday, April 14 and 15. No premiums will be given on sheep, but, as an inducement to shearers, five premiums will be awarded to the best operators as follows: 1st, \$10; 2d, \$8; 3d, \$6; 4th, \$4; 5th, \$2. Arrangements will be made for the accommodation of sheep, and it is expected that reduced rates will be obtained of the railroad. The first annual ball of the association will be held on the evening of the 15th.

The *Knight and Soldier* is a monthly paper devoted to the interests of Knights of Honor and the Grand Army of the Republic and their several auxiliary societies—the Woman's Relief Corps, Sons of Veterans, and Knights and Ladies of Honor in Kansas. It is an entertaining, clean, well printed paper, containing matter of special interest to a great many persons in the State. The paper contains four pages of six columns to the page and is sold at 50 cents a year. Published by M. O. Frost & Son, 273 Kansas Avenue, Topeka. We know the publishers personally, and know they get up a good paper.

## KANSAS AND HER WEALTH.

Fourth Biennial Report of the State Board of Agriculture, Covering the Years 1883 and 1884.

The biennial report of the Kansas State Board of Agriculture for the years 1883 and 1884 has just been issued and delivered to the public. It is a volume of 713 pages, and embraces many topics of interest concerning population, wealth, agriculture, manufacture, mineral resources, churches, schools, etc., that will be of value both to the citizens of Kansas and those persons in the east that intend to become residents.

The secretary, in his introduction to the volume, speaking of the progress in wealth and agriculture during the last biennial period, says that "During the biennial period just past, nearly 2,000,000 additional acres have been put in cultivation. The principal field crops, corn, wheat, oats and grass, have received each a proportionate amount of this increase in acreage, the most notable addition being to the winter wheat area, which increased from 1,465,735 acres in 1882, to 2,151,868 acres in 1884.

The area of grass made up of the tame grasses and prairie meadow under fence, increased in the two years nearly 1,000,000 acres. The westward march of the tame grasses may be said to have commenced within the period covered by this volume. Fields of timothy, clover, orchard grass, blue grass and many other kinds are now to be found in the central counties, and even beyond, while such fields were rarely met with two years ago. Experiments as to the kinds best adapted to the various portions of the State are being prosecuted with vigor and intelligence, and the question may reach solution within a very few seasons. The results of farming operations in Kansas for the past two years, as will be learned by consulting the pages of this report, have definitely settled any doubts as to the entire fitness of the eastern half of the State to the successful prosecution of agriculture in all its branches. The debatable ground of ten years ago is now producing crops that have placed Kansas among the first great agricultural States in the Union, and the soil that ten years ago was believed to the satisfaction of many to be unfit for diversified farming, is now producing average yields that largely exceed the yields of any other portion of the country.

The numbers of the various kinds of live stock have increased largely during the biennial period, the interest keeping abreast with the advancement made in agriculture. The adaptability of Kansas to the successful prosecution of stock raising has been amply demonstrated, and the many millions of dollars embarked in the business in this State indicates the faith of our people in the safety and profitability of the investment. The per cent. of mortality from diseases for both years was slight, and compares favorably with other sections of the country."

Each county is treated separately, in alphabetical order, a sectional map in colors accompanying each county sketch. These maps are corrected to December 31, 1884, and show municipal township boundaries, location of school houses and postoffices, streams and railway lines. For the first time since sectional county maps have become a feature of the biennial reports, railroad lines are correctly located, the engineer of each road furnishing the correct location for the map.

Following the matter relating to counties is a sketch of the progress and development of the State since its organization, in population, wealth and agriculture, illustrated with colored

diagrams. This is a very interesting and instructive chapter of twenty-six pages, containing sixteen colored diagrams, accompanied by explanatory letter press. While diagrams have been used in previous reports of the board in illustrating the growth of wealth and agriculture, there has never been so complete a treatment of the subject as is found in this portion of the volume. The wonderful story of Kansas, its rapid strides toward prominence among the States, is better told in these object lessons, occupying a few pages, than if hundreds of pages were covered with statistical tables and letter press. This department of the report will be highly prized by the citizens of Kansas, and by all those persons seeking for information as to the resources and capabilities of the State.

Four of the officers of the board by appointment made reports for this volume, Prof. O. St. John, the geologist, furnishing a paper on "Artesian Wells," a subject much agitated in Kansas at present; Prof. F. H. Snow, entomologist, an illustrated paper on "Insects Injurious to Wheat," remarks and observations concerning the Hessian fly, occupying the most prominent place in the paper; Prof. J. T. Lovell, meteorologist, on the "Meteorology of Kansas," being a record of rainfall and barometer reading for the past two years at various stations in the State; and Hon. E. B. Cowgill, sorghum commissioner, on "The Sorghum Industry of Kansas in 1884." This paper is founded upon recent investigations as to the manufacture of sugar from the northern cane, and at this time is of peculiar interest to Kansas farmers.

Following the reports of officers by appointment are papers from Dr. A. A. Holcombe, the State Veterinary surgeon; Hon. W. S. Gile, State Fish commissioner; Hon. F. P. Baker, special agent of the division of forestry, U. S. department of agriculture, and Prof. E. M. Shelton, professor of agriculture of the State Agricultural college. These papers were read by their authors, at the annual meeting of the board held in January last, and are well worth preservation in this report of the board.

The "Schools of Kansas" are well and fully treated, showing the entire educational system of Kansas, including the University and College.

The report is by far the most complete and valuable ever issued by the State Board of Agriculture, and will be much sought after by citizens of the State as a reference book. The legislature before it adjourned ordered an extra edition of 10,000 volumes, and Major Sims, the secretary, will take pleasure in forwarding copies as long as the edition holds out.

General Barrios, president of Guatemala, has given notice to the other States of Central America—Honduras, Nicaragua, San Salvador and Costa Rica, that he proposes to consolidate them into one government. Honduras is willing, but the other three States are not. Mexico has given notice to General Barrios that his conduct amounts to a threatened act of war and Mexico will not suffer him to proceed, and the United States government has given him notice that he may organize peaceably as much as he wants to and can, but he must not undertake forcible measures. A couple of naval ships were sent down there last week to look after things.

When any of our readers want fine cards for special occasions, as for holidays, birthdays, weddings, and the like, and do not know where to obtain them, write to L. Prang & Co., Boston, Mass., who make this kind of work a specialty. The FARMER recommends them.

## Sheds Compared With Barns.

Whether the old fashioned three-story barn of Pennsylvania and New York is the best thing in that line for Kansas may well be doubted. Shelter for stock is necessary if we would have healthy, vigorous animals, and if we would make profits on raising stock; but that does not necessarily imply that we must have expensive barns. A stable ought to be warm in winter and cool in summer. Can this not be had without digging out large excavations and building heavy walls and placing on them costly superstructures?

This subject is well worth the careful study of every farmer. A great many farmers are getting along as best they can without any shelter because they think they must spend about as much as their farm is worth in order to build such a barn as they have been taught to believe is necessary to shelter stock and at the same time have convenience in feeding. It is known by all persons who have tested it that a one story house is the best. All the work is done on the same level. There are no stairs to climb every time it is necessary to go to another room. The same principle—that of convenience, applies in case of barns. Where fodder and straw are cut in large quantities, it is better to have the cutter raised a few feet above the floor on which the cut feed is to fall. But one room is enough for a feed cutter, and it need not be large. There is no need to have the whole barn raised two or three stories just because we want a platform for the feed cutter.

We have just been reading the experience of an Illinois farmer who had been getting along without shelter for his stock, because, as he says, he got it into his head that he must have a great, big barn, with a granary to hold his grain and feeding stuffs, some box-stalls for horses, room for cattle, a place for sick cows, harness room, a place where he could put in an engine and feed cutter, if he should ever determine upon their use, and storage overhead for his hay.

But he was not able to build a barn that would cost as much as his farm was worth, and he considered his yearly losses and those of his neighbors similarly situated, and he concluded that he would begin on a small scale, doing what he could in the way of protection to his animals, until he should be able to build the "great big barn." After experimenting a little he finds he can get along very well, for the present at least, without the three-story barn. "I commenced," he says, "with a shed for the milch cows, putting in floors, stanchions, and gutters, the same as I would have put in a barn. I have thirty cows, and a walk of five feet behind them, and all the manure is wheeled out (in iron wheelbarrows) at south end. This is somewhat inconvenient I grant, but what better could I have secured in a barn, unless I had put holes in the side and shoveled the manure out under the eaves; and I can do that yet if I so desire. The wall on the other side of the shed serves as one side of the manger, and the cows are fed through doors 6 feet long and 20 inches wide, hung upon the lower side, and which can be let down or closed up in an instant. At one end the shed is double—i. e., slopes both ways—and this gives a room or space in which I can put a load of hay, and store grain and feed enough for several days. The hay is carried along by hand from this room and put through these doors to the cows; but it would have to be handled about the same if thrown down at one end from loft over head. When the hay-shed is empty another full load is brought in from the stacks. This arrangement cost so little and worked so well that I followed with sheds for other cattle, in which I pur-

sued the same general plan, only I made the shed a little wider so as to permit of a feed-alley in front of the cattle. This obviates the necessity of going outside in feeding and saves much of the waste resulting from hay being scattered outside on the ground."

He intends to change this plan, next fall, so as to have doors on the side, and a cart can be driven along and the manure thrown directly into it. His arrangements on the inside are made to stay, he says, for he has about made up his mind that he likes the plan. When his posts decay, he will set fresh ones of durable timber beside the old ones and join them. The granary is at one end of his horse sheds, and by extending the same he has a stable for sick animals and young calves, also a shed for wagons and other implements of the farm.

This shedding has been done a little at a time and the owner is so much pleased with the general plan that he proposes to continue it, making improvements as experience suggests. He says about the only inconvenience he finds low is, by reason of his hay not being under shelter, but he will soon arrange to remedy that. He thinks low barns are best for hay. He thinks that hay can be stored much more cheaply in barns constructed specially for the purpose, in which the weight rests upon the ground, and which are filled from floor to roof with hay. Of course it will all have to be handled again, but where large quantities are stored overhead it has to be handled and re-handled considerably before brought before the stock, and when it is stored in a separate barn it can be put upon a wagon and thence placed immediately in the place wanted. Besides, this handling comes at a season of the year when there is little to do.

"I would consider myself fixed," he adds, "if I had shelter for my hay, and then had a two-story barn just big enough to hold a couple of loads of hay, or perhaps one on the upper floor, together with a feed-cutter on the same floor, through which I could put the hay, which would then fall to the floor below ready to be taken either by baskets or by a truck to the mangers. I do not know how far cutting hay will pay or is desirable, because I have not tried it; but if it will not pay to cut the hay then I am firmly of the conviction that I do not need any two-story structure at all. And if it will pay to cut I can add this feature to my present system when I get to it."

**Cutting Potatoes for Seed.**

An Oregon farmer, in giving his experience with potatoes says too many eyes mean too many vines, and this injures the yield and the size of the potatoes. Of course when small potatoes are used for seed it is not necessary to cut them; in fact such a plan is not advisable. But I have never advocated using the small potatoes for seed. I have used them on small plots, and under favorable circumstances I have secured very good yields. Yet for planting a crop from which I expect a profitable result, I would not use the small potatoes for seed, as I am satisfied from my experience with them that they cannot be relied upon to produce as profitable a crop as when good-sized potatoes are used. Some care must of course be exercised in cutting potatoes to do the work in a proper manner.

Merely slicing off pieces with one or two eyes is not all that is necessary. To do the work properly each cut, whether it contains one eye or more, should be cut so as to have part of the heart or center of the potato in it. A very little practice will enable any one to do this just as quickly as to

merely slice off pieces and do the work. I commence early and in a way that will properly divide or proportion the potato evenly, so that each piece will contain a fair proportion of the center. I have often seen recommended the selecting of large potatoes, and then cutting off the eyes and using the center. I have tried this plan and it will result the same as when small potatoes are used for seed. You may under favorable circumstances secure a profitable crop, but you run far more risk of failure than when good medium sized potatoes are used. In my experience I find it better, to secure the best results, to select good, smooth medium potatoes.

**Sorghum for Feed.**

There will probably be more sorghum raised in Kansas this year than ever before, and chiefly for feed. As fast as farmers learn its value they grow more of it.

But there is a good deal to be learned about this plant yet even for feed. In all the letters which our correspondents have written on the subject, not one has ever referred to the danger of deterioration from mixing of the seed. If sorghum and broom corn, for instance, are grown in adjoining lots a few years, the growth will be nearly all broom corn, or a hybrid that is little if any better. And if the best seed, grown on the best stalks, is not used, the crop will deteriorate. It may be said that when grown for fodder only it does not matter about the quality of seed; what one wants is grass. But this is a mistake as any one will learn in time. It matters not whether you are growing it for fodder or for sugar or sirup, the best seed that can be obtained is what ought to be planted or sown. Every farmer that grows sorghum for any purpose, ought to plant a little seed in a good spot every year and take the best possible care of it in order to raise seed. It is well to run the seed through a screen or sieve to remove all the little and worthless grains.

As to methods of sowing or planting for fodder, farmers differ some. Mr. Colvin, of Pawnee county, drills it in rows thickly and cuts with machine and shocks. Our western Kansas farmers are leaning to a double drilling; that is, making the rows about one-half as far apart as corn rows, and then cut with machine and shock.

Mr. Ensign, Harvey county, in a recent letter, says that the seed ought to be sown thick, as much as a bushel to the acre. It will grow, on fairly rich soil, he says, six to six and a half feet high, and stand as thick as timothy upon the ground, and yield from six to eight tons per acre. It can be cut and handled as easily as so much timothy grass. Grown in this way, he says stock eat it readily, and all of it, and with as much relish as they do timothy hay. And then, he suggests another point: If your sorghum is sown and cut early it will give you two to three months of most excellent pasture, yielding double the amount of food that the same amount of timothy or clover pasture will do. The only caution necessary is to let your stock remain in your sorghum pasture, at first, but a brief time. To get the best results an early maturing sorghum, such as the amber should be sown, and the stock turned off as soon as they have filled themselves.

The condition of wheat in Kansas at this time is not good. We have recent reports from different parts of the State. They differ as usual; but with the Hessian fly in some places and ordinary losses in others, besides freezing to an unusual extent, the general condition is not good. A Shawnee county farmer reports that he has made examinations

over a large territory, and that in some fields he found the plants were actually frozen to death. Not a heaving up of the ground, he says, "but is simply frozen to death." He thinks the wheat crop of 1885 in the region he examined will not equal one-half that of 1884. We have no really encouraging wheat reports from any part of the State, but we believe the injury by cold weather is greatly over-rated. Within twenty days, things will look better, we think. It is too soon yet to determine the real condition except in places where plants, roots and all, have been blown away.

**Glanders in Kansas.**

The following explains itself:  
TOPEKA, March 24, 1885.

**Kansas Farmer:**  
At a meeting of the Kansas State Veterinary Medical Association, recently held in this city, the following resolutions were unanimously adopted, with the request that they be published in the KANSAS FARMER and the papers of the State generally.

ED. R. ALLEN, Secretary.

WHEREAS, A malignant, contagious and infectious disease known as glanders has become widespread in our State, and

WHEREAS, This disease is causing large losses among our horses and mules and seriously threatens the live-stock interests of the State as well as the lives of the people who may come in contact with these diseased animals,

Therefore, be it Resolved, That we, the Kansas State Veterinary Medical Association do most respectfully urge upon the Live-Stock Sanitary Commission of the State the rigid enforcement of the law upon our statute books relating to this disease.

**Inquiries Answered.**

**SICK COLT.**—I have a colt that had, as I supposed, the distemper a year ago. It still runs at the nose, mostly in left nostril, sometimes scarcely perceptible. Breathes quite hard sometimes (seems to breathe through mouth) and kind of gurgling in throat. In good condition otherwise.

—The colt has not yet recovered from its distemper. Feed clean hay—not clover; corn fodder is better; feed oats and rye, 10 corn; a pinch of ginger once a day will be good; plenty of pure water; keep well sheltered from storms, especially rain storms, and turn on grass as early as possible. After grass comes, it will need but little grain food, and if it gets all the green feed, clean water, and salt it wants, it will come out all right.

I send you a few specimens of cuttings that have some sort of grub or borer in them. They kill my raspberries every year; they are also in my grape vines to some extent, but do not seem to hurt them a great deal. What are they and what can I do for them?

—There are several different kinds of boring insects that injure vines. We are not able, from the cuttings sent, to decide what one has visited you. During the growing season visit the vines as often as possible, once a day, any way, and destroy all the insects you can. If you have a wide-topped and shallow bucket with water in and shake them into it, you can gather them faster, and if there is some kerosene floating on the water it will relieve you from killing a good many. An emulsion of kerosene and milk sprayed on the vines when insects are busy is very good. Fresh lime will kill them, but it is difficult to get the bug and the lime together. Then, in the autumn, watch the vines closely every day and rub off, destroy in any way, every living sign that you can see about them.

**INDIGESTION.**—I have a mare out of condition. Would like to know what to do for her. She is 9 or 10 years old; was brought from Vernon county, Mo., last June; she has been weak, not able to work for nearly three months; urine somewhat restricted and scanty and high colored at times; bowels in fair condition; slobbers a great deal, sometimes white, other times greenish; has been fairly stabled and cared for; feed—prairie hay (good), corn, oats chopped with corn, bran, oil-meal, etc. She is shedding now, and her skin is getting looser; but she is still weak and slobbers badly; seems to hurt her to eat corn. Can see no trouble with the teeth. I notice her breath smelling badly of late. She has been treated by a veterinary surgeon here, who has given her cleaning and other condition powders; her appetite good; V. S. said her pulse was very low (that was nearly two months ago). Folks say she is not acclimated. Her mate has always been poor, but eats well and has plenty to eat, still she is poor, her hair long, but otherwise seems healthy.

—It is, we suppose, a case of indigestion. If the mare was raised in the Vernon county, Mo., the change to the Arkansas valley in

Kansas would not produce any climatic affection. Slabbering is sometimes caused by defective teeth, and, also, by splinters or bits of hay or other fodder getting between two teeth and producing irritation; but in all cases of that kind, the animal moves its head and jaws in such ways as to indicate the seat of the trouble. In this case, it seems, the teeth have been examined without discovering any painfulness or other defect in that region. Slabbering is a symptom of indigestion, and in this case the kidneys are affected by sympathy, as is common. Feed soft, nutritious food, no corn, not even meal. Let the mare have freedom of exercise during all pleasant and dry days, until grass comes, and then let her have all the grass she can eat. Until grass comes, a little gentian and ginger mixed with the feed will be useful, also two or three times a week a handful of watermelon seeds.

**THE MARKETS.**

By Telegraph, March 23, 1885.

**STOCK MARKETS.**

**St. Louis.**

The Midland Journal reports:  
HOGS—Receipts, 3,900; shipments, 3,200. The market was slow. Yorkers, 4 45/100; packers, 4 44/100; heavy, 4 60/100.  
CATTLE—Receipts, 1,400; shipments, 1,100. The market was firm and active. Exports, 5 65/100; good to choice, 5 25/100; common to medium, 4 50/100; butchers' steers, 4 00/100; cows and heifers, 3 25/100; stockers, 3 50/100; feeders, 4 25/100; corn fed Texas, 4 00/100.  
SHEEP—Receipts, 1,800; shipments, 2,200. The market was steady, and good grades firm. Common to medium, 2 75/100; good to choice, 3 60/100; extras, 4 50/100.

**Chicago.**

The Drovers' Journal reports:  
HOGS—Receipts, 21,000; shipments, 7,500. The market was slow and weak at 10a15c and lower. Rough packing 4 30/100; packing and shipping, 4 45/100; light, 4 20/100; skips, 3 25/100.  
CATTLE—Receipts, 9,000; shipments, 3,000. The market was slow and dull at 1a15c and lower. In shipping grades of cattle averaging 1,500 to 1,400 lbs., 4 50/100; extra, 5 60/100; Texas, 4 00/100.  
SHEEP—Receipts, 5,000; shipments, 2,500. The market was active and steady. Common to medium, 3 25/100; good to choice, 4 25/100.

**Kansas City.**

CATTLE—Shipping steers, 4 40/100; stockers and feeders, 3 75/100.  
HOGS—Heavy, 3 95/100; light, 4 10/100.  
SHEEP—Most arrivals billed through—30c av. 79 lbs. 2 75.

**PRODUCE MARKETS.**

**Chicago.**

WHEAT—March, 73 3/4 @ 75 1/4.  
CORN—Cash 3 3/4 @ 3 7/8.  
OATS—Cash 3 1/2 @ 3 3/4.  
RYE—Cash 63.  
BARLEY—Dull, 63.  
FLAX—Seed—Quiet 1 14.

**St. Louis.**

WHEAT—No. 2 red 58 3/4 @ 59 1/4.  
CORN—Cash 3 3/4 @ 3 7/8.  
OATS—Cash 3 1/2 @ 3 3/4.  
RYE—Quiet 61c.  
BARLEY—Slow at 60.

**Kansas City.**

Price Current Reports:  
WHEAT—Received into elevators the past 48 hours, 162,800 bus, withdrawn 18,253 bus, in store 341,449. The market was strong to day and moderate trading was done. Cash sold at 62 1/4c. 2c over 62c asked Saturday.  
CORN—Received into elevators the past 48 hours, 21,898 bus., withdrawn 8,491 bus., in store 114,917. The market was weak on No 2 corn up to June and quiet. June was offered freely at 5 1/2c with moderate sales. No. 2 cash 5 3/8c bid 5 1/2c asked.  
RYE—No. 2 cash, 51c bid, 51 1/2c asked.  
OATS—No. 2 cash, 31c bid 32c a ked.  
BUTTER—Receipts of roll butter light and quality mean. Receipts of creamery larger and quality poor. Demand light and outside offerings from creameries large and prices lower in sympathy with eastern markets.

We quote packed:  
Creamery, fancy fresh made..... 28a29  
Creamery, choice " "..... 26a27  
Creamery, fair..... 22a24  
Creamery, inferior to common..... 1a18  
Choice dairy..... 19a20  
Fair to good dairy..... 12a14  
Storepacked table goods..... 12a

We quote rolls:  
Good to choice, wrapped..... 14a16  
Good to choice, unwrapped..... 10a12  
EGGS—New York is a shade higher and some four buyers have sold short for to day's delivery. Market active and a shade higher. We quote at 13a13 1/2c.  
CHEESE—We quote new eastern out of store—full cream: Young America 14c per lb; do twins or flats 13 1/2c; do Cheddar, 13 1/2c. Part skims: Young America 9a10c; flats 8 1/2c; cheddar 8 1/2c. Skims: Young America 6a7c; flats 5 1/2c; cheddar 5 1/2c. Old or sharp 1 to 4c lower as to quality.

POTATOES—We quote home grown in a small way at 75a80c per bus. Consignments in car load: Early Rose 65a70c, White Neshannock 5a6c, Peachblow and other choice varieties 60a63c. Col. v. a stock 70a73c. Early Ohio 80c.  
SWEET POTATOES—Home grown 90a100 for red per bus; yellow 10a125c per bus.  
TURNIPS—We quote consignments at 8a100 per bus.

APPLES—Consignments of Missouri and Kansas: home to fancy, 30a37 1/2c per barrel; common to good 175a150 per bush. Home grown from wagons 75a90 per bus for fair to good. Stand apples 100a125 per bus.  
SORGHUM—We quote consignments in car lot old dark 10 to 20c per gal; new good 20 to 25c; do fancy 25 to 30c.  
ASTOR BEANS—Quoted at 140a150 per bus.  
FLAX—SEED—We quote at 123a125 per bus upon the basis of pure.

### Horticulture.

#### Making a Lawn.

Nothing adds beauty to the home grounds more than does a well arranged lawn, and no person among human kind has such favorable opportunities and such ample facilities for making this attraction as a farmer has. A little labor wisely bestowed, and a little good taste—just such taste as any man and woman whose souls are linked together always have—judiciously applied will produce a lawn whose beauty will be a joy forever. A child that plays upon a lawn carries with it through life at least one happy memory.

In preparing ground for a lawn, the first thing to be done is to drain the ground. Artificial draining is not absolutely necessary if the ground has good natural drainage, but under draining does good to all solid land. Then dig, spade, plow, any way to get the earth loosened deep—eighteen inches if possible, and mix well with barnyard manure, the more rotten the better.

We have just read an excellent article on this subject in the *American Garden*, written by Samuel Parsons, Jr. On the matter of breaking the ground he says:

Some of the best lawns in the world are made by spading to the depth of at least eighteen or twenty inches, but thorough and skillful plowing and subsoiling accomplishes the necessary pulverizing and mixing and does the work quite as well as spading, provided an equal depth is reached. Deep culture in the preparation of a lawn is of the utmost importance, for on deep culture depends in a large degree the ability of the grass to resist the severe effects of protracted drouth.

The ground should be neatly graded to correspond to surrounding scenery and topography. The surface of a lawn ought to have regularity of outline, rising toward the dwelling house. Long flowing surface lines, as suggested by Mr. Parsons, should characterize the grade as finally established, and slight elevations or swells more or less pronounced according to the topography of the surrounding territory, should appear immediately around the trees and shrubs and the other outskirts of the tract. Mathematical lines, it should be remembered, are to be avoided in lawn making. The natural effect is always the best effect to be obtained in landscape gardening and flat surfaces and straight lines are never found in nature's work of this kind. A top dressing of fifteen or twenty tons of old well-rotted stable manure should now be spread over the graded lawn and then lightly spaded or plowed in so as not to disturb the lines of grade established. The surface should then be once more harrowed and raked carefully. All this fertilizing, spading, plowing, sub-soiling, harrowing and raking repeated over and over again may seem like taking unnecessary trouble, but we assure the reader that such repetition of effort is seldom wasted in the endeavor to secure an approximation to soil in which no one inch is more dense than another.

Next in order comes the sowing of the seed. Good mixtures of different kinds of grass seed are offered by all reputable seedsmen and are said to be more effective because of the number of varieties used but we have found Kentucky blue grass, *Poa-pratensis*, excellently adapted to most soils, a vigorous grower from the start, and fitted to produce a rich green, lasting sod on sandy as well as heavy land. Do not spare grass seed if you wish to make a good lawn. Six bushels to the acre of Kentucky blue grass seed is not too much, and you may if you wish, add a few pounds of white clover seed, although white clover is apt to work its way into

many lawns without sowing. Rake in your grass seed evenly and thoroughly and then at once roll the lawn with a heavy iron roller in order to pack the seed firmly into the ground and thus help materially the progress of germination. Roll frequently during at least the first season, and begin to cut as soon as the hand mower will take hold well. The extra care of frequent cutting and rolling is important for the thickening and even growth of the young grass.

In Kansas a very fine soil is often seriously affected by wind, and for that reason, it is well to sprinkle straw or hay, or strawy manure well separated, over the freshly sown ground. This prevents movement of the surface soil, and protects the young grass shoots. They come up nicely through the straw, and when the roller is passed over the ground, the straw is all pressed down closely, so that it is not in the way and will never interfere with the growth of the grass, and will never be noticed after the grass is well started.

We wish that every one of our readers would study the subject of this article, and proceed without delay to make a lawn about the dwelling if one is not there now.

And please do not forget that a lawn is not complete without trees, both deciduous and evergreen, and a few flowering shrubs.

B. F. Smith, Lawrence, Kas., is authorized to disseminate the Mariana plum in this State. As the foliage remains green until hard freezing weather, the Mariana is highly ornamental, as well as being one of the earliest and largest of plums. His catalogue gives description and plate of the Mariana. See his advertisement in this and several preceding issues of the FARMER.

send for free catalogue of **TREE PLANTERS** Largest and Cheapest variety. Geo. Pinney, Sturgeon Bay, Wis.

#### Johnson Grass Seed.

Fresh, well-cleaned Seed for sale at \$3.50 per bushel. Cash to accompany order. Descriptive circular sent on application. **JOB. HARDIE & CO.,** Selma, Alabama.

**GREGG,** Marlboro, and other Rasp. berry plants, in any quantity, first quality, at low prices. Warranted true to name. Send for prices, or order, to **N. OHMER,** Dayton, Ohio.

**STRAWBERRY PLANTS**—25,000 for sale. Varieties, Wilson's Albany, Cumberland Triumph and Crescent Seedling. Prices—\$2.50 to \$10 per 1,000, owing to quantity and quality taken. Will sell whole lot at greatly reduced prices to any one or two parties who will take them up themselves. **H. CLARKSON,** 351 Tyler street, Topeka, Kansas.

#### Hart Pioneer Nurseries,

[Established, Dade Co., Mo., 1857; Ft. Scott, Kas., 1865; Incorporated, 1884.]

**FORT SCOTT, : : KANSAS.**  
A full line of Nursery stock, all warranted true to name. No substitution of varieties to our purchasers. Reference: Bank of Ft. Scott. For other testimonials see our catalogue.

**YORK NURSERY COMPANY** (Established 1870). Nurseries and Green Houses at FORT SCOTT, KANSAS. Largest Stock of Nursery and Green House Plants in the West. BEAUTIFULLY ILLUSTRATED CATALOGUE now ready. Mailed to applicants free.

#### WESTERN GROWN TREES!

**THE MIAMI NURSERIES,** Louisburg, Kansas, Offer for the Spring Planting their usual large stock of well grown, well assorted, and finely rooted Fruit Trees and Plants. Estimates furnished free, and correspondence solicited. Address, **GADWALLADER BROS.,** Louisburg, Kansas.

#### HEDGE PLANTS!

**3,000,000**  
—For Sale by—  
**BABCOCK & STONE,**  
NORTH TOPEKA, KANSAS.

#### Red Cedars and Timber Tree Seedlings!

**LARGE STOCK! LOWEST PRICES!** Transplanted Red Cedars (sure to grow). Hardy Catalpa, Russian Mulberry, Cottonwood, Sycamore, Yellow Willow, White Ash, Elm, Box Elder, Maples, Dogwood, Red Bud, Sweet Gum, Tulip Tree, Strawberry and Rasp berry plants, Apple and Pear grafts, Peach pits, Black Walnuts, the famous "Old Iron-Clad" Strawberry, the earliest and best strawberry yet produced. Write for Price List. **SALLEY & HANFORD,** (On Ill. C. R. R.) Mankanda, Jackson Co., Ill.



17 packets of seed and 60 cts. TWO collections for \$1.10, FOUR for \$2.20. This is an offer never made before. To gladden the heart and brighten the way of every tiller of the soil and lover of the beautiful home, we have with each unbounded success that we renew it with a more tempting offer, and here let us say we grow these seeds by the pound, by the bushel, and by the acre. 13 PACKETS OF THE FINEST FLOWER SEEDS FOR 50 CENTS, one each, of Aster, Balsam, Petunia, Portulaca, Phlox, Pansy, Verbena—all finest strains and most beautiful colors. Large Double English Holly-hock, New Dwarf Marigold, extra large double Zinnias, bright colors. One fine ornamental grass, One elegant climbing plant. One beautiful Everlasting Flower. 13 pkts for 50 cts. TWO collections for 50 cts. Packets are regular size, with directions for cultivating. Our beautifully illustrated and descriptive Catalogue accompanies each order. Address all orders to **SAMUEL WILSON, SEED GROWER, MECHANICSVILLE, PENNSYLVANIA.** Letters and money orders to **SAMUEL WILSON, GROWER, MARBLEHEAD, MASS.**

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Seeds at AT WHOLESALE PRICES. In order to introduce our door into 50,000 homes free of cost, we make the following unprecedented offer: **FOR 60 CTS.** in postage stamps or money, we will send by mail a box containing, first, 17 packets, one each, of the following: Early Green Prolific Cucumber, best as cucumbers or pickles. No Plus Ultra Sugar Corn, productive, early, tender, and sweet. New Golden Heart Lettuce, best for heading; good all summer. **THE GREAT IRON-CLAD WATERMELON,** largest, finest, sweetest, best-keeping watermelon in the world. Orange Cream Bushmelon, sweet, spicy, and delicious. New Silver Ball Italian Onion, beautiful, large, mild; grows 8-pound onions from seed. Ruby King Pepper, largest, finest, sweetest pepper ever seen. Abbott's Sugar Parsnip, greatly improved variety. Ohio Sweet Potato Pumpkin, enormously productive, excellent quality; keeps all winter. French Breakfast Radish, best of all early radishes. White Pineapple Squash, extra quality, good for summer or winter. New Cardinal Tomato, largest and smoothest of any. White Munch Turnip, best for table use. **SAMPLE PACKET OF GOLDEN BEAUTY CORN,** most beautiful and productive of any in the country. Second, 10 packets of the EARLIEST POTATO, THE STRAY BEAUTY, POTATO ever yet seen; very productive, excellent quality, beautiful as an oil painting.



**SEED Warranted to Grow.**  
or order refilled gratis. I have sold vegetable and flower seed to over a million farmers and gardeners in the United States, perhaps some are your neighbors, if so ask them whether they are reliable. Mr. Thomas Henshall of Troy, Kansas, writes me: "For 28 years I have dealt with you. I have lived in Iowa, Missouri, Colorado, and Kansas, and no matter what the soil or climate, the result was always the same, to wit—reliably honest and good." This is the kind of seed I raise and sell. The Hubbard and Marblehead Squash, Marblehead Corn, Marblehead Cabbage, Ohio Potato, Eclipse Beet, are some of the vegetables of which I was the original introducer. A Fair with \$500 in premiums. See my catalogue, free to all. **JAMES J. H. GREGORY,** (Seed Grower), Marblehead, Mass.

**J. C. VAUGHAN 42 LASALLE ST. CHICAGO**  
WILL MAIL FREE ILLUSTRATED CATALOGUE OF **GARDEN TOOLS**  
**ALL SEEDS** GARDEN, FIELD, TREE and FLOWER. CORN and POTATOES. MOST COMPLETE LIST IN THE U.S.

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80 Varieties. Also Small Fruits. Quality unsurpassed. Warranted true to name. Very cheap. Illustrated descriptive price list free. **LEWIS ROESCH,** Fredonia, N. Y.

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In any quantity. I make a specialty of these plants, and I can guarantee them true to name. Parties desiring to purchase plants of these varieties will find it to their advantage to correspond with me. Seed for list. **FRED FASON,** Fruit-Grower, Leavenworth, Kas.

**100,000**  
Peach Trees in storage for immediate shipment. Also Apple, Apricot, Plum, Grapevines and Forest Tree Seedlings.  
200 Acres in Nursery. Write for price list—Free. Address **J. B. Wild & Bro.,** Sarcoxie, Mo.

#### TOPEKA SEED HOUSE.

**Orchard Grass, TIMOTHY, CLOVER, :: BLUE GRASS.**  
Our Garden Seeds are direct from Growers, fresh and true to name. Orders promptly filled. Send for Price List of Seeds.  
Address **DOWNES & MEFFORD,** 78 Kansas Ave., TOPEKA, KAS.

**IT WILL PAY YOU**  
To send a trial order to us, if you want to grow only the best quality of **SEEDS OF PLANTS.** 12 year experience. Before buying send for our catalogue and see varieties and prices. Address **BANSLER & BRO.,** Box 13, Manhattan, Kansas.



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1,000,000 Russian Mulberry; 500,000 Hardy Catalpa Russian Apricot, Dwarf Juneberry, and all other kind of Fruit, Forest and Ornamental Trees. Grape Vines, Small Fruits, etc. A PAPER devoted to fruit growing Free for one year to those who buy \$1 worth of trees. 100 Russian Mulberry for \$1. 12 Concord Grape, 1. 4 Russian Apricot, \$1. and 122 other \$1 sets, per mail, postpaid. Four 4 Trees for Timber Claims. Send at once for a Price List. Address **CARPENTER & GAGE,** Bower, Jefferson Co., Neb.

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**Vegetable Seeds,**  
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All Sizes; suitable to ship. **EUROPRAN LARCH, CATALPA, WHITE ASH, RUSSIAN MULBERRY** and other forest trees, all nursery grown, at honest prices. Price list free. **D. HILL,** Nurseryman, Dundee, Ill.

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Catalpa Speciosa, White Ash, European Larch, Pines, Spruces, Arbor Vitas, etc., etc. **Catalpa Speciosa Seed** Forest and Evergreen Seeds. **R. DOUGLAS & SON,** Waukegan, Ill.

**STONE'S HARDY** All the leading Strawberries, Raspberries, Grapes, and Small Fruits. **STONE'S HARDY BLACKBERRY** in our specialty. Best plants. Lowest prices. Send for List. **Gee & Converse,** BLACKBERRY (Name paper.) Fort Atkinson, Wis.

### The Veterinarian.

[The paragraphs in this department are gathered from our exchanges.—ED. FARMER.]

**WORMS.**—I have a horse that is troubled with worms, and has been for some time. Have tried several remedies, but without success. Can you give any remedy? [For full-grown horse: Tartar emetic, 1 dram; powdered ginger, 1 dram. Make into a ball with linseed meal. Give one every morning for a week on an empty stomach. Then purge with aloes. You will have no more worms.]

**MANGE.**—Will you please give a recipe for the mange, and the course of treatment to pursue to effect a cure? [Mange on horses, cattle or swine may be thus cured: Take 1 ounce of carbolic acid (crystals), and dissolve in one quart of water. Apply once a day to the parts affected. Give as a condition powder in tablespoonful doses once a day the following: Rosin, sulphur, madder and saltpeter in equal quantities.]

**OVER-EATING.**—I have a specific for the cow that has over-eaten dry food, to-wit: Make a very strong brine of common salt. Take a drenching bottle, fill it with the brine, and pour it down the animal, and if she drinks well the cure is effected. If she will not drink as much as she ought, give her another bottle twelve hours from the first. I have never been obliged to give more than two bottles to effect a cure. The salt will create thirst. Give her all the water she wants; give grain sparingly for a week or ten days, and she will be all right. I cured one last winter that was so bad she would fall down if turned loose, would hok the manger and stall, and her eyes would dance. Do not say "that is too simple." Try it, and save your cow.

**HEAVES.**—What can I do for my six-year-old mare? She is becoming rapidly affected with the "heaves." [Give special attention to the feeding, watering and working of the patient. Select good food and feed it regularly three times a day. Oats morning and at noon, and carrots at night, constitutes an excellent diet. If carrots cannot be had, feed ground oats and corn meal with a small handful of ground flax seed in each mess; the oats should be carefully sifted to free it from every particle of dust previous to its being fed. If long hay is fed the prairie hay should be selected. It should be well shaken and sprinkled with salt water, and should be fed in limited quantities, at night only. Water should never be given immediately after eating; the better way is to water often through the day, a little each time, while the animal is being worked. Exercise regularly, but do not exhaust the patient by over-work.]

**LUMPS IN HORSE'S NECK.**—I bought a twelve-year old horse two weeks ago, and he is thin in flesh and slightly hide-bound. I notice he is somewhat stiff in the neck. When he looks around, lumps about three inches apart, and slightly sore to touch, show on the thick part of the neck above the windpipe. When at work he coughs some, especially when he starts to trot. He is a good feeder, and wind seems all right. When drinking water, he will take two or three mouthfuls and stop, chew and slobber. I use him for farm purposes. Please advise me what to do. [Wind a bit with flannel, then smear some of the following paste on it and put in his mouth, tying it to the halter: [Powdered licorice root, 1 lb.; powdered chlorate of potash, 6 oz.; powdered nitrate of potash, 4 oz.; fluid extract of belladonna, 2 oz.; and sufficient quantity of raw linseed oil to form a thick paste. Dose, two or three tablespoonfuls, three times a day. Leave bit in mouth for an hour or so.]

It is Dangerous to tamper with irritating liquids and exciting snuffs Use Ely's Cream Balm, which is safe and pleasant and is easily applied with the finger. It cures the worst cases of Catarrh Cold in the Head and Hay Fever, giving relief from the first application. All druggists have it. Price 50 cents. By mail 60 cents Ely Bros., Owego, N. Y.

I have been bothered with catarrh for about twenty years I could not tell how many different remedies I have tried, and none seemed to reach my case like Ely's Cream Balm. I had lost my smell entirely for the last fifteen years, and I had almost lost my hearing. My eyes were getting so dim I had to get some one to thread my needle. Now I have my hearing as well as I ever had, and can see to thread as fine a needle as ever I did, and my smell is partly restored, and it seems to be improving all the time. I think there is nothing like Ely's Cream Balm for Catarrh.—Mrs. E. E. Grimes, 67 Valley St., Rendell, Perry Co., Ohio.

There are eleven million horses in the United States—about one for every fifth person.

Fifteen hundred millions of dollars are said to be the value of the cattle in the United States.

If your horses have sore shoulders, scratches, cuts or open sores of any kind, use Stewart's Healing Powder.

A worthy but poor minister requested a loan of fifty dollars from the cashier of a bank, and in the note requesting the favor he said he would "pay in ten days on the faith of Abraham." The cashier returned word that by the rules of the bank the indorser must reside in the State.

#### YOUNG MEN!—READ THIS.

THE VOLTAIC BELT Co., of Marshall, Michigan, offer to send their celebrated ELECTRO-VOLTAIC BELT and other ELECTRIC APPLIANCES on trial for thirty days, to men (young or old) afflicted with nervous debility, loss of vitality and manhood, and all kindred troubles. Also for rheumatism, neuralgia, paralysis, and many other diseases. Complete restoration to health, vigor and manhood guaranteed. No risk is incurred as thirty days trial is allowed. Write them at once for illustrated pamphlet free.

If you want  
**A YOUNG SOW,**  
Bred to our crack  
Boars;

If you want  
**A YOUNG BOAR**  
Pig;

If you want  
**A YOUNG SOW**  
Pig;

If you want  
to place an order for  
**A SPRING PIG;**

**POLAND-CHINA SWINE.**

If you want  
**A SETTING OF**  
Plymouth Rock  
Eggs, at \$1.50;

If you want  
a Thoroughbred  
**SHORT-HORN**  
**BULL,**  
From \$100 to \$125.

Write to  
**MILLER BROS.,**  
Junction City,  
Box 298. - Kas.



#### RANKIN BALDRIDGE, Parsons, Kansas,

Breeder of Pure Poland-China Hogs. This herd is remarkable for purity, symmetry and good breeders. Black Jim, a prize-winner, bred by B. F. Dorsey, heads the herd. Stock recorded in Central Poland-China Record. Correspondence invited.

#### MEADOW BROOK HERD



#### OF POLAND-CHINA SWINE.

Breeding Stock recorded in American and Ohio Records. Tom Duffield 1675 A. I. C. R., at head of herd. Always space with latest improvements of the favorite breed. Personal inspection solicited. Correspondence promptly answered.

JELLEY & FILLEY, Proprietors,  
KINGMAN, KANSAS.

#### Pioneer Herd of Holstein Cattle

#### DUROC JERSEY SWINE.



For beef, butter, and cheese, breed **HOLSTEINS.** For largest return on money invested in swine, breed **DUROC JERSEYS.** Choice registered animals for sale by **WM. A. GARDNER, Oregon, Mo.** Correspondence solicited. When writing mention this paper.



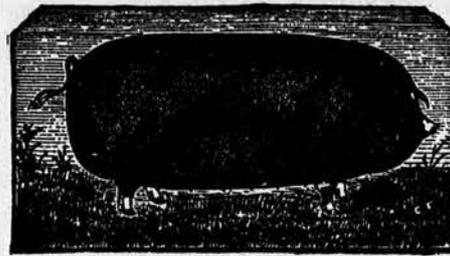
#### REGISTERED

**POLAND-CHINAS.**

62 Page Illustrated Manual. Sent free on application to Shepard & Alexander, Charleston, Illinois.



Chester White, Berkshire and Poland China Pigs, fine Setter Dogs, Scotch Collies, Fox Hounds and Beagles, Sheep and Poultry, bred and for sale by **W. GIBBONS & Co.,** West Chester, Chester Co., Pa. Send stamp for Circular and Price List.



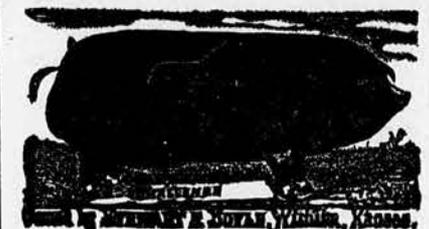
#### Dr. Thomas Blackwood,



Breeder of **POLAND-CHINA SWINE.** My Poland-China herd numbers over 75 head. My stock is first-class, all registered, and guaranteed just as represented. Choice breeding stock not akin, of both sexes, or sale at all times at reasonable prices. All correspondence promptly answered. For full particulars and price address,

**THOMAS BLACKWOOD,**  
Clay Center, Kansas.

#### Acme Herd of Poland Chinas



At the head of our select herd of 25 matured sows, stand two grand boars, Kentucky King 2661 and Challenge 4499, both prize-winners, and for individual merit unsurpassed in the State or elsewhere. Stock of all ages generally on hand for sale. Pedigree "all-edges," prices reasonable and satisfaction guaranteed. Address **STEWART & BOYLE, Wichita, Kas.**

#### THOROUGHbred POLAND-CHINAS

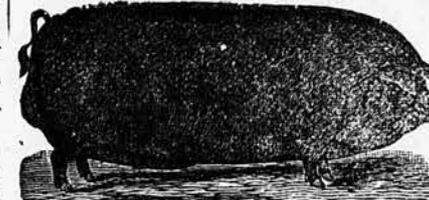


As produced and bred by **A. C. MOORE & SONS, Canton, Ill.** The best hog in the world. We have made a specialty of this breed for 38 years. We are the largest breeders of thoroughbred Poland-Chinas in the world. Shipped over 700,000 in 1883 and could not supply the demand. We are raising 1,000 pigs for this season's trade. We have 16 sows and 10 males we are breeding from. Our breeders are all recorded in *American P.-C. Record*. Pigs at sale to record, \$1.25 each of 48 breeders free. *Swine Journal* 25 cents or 2 cent stamps. Come and see our stock; if not as represented we will pay your expenses. Special rates by express.



**ISAAC WOOD, Oxford, Kas.—PIONEER.** The sweepstakes herd of the Southwest for three consecutive years. Controlling the blood of all the popular strains of the day. Six years a specialty. A fine furnished top of kin. Quality of stock and pedigree first class. Prices low, and favorable rates by express to all points. Pigs of different ages ready to ship, and orders taken for future delivery. Satisfaction guaranteed. For history of herd, see Vol. IV, page 31; Vol. V, page 47, and Vol. VI, page 37, Ohio P.-C. Record.

#### Poland-China and Berkshire HOGS.



We have for sale a fine lot of Poland-China and Berkshire Pigs, from 2 to 6 months old. Ours is the largest herd of pure-bred Swine in the State, and the very best strains of blood of each breed. If you want any of our stock write us and describe what you want. We have been in the business many years, and have sold many hogs in this and in other States, and with universal satisfaction to our patrons. Our hogs are fine in form and style, of large stock, quick growth, good bone, hardy and of wonderful vitality. Our Poland-Chinas are recorded in the *American Poland-China Record*.

**RANDOLPH & RANDOLPH,**  
EMPORIA, LYON Co., KANSAS.

#### TIMBER LINE HERD

#### HOLSTEIN CATTLE and POLAND-CHINA PIGS.

We have on hand 150 head of fine pigs for sale now and for spring trade. Also a fine yearling Holstein bull and a few grade Holstein cows for sale. Splendid milkers. We guarantee satisfaction. All correspondence answered. Inspection invited.

**W. J. ESTES & SONS,**  
Andover, Butler Co., Kas.

#### PURE-BRED Berkshire and Small Yorkshire SWINE.



We are breeding 25 of the best selected sows of the above named swine to be found in the country, direct descendants from *Imported Sires and Dams*. We are prepared to fill orders for either breed, of both sexes, at the very lowest prices.

We have tried Small Yorkshires thoroughly, and are satisfied that they cannot be excelled as a profitable hog to raise. They are very docile and mature rapidly. Send for prices and catalogue to

**WM. BOOTH & SON,**  
Winchester, Jefferson Co., Kas.

#### PLEASANT VALLEY HERD

#### Pure-bred Berkshire Swine.



I have thirty breeding sows, all matured animals and of the very best strains of blood. I am using three splendid imported boars headed by the splendid prize-winner Plantagenet 2919, winner of five first prizes and gold medal at the leading shows in Canada in 1881. I am now prepared to fill orders for pigs of either sex not akin, or for matured animals. Prices reasonable. Satisfaction guaranteed. Send for catalogue and price list, free.

**S. McCULLUGH,**  
Ottawa, Kansas.

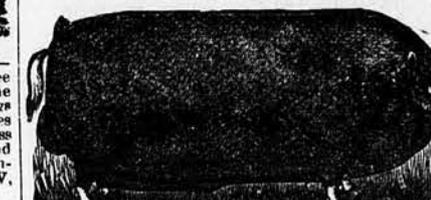
#### JAMES ELLIOTT, Abilene, Kansas,



Breeder of **HIGH CLASS BERKSHIRE SWINE.** My herd is composed of twenty breeding sows of the leading families known to fame, headed by Earl of Carlisle 10459. My hogs are noted for size, uniformity, fine heads, broad hams, great depth, with short, strong legs. They are perfectly marked, having good coats of hair, and high quality of bone that enables them to carry great weight, combining quick and easy feeding qualities. Stock all recorded in A. B. R. I am now prepared to fill orders for pigs, of either sex. Prices reasonable. Correspondence and inspection invited.

#### WELLINGTON HERD

#### ENGLISH BERKSHIRES.



The Wellington Herd of well-bred and imported Berkshires is headed by **HOPEFUL JOE 4889.** The herd consists of 16 matured brood sows of the best families. This herd has no superior for size and quality, and the very best strains of Berkshire blood. Stock all recorded in A. B. R. Correspondence and inspection invited. Address **M. B. KEAGY,** Wellington, Kas.



#### S. V. WALTON & SON, Box 207, Wellington, Kansas,

Breeders of **IMPROVED POLAND-CHINA HOGS** of the highest type. All well pedigreed. Correspondence solicited.

### The Poultry Yard.

#### Feeding and Care of Chicks.

An experienced poultry-raiser in New York—Mr. C. Weld, gives good advice to the readers of *Country Gentleman*. He says:

There is probably no more common complaint than that chicken-raisers have difficulty in rearing early chicks. Few have difficulty in hatching, even with incubators. There are, of course, natural blunderers—heedless persons—who cannot, with the best intentions, give an incubator proper care. These will have difficulty in hatching, but ordinary common-sense people will succeed in hatching as many eggs in an incubator as would be hatched under hens at the same time of year, and with a great deal less trouble.

If a hen is hatching, my rule is to let her alone until the next morning, even if that be twenty-four hours. There is no probability that she will leave her nest. The chicks will not need either meat or drink, and it is usually folly to disturb them. If, however, the hen is restless, and is stepping on her chicks, or is disturbed by other hens, or the chicks are very active and likely to fall out of the nest (and under any circumstances the next morning), I take all the active ones away and put them into the well-warmed "mother," or "brooder," leaving the weak ones, and freshly-hatched ones for longer brooding. Before putting chicks from the nest into the brooder, grease their heads and under the wings with lard for fear that lice or nits from the hen may already have become attached to the little ones. For, like people, hen lice prefer "spring chicken" to "old hen."

Machine-hatched chicks are treated in precisely the same way—that is, left in the nursery—excepting that it is not necessary to apply the lard, for no kind of vermin infest the incubator.

An egg that is seen to be very slow in hatching will often be found to be dry. The chick cannot turn itself, being glued to the shell. It will struggle until it is weak and exhausted, and then probably die. It may sometimes be saved after it is chipped, by opening a small hole near the bill, unless one has already been broken through, and then placing the egg in water of the temperature of about 105 deg., the hole being kept above water, of course. The egg may remain half an hour in the water if it be kept warm, and it will absorb water through the shell and become quite active. After this, if placed under a good, steady hen, the hatching will go on. Attempts to liberate a chick by force, result almost always in failure, as does also any attempt to increase the moisture by actually letting a few drops of water run into the shell. Water within the shell causes struggles, and produces serious hemorrhages, which are almost always fatal. I usually tuck such eggs under the quiet hen and let them take their chances. Ill-formed chicks rarely amount to anything, yet weaklings often look like cripples, and will warm up, begin to eat, and, after a while, their legs gain strength, and they become "smart" enough.

I would never allow hens to brood their chicks. A good brooder gives the chicks freedom to run away from or under the heat, just as they will run out from and under a hen. They will very soon learn where it is most comfortable. The temperature should vary from say 110 deg. close to the source of heat, to 80 deg. on the floor in one compartment; and there should be an outer compartment where, by day, the chicks can take sun baths without being much subject to drafts of air, and where the temperature in the shade will not be far from that of the outer air, but above freezing. This outer compartment is the feeding-room. Chicks begin to pick at food at a few hours old, but they do not eat. Some will eat a little at twenty-four, but they need nothing whatever until forty-eight hours old. Then they should have both food and water, or milk.

There are almost always an abundance of infertile eggs removed from the incubator, after the first batch of unfertilized ones has been taken out. The only use for these is as chicken feed. If hard boiled, they form an excellent article of diet for young chicks. They may be broken up, shells and all, quite fine, and with oat meal, not mixed, but kept in separate dishes, are the best first feed which chicks can have. The little things manifest thirst as early as

they do hunger, and should be systematically furnished with drink. Where the idea originated that they ought not to have anything to drink until five or six weeks old, I cannot imagine, but have repeatedly received letters asking why the chicks which appeared healthy died when a week or two old, though having plenty of good food "and no drink whatever." I can think of nothing that would insure premature death with greater certainty.

After the first day or two, coarse oat meal, the screenings from winter wheat, which contain a considerable portion of broken grain, and a small quantity of bone meal, may form the regular feed, either mixed or separate, but preferably separate, in different feeding vessels. The vessels should be protected by wires so that the chicks cannot run over the feed. When the choicer portions are picked out, which may be every morning, the rest should be thrown out for older fowls, and the vessels cleaned and re-filled.

There must be also a dish of fine gravel, and one of ground oyster shells, supplied from the first, especially if the chicks cannot run out upon the ground. Drinking vessels must be cleaned daily. Milk, skim milk, buttermilk, and sour milk, are all excellent for chickens, young or old, but for a steady drink, nothing is better than pure water. It is an excellent plan to have a few lumps of fresh charcoal in the water vessel. It has the property of promoting the decomposition and destruction of soluble impurities which may be in the water. Charcoal is, beside, an excellent article of diet for chicks. It may be given in fine powder mixed with any kind of feed.

When the chicks can run about in grassy yards, they will need no green feed beside; but in confined pens, or yards where little or no grass grows, they should have some green food all the time. Leaves of cabbage or of lettuce, chopped onions, or something of the kind, are the best winter substitutes for grass. In the summer, grass may be chopped fine for them. They are very fond of fruits, especially of apples, and these make a good variety.

When three weeks old, it is well to feed a little meat, unless there are eggs to spare. Sheep's pluck—that is, the heart, lights and liver of a sheep—well boiled, is the best to begin with. It should be fed in small quantities, once in two or three days, and so that each chick gets its share and no more. Chicks need to be fed oftener than old fowls. They get on very well on the three-meals-a-day system, but it is better to feed little and often, and to leave some food before them all the time. Condimental food should never be used for chicks, unless, indeed, weakly ones be separated for special treatment, when stimulation may be indicated.

No error is more frequent, or more fatal, than that of confining chicks in heated chambers or brooders, out of which they cannot run in moderately cold weather. A brooder may be set out of doors, where it will get the sunshine during most of the day, and if the inner chamber be kept at the right temperature, the chicks will run out and in, even among snow-drifts, and enjoy the cold as much as the heat.

Rains are very injurious, and often fatal. Hence, on the approach of rain, after the chicks have been allowed to run—they being, of course, shut in at night—they must be called or driven in, and shut up, so that they are in no danger of getting very wet. In rainy weather, with lucid intervals, I have found little wire corrals, placed around the door of the brooder, so that the chicks can run about in the cold and wet a little, to answer a good purpose. As soon as they begin to feel chilly, they are so near the source of heat and comfort that they will at once run in and warm their backs. Then the sprinkling will do them no harm.

Chicks are often neglected, and so left out in the rain, or become chilled to death. They may be found dead, yet limp—not yet stiffened; and it is often the strongest and most active ones of the flock that, being at a distance from the brooder, run for shelter under some bush, where they finally become wet, numb and dead. Life may be restored by warmth, in most cases. Take the chilled chick in the hand, and hold it submerged, except the head, in very warm water. As soon as it is heated through, the heart will begin to beat, and the chick will gape, stretch its neck, and may then be dried off and placed in warm cotton, in a very warm place. It will soon be well. I have often placed them in a cigar box, with cotton around and over them, and set a tin-pail of hot

water upon the open box, leaving free breathing space.

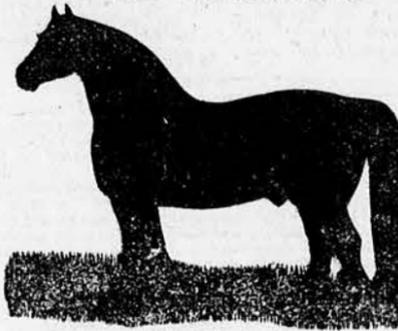
#### A Husband's Greatest Blessing

Is a strong, healthy, vigorous wife with a clear, handsome complexion. These can all be acquired by using Dr. Harter's Iron Tonic.

If your horses have sore shoulders, scratches, cuts or open sores of any kind, use Stewart's Healing Powder.

### F. J. JOLIDON & SON,

Elvaston, Hancock Co., Illinois.



IMPORTERS OF  
Normans, Clydesdales and English Draft Horses.

Two importations of 1884 now on hand, and another large importation to arrive soon. Having personally selected these horses from the best breeding districts of Europe, we offer a superior lot of these horses, unsurpassed in breeding and individual excellence. All persons in search of first-class horses will save money by calling on us. Prices low, terms easy. Elvaston is on the Wabash and St. Louis & Pacific R. R., six miles east of Keosauk, Iowa, and fifty miles west of Bushnell, Illinois.

Headquarters for  
ENGLISH SHIRE

—AND—  
NORMAN  
HORSES.



ROSEDALE  
STOCK FARM

W.M. THOMPSON & SON,  
MAYSVILLE, DE KALB CO., MO.

—WITHIN—  
One hour's ride from St. Joseph, Mo., and two hours from Kansas City, Mo.

Three importations of Thirty Stallions and Mares now on hand—a grand selection to pick from.

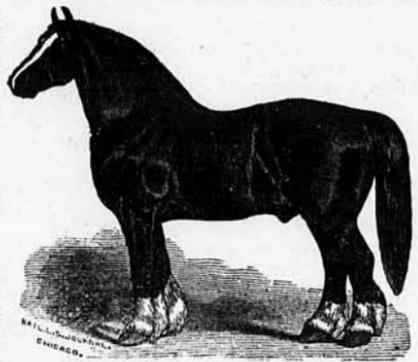
LOCATION.—ROSEDALE STOCK FARM is situated 9 miles north of Osborn, on the Hannibal & St. Joseph R. R., and 39 miles east of St. Joseph, Mo. and 15 minutes' ride west on the H. & St. Joe R. R. from Cameron Junction, Mo.

Free conveyance furnished at Messrs. Chipps & Berlin's stable, close to depot at Osborn.

EVERY HORSE RECORDED and guaranteed a breeder. Send for Catalogue. Prices low and terms easy.

OVER ONE HUNDRED  
CLYDESDALE, ENGLISH DRAFT  
AND PERCHERON NORMAN

Stallions and Mares arrived in August, '84.



Another importation just received, ages range from two to four years old. Our stock won fifteen premiums at the Iowa State Fair of 1884; also sweepstakes on Clydesdale stallions and sweepstakes on Percheron-Norman stallions. 300 High-Grade Mares, in foal to our best imported horses, for sale.

Advantages offered to customers at our ranch: Many years' experience in importing and breeding; immense collections, variety of breeds, enabling comparison of merits, the best of everything. A world-wide reputation for fair and honorable dealings. Close proximity to all the through railroad lines. Low prices consequent to the extent of the business. Low rates of transportation and general facilities. Visitors welcome at our establishment.

Ranch 2 miles west of Keota, Keokuk Co., Iowa, on the C. R. J. & P. R. R.; 15 miles west of Washington, Ia. SINGMASTER & SONS, Keota, Keokuk Co., Iowa.



JOHN CARSON,  
Winchester, Kansas  
Importer and Breeder of  
Clydesdale & Percheron-Norman Horses.

On for stock for sale. Also some fine Grades. Correspondence solicited and satisfaction guaranteed. I have some Jacks for sale.

### River Side Stock Farm.



DEGEN BROTHERS, Ottawa, Ill.,  
Importers of NORMAN HORSES. Large selection of imported stallions and mares—50 head imported this season. We are also breeding full-blood and high-grade Normans. Having purchased the old State Fair Ground, we are fitting up one of the best sale barns and breeding establishments in the State, and will be pleased to show our horses to visitors. Correspondence invited. DEGEN BROS., Ottawa, Ill.

—175 HEAD OF—  
IMPORTED CLYDESDALES  
Now on Hand.



The largest importer of Clydesdale horses, the largest breeder of pure Clydesdales—37 Mares now in breeding. Moderate prices. No equal opportunity can be found elsewhere to buy matured Stallions or young Stallions and Mares, all sizes. Persons invited to examine the stock. Correspondence invited. For particulars, call on or address:

ROBERT HOLLOWAY, Alexia, Ill.



CRESS BROS.,

NORTH HILL STOCK FARM, Washington, Tazewell Co., Illinois. Importers and breeders of Clydesdale, English Draft and Norman horses. With our recent addition of a large importation August 20th together with those previously on hand, have now one of the finest studs in Illinois. CLYDESDALES made a specialty. Quite a number of them have distinguished themselves both in Europe and America as prize-winners this season. All are superbly bred. Visitors welcome, and all parties in need of such high-class stock would do well to give us a call and save money, as we will convince you when you call. Send for catalogue. Reasonable prices. Terms easy.

Don't forget to get the  
Fire Insurance, Mutual, White  
Iron, or hair on head made in 24 or  
30 days. No injury. Easily used,  
fills the world. 2 or 3 Page done  
the work. Will prove it or forfeit  
\$100.00. Free postage with directions mailed and postpaid 25 cents. 2 for 50  
cents, stamps or silver.

A. L. SMITH & CO., Agents, Palestine, Ill.

THE STRAY LIST.

HOW TO POST A STRAY.

BY AN ACT of the Legislature, approved Feb 27, 1886, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker up, to the KANSAS FARMER, together with the sum of fifty cents for each animal contained in said notice. And such notices shall be published in the FARMER in three successive issues of the paper. It is made the duty of the proprietors of the KANSAS FARMER to send the paper free of cost, to every county clerk in the state to be kept on file in his office for the inspection of all persons interested in strays. A penalty of from \$5 to \$40 is assessed to any failure of a Justice of the Peace, a County Clerk, or the proprietors of the FARMER for a violation of this law.

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

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

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

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

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

If such stray is not proven up at the expiration of ten days, the taker-up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive or cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered, also he shall give a full description of the same and its cash value. He shall also give a bond to the state of double the value of such stray.

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

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

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

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

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

They shall also determine the cost of keeping, and the benefits the taker up may have had, and report the same on their appraisal.

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

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

Strays for week ending March 11, '85.

Jefferson County—J. R. Best, Clerk.

HEIFER—Taken up by J A Gorham, of Winchester, Feb 18, 1885, one 2-year-old red and white heifer, no marks or brands visible; valued at 15.

Riley county—F. A. Schermerhorn, clerk.

STEER—Taken up by G W and H J Earl, of Zeandale, one yearling roan steer, under-bit in left ear, two slits in right ear.

Miami County—J. C. Taylor, Clerk.

STEER—Taken up by John Jenkins, in Wea tp, Feb 10, 1885, one 2-year-old past steer, color black with line back, white on belly, legs white and black; valued at \$18.

COW—Taken up by J B Palmer, in Marysville tp, Jan 26, 1885, one roan cow, 8 years old, no marks or brands; valued at \$25.

Bourbon county—E. J. Chapin, clerk.

COW—Taken up by John N Post, of Timber Hill tp, one red and white speckled cow, about 10 years old, crop off left ear, branded O or C on left hip; valued at \$20.

PONY—Taken up by P T Bledsoe, in Marion tp, one dark bay mare pony, 10 years old, 15 hands high, medium flesh, blind in left eye, scar on right hip; valued at \$80.

Allen county—R W Duffy, clerk.

STEER—Taken up by Geo McLaughlin, in Marmaton tp, Feb 20, 1885, one yellow and white steer, one year old, no marks or brands; valued at \$10.

Montgomery county—H. W. Conrad, clerk.

STEER—Taken up by Will Hibbard, of Louisa tp, Feb 14, 1885, one 2-year-old red steer, branded L on left hip; valued at \$20.

Johnson County—Henry V. Chase, Clerk.

COW—Taken up by W K Allen, of Lexington tp, one pale red line-back cow, about 8 years old, black around the eyes, end of tail black, white under belly; valued at \$18.

Strays for week ending March 18, '85.

Reno county—W. R. Marshall, clerk.

COLT—Taken up by Vincent Baker, in Loda tp, January 28, 1885, one fair-size black horse colt, few gray hairs in forehead, 10 months old.

Strays for week ending March 25, '85.

Lyon county—Roland Lakin, clerk.

FILLEY—Taken up by J T Kirkendall, in Emporia tp, Feb 14, 1885, one 2-year-old iron-gray filley, white face; valued at \$50.

HEIFER—Taken up by A P Walstrom, in Waterloo tp, one roan yearling heifer, white on belly, no marks or brands; valued at \$12.

2 STEERS—Taken up by E J DeLong, in Tremont tp, Dec 5, 1884, two red and white spotted steers, one a yearling and one 2-year-old, no marks or brands; valued at \$25 and \$30, respectively.

STEER—Taken up by J W Morgan, in Fremont tp, Feb 19, 1885, one light roan yearling steer; valued at \$25.

Jefferson county—J. R. Best, clerk.

STEER—Taken up by Richard Spence, in Delaware tp, Nov 1, 1885, one light red steer, some white spots on sides, star in forehead, no marks or brands, 1 year old spring of 1884; valued at \$15.

Osage county—C A Cottrell, clerk.

HEIFER—Taken up by J W Nicolay, Pop Corn P O, Feb 9, 1885, one light roan heifer with red ears, no marks or brands; valued at \$15.

Wabaunsee county—H. G. Licht, Clerk.

STEER—Taken up by Margaret Krinitz, P. O. Blumark, March 4, 1885, one yearling steer, under-bit in left ear, dim brand on right hip not discernible; valued at \$10.

Brown county—G. I. Prewitt, clerk.

STEER—Taken up by F Cashman, in Powhatan tp, one red steer, 1 year old, white spot in forehead, no other marks or brands.

Greenwood county—A. W. Hart, clerk.

STEER—Taken up by Wm Launders, in Eureka tp, March 2, 1885, one white 2-year-old steer, crop and under-bit in right ear, ears light yellow. Light yellow spots on sides of neck and on shoulders; valued at \$20.

PONY—Taken up by W O Claycomb, Salem tp, March 2, 1885, one brown mare pony, 13 or 14 hands high, heavy mane and tail, branded on left hip and shoulder with an indistinct brand supposed to be a ship anchor.

HEIFER—Taken up by John Willis, in Bachelor tp, Feb 7, 1885, one red yearling heifer, with white on face and belly, some white on tail, no marks or brands; valued at \$10.

STEER—Taken up by D Cravens, Bachelor tp, Jan 2, 1885, one roan-speckled yearling steer, white on back and belly, no marks or brands; valued at \$15.

CATALPA GROVE Fruit Farm and Nursery.

CATALPA and RUSSIAN MULBERRY TREES and Seed; a large variety of Strawberry, Blackberry and Raspberry Plants; NIAGARA GRAPE and MARLBORO RASPBERRY. Send for price list. D. C. BURSON & CO., Topeka, Kansas.

50 HIGHLY-BRED SHORT-HORNS At Public Sale, Dexter Park, Chicago, Illinois, Friday, April 17th, 1885.

Send for Catalogue. Address, F. J. BARBEE, Paris, Bourbon Co., Ky.

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I offer for sale, on reasonable terms for payment, the following described property:

3,500 BEST GRADE OF MERINO SHEEP—All bucks and ewes. Have been well wintered, are healthy and in fine condition.

75 HEAD THOROUGH-BRED DURHAM COWS and Bulls—All pedigreed and of best strain.

250 HEAD OF GOOD NATIVE GRADE COWS. 25 HEAD OF GRADE BULLS.

50 HEAD OF HORSES. All of said stock can be seen on Rock Hill Ranch, ten miles west of Washington, Kas.

Prices and terms can be had from the undersigned at Central National Bank, Topeka, Kas. EDWIN KNOWLES.

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Just arrived from France, added to my stock of Norman Horses, which now numbers upwards of 100 HEAD, from 2 to 5 years old. Parties wishing to purchase first-class stock will do well to call and see my Normans before purchasing elsewhere. Prices and terms to suit purchasers. All of the above stallions were selected by myself in France this season. (Mention this paper.)

JAMES A. PERRY Importer and Breeder of Norman Horses,

River View Stock Farm, Wilmington, Ill. Fifty miles south of Chicago, on the Chicago & Alton railroad.

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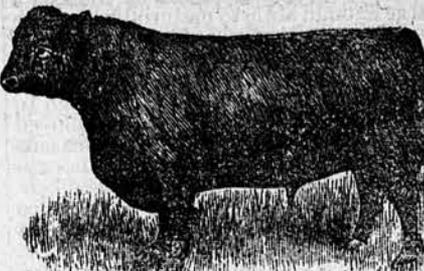
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—AT— Riverview Park, Kansas City, Mo., Tuesday, April 14th, 1885,

The Property of JAMES CUNNINGHAM & SON, Dalbeattie, Scotland. These cattle have been selected with special reference to the Western market. They are all recorded in both the Scotch and American Herd Books, and embrace some of the best Galloway blood. Among the Bulls being the prize-winners VINDICATOR OF CLOSEBURN 1876. BRITISH HERO 1877. MARKSMAN OF DEUMLAURIG 1878, and many others from prize-winning ancestors. The Heifers are descended from some of the choicest strains, and are all in calf or with calf at foot. Stock now on exhibit at Riverview Park, Kansas City, Mo. Catalogues ready. Address

WALTER C. WEEDON & CO., Live Stock Exchange, Kansas City, Mo.

Col. L. P. MUIR, Auctioneer. TERMS OF SALE:—Cash or approved bankable paper. N. B.—Remember it was a GALLOWAY which gained highest honors on the block at New Orleans.

PUBLIC SALE —OF SIXTY HEAD OF— VALUABLE SHORT-HORN CATTLE

—AT— BRECKENRIDGE, MO., 8 miles east of Kansas City and 6 1/2 miles east of St. Joseph, on the Hannibal & St. Joseph R. R., on

TUESDAY, APRIL 7, 1885,

ON OUR FARM, one mile east of town, under tent. The offerings will consist of 47 females and 13 young bulls, descendants of Imported Rose of Sharon, Bracelets, Rosemary Goodness Alice, Maud (Craggs), Maid Marions, Agatha, Red Rose, Branch Young Mary, Phyllises, Louans, etc., crossed up with some of the best sires in America. For individual merit, color and breeding they are hard to beat. Bulls extra good and of suitable age. Lunch at 11 o'clock. Sale at 12:30. Conveyance free to farm. Catalogues now ready, with full particulars as to terms and full, noted pedigrees, which can be had on application to

H. D. AYERS & SON, Col. L. P. MUIR, Auctioneer. BRECKENRIDGE, MO.

COMBINATION SALE —OF— WELL-BRED SHORT-HORNS,

On Wednesday and Thursday, April 1st and 2d, 1885. At the Fair Grounds, Peabody, Marion County, Kansas.

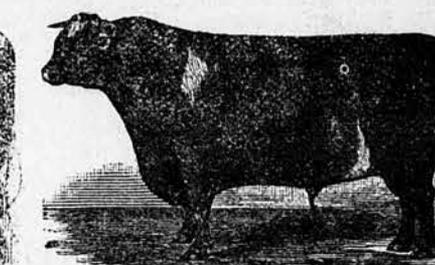
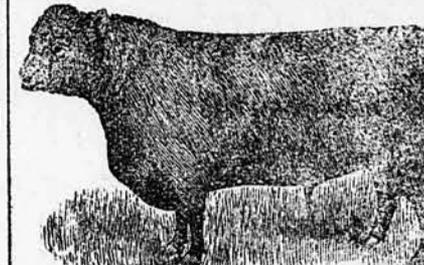
The offerings will consist of 70 Splendid Young Cows and 30 Extra Young Bulls of the popular and useful sorts. The cows will have calves, or be in calf, by the prize bull RAVENSWOOD LAD #763 (included in the sale), the \$1,600 IMP. GRAND DUKE OF BARRINGTON 3d (4644), and others equally good. TERMS:—Cash; but a credit of 12 months will be given to responsible parties giving good, acceptable bankable notes, at 10 per cent. interest. Catalogues on application after March 15. In connection with the sale a large exhibition of breeding stock of all kinds.

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# The Busy Bee.

## Pasturage for Bees.

Paper read by O. O. Poppleton, of Iowa, before the International Bee Congress at Chicago recently:

In considering this subject, four questions naturally arise: 1. Is it desirable to have more pasturage for our bees than nature gives us without special effort on our part? 2. Is it possible to increase the growth of honey-yielding plants by efforts of our own? 3. Can we obtain sufficient results from such efforts, to pay us for the labor and money expended? 4. What are the particular plants, if any, that it will pay to raise for honey? As the first two questions will undoubtedly be answered in the affirmative by all, they, therefore, need no discussion.

When in this essay I speak of artificial pasturage, I mean all those honey yielding plants not usually found growing without having been especially planted for that purpose. In considering this matter of artificial pasturage, the first thing to do, is to take into account the probable amount of such pasturage necessary for effectiveness, and I know of no other way to do this than to examine the extent of our natural resources. I have observed the bees from my apiary, consisting usually of between 100 and 200 colonies, being nearly or quite as numerous on white clover five miles from home as they were in the immediate vicinity of the apiary, thus showing that the bees glean from an extent of country with a diameter of at least ten miles, or about 50,000 acres, in round numbers. This is of course not all covered with clover, but as at least one-tenth of it is so covered, leaves as a very low estimate, the equivalent of some 5000 acres completely covered with white clover. I sometimes obtain 10,000 pounds of surplus white clover honey, or an average yield of 2 pounds per acre. The total yield per acre that might be obtained with just the right number of bees for the capacity of the field, is, of course, very uncertain, but I doubt whether over one dollar's worth of honey could be obtained from each acre, under the most favorable circumstances, without counting cost of apiary labor, etc., in obtaining that amount, or allowing for a reduced yield when circumstances are unfavorable. Again, there are certainly not less than 5,000 basswood trees within reach of my bees, and the largest crop of basswood honey I have ever obtained in one season was 4,000 pounds, or less than one pound per tree.

Of course these calculations are necessarily very crude ones, but they show unmistakably that this subject of artificial pasturage is not one of an acre, or a few acres, but one involving large areas of land, and entirely forbids the use of high-priced, valuable land for this purpose. Again, plants that require cultivation must be discarded from our calculations, as any one can readily see by calculating the expense of caring for, say 80 acres, when planted to any of our most easily cared for crops. Neither do I think it can be made profitable to raise any plant for honey alone, that requires to be reseeded each year.

From the foregoing we would deduce the following rules or principles that must be observed if we would ever succeed in profitably raising plants for honey only, viz.:

1. Plants must be grown on large areas of ground, not simply on small patches.
2. Either barren or very low priced land must be used, as the results will not pay the rental of valuable farm land for this purpose.
3. Plants must be selected that will reseed themselves year after year.
4. They must also be plants that will retain possession of the ground on which they are grown, to the almost entire exclusion of other vegetation year after year without annual cultivation.
5. Plants used for this purpose should not be very troublesome weeds, especially if liable to spread on neighboring farms.

Now comes the practical question. Have we any plant or plants that possess the proper qualities? Each one will have to answer this question for his own locality, but for mine, I am very unwillingly forced to answer, no. I have tried several, especially figwort and sweet clover, and they are both signal failures in those qualities described in rule 4.

While I have been very reluctantly

forced to the conclusion that it is not practicable to raise plants or trees on a large enough scale to materially increase our crops of honey, I think it probable that we can increase the growth of figwort, sweet clover, etc., in waste places in our neighborhoods, enough to keep the bees at least partly employed during what would otherwise be seasons of almost absolute dearth of honey-producing plants. No experienced bee-keeper needs to be told the advantages of this, even if little or no surplus honey should be gathered at these times. We now come to the consideration of a different class of plants, viz.: those that are valuable for purposes other than the honey they produce, such as alsike clover, buckwheat, etc.

I would place buckwheat at the head of this class for value, it being one of our best paying crops for its grain, wherever it can be successfully grown, and whatever honey it yields is so much clear gain, but unfortunately its yield of honey is very uncertain. A few years ago I reported at one of our conventions, that I had obtained about 6,000 pounds of honey from some 25 acres of buckwheat. As I only estimated the area of the crop grown within 2 1/2 miles of my place, and later observations have convinced me that bees profitably gather from a much greater distance than that, therefore, the number of acres from which the crop was gathered was greater than I stated. This was the largest amount of buckwheat honey I have ever obtained in one season, while the smallest has been some less than 2,000 pounds with at least 100 acres of buckwheat within three miles of me.

It is a mistake that this plant can be sown so as to make a succession of honey crops. No matter how fully it may be in bloom, it usually commences to yield honey about August 10 or 15, the earliest and latest it has ever commenced to yield with me, having been the 5th and 20th of that month respectively. Prof. Cook reports having once seen it yielding honey much earlier in the season, but this single instance makes no rule. Alsike clover also yields honey largely, but its coming at the same time white clover does, lessens its value materially. Its high crop value, however, for either hay or seed, makes it one of our most profitable honey plants. I have tested mowing it when first commencing to bloom, so as to retard its full blooming until after white clover, with partial success; but I find the following drawbacks to a full success: Too large an area has to be handled to afford a material help, and a partial or entire failure, if the weather should be very dry. I have, therefore, abandoned this plan after experimenting with it two seasons.

To conclude, I cannot say that I have much faith in our being able to materially increase our honey resources, except by such means as scattering seed of honey plants in waste places in our neighborhoods, by inducing our neighbor farmers to raise some or all of the honey-producing crops, and by selecting those kinds that produce honey, whenever we set out shade trees on our premises.

The first importation of Hereford cattle was made by Henry Clay in 1817.



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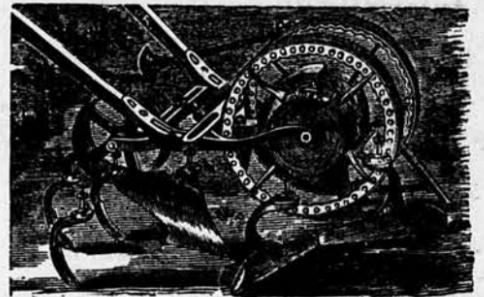
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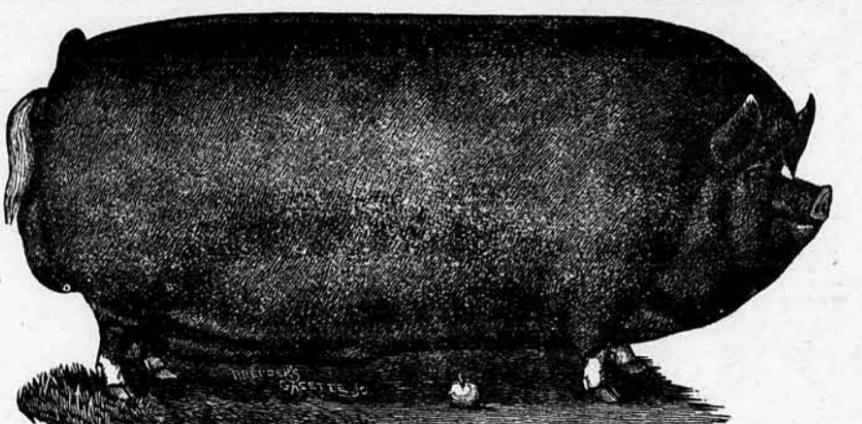
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