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Handling Sorghum Cane.

Economy in production is the secret of successful manufacture. The great problem before sugar and sirup makers in Kansas and, indeed, the whole country is, How to cheapen production. In our article on Sugar-making recently, we referred to matter that had appeared in the Junction City *Tribune*. The editor of that paper is an experienced man. He has given this subject attention, and in the matter referred to has presented some very good thoughts.

Our suggestion is this, he says: "The men cutting the cane should be required to cut their cane low and to lay it in nice piles, butt ends as nearly even as possible. Four rows of cane must be put into one row of piles, so as to give room for teams to pass between the rows of piles, and to make the piles of respectable size. When the cane is thus cut and laid in piles, the piles are to be cut in two, leaving one-third of the length of the stalk with the tops. The butt ends, now, consisting of a little more than half the length of the canes, are ready to be hauled to the mill. The tops are to remain untouched in the field until the busy season is over. They can then be stacked as feed for stock. When the butts reach the mill they must be thrown on to a stripping and sorting platform, near the feeding apron. This platform, for ten strippers, should be forty feet long, six or seven feet wide and about three feet high. It is made of common fencing boards placed longitudinally about eight or ten inches apart, nailed on supports. The cane is to be placed crosswise on the platform, with the small ends of the cane toward the traveling apron. The arrangement for stripping consists of a board twelve inches wide placed on edge, running the entire length of the platform, on the side of the platform next the feeding apron. It is firmly fastened to uprights, with the lower edge resting on the platform, making the upper edge about four feet high. In the center of this board one and one-half inch holes are bored four feet apart. Each hole is designed for the use of one man. Four stout wires, or small iron rods, are to be drawn across each hole so as to cross each other and form a half-inch mesh at the center of auger hole. The strippers then take their positions between the platform containing the cane and the feeding apron. The left arm is to reach over the stripping board, and the left hand is to grasp one cane and to thrust the point through the mesh formed by the wire. The right hand grasps the points and the stalks are jerked through the mesh and dropped upon the feeding apron. A little practice will enable men to be very expert. The cane will come through free from fodder, and scraped clean of trash and insects. All small, unripe and worthless stalks must be rejected and dropped through the open platform among the fodder. Nothing but the select and clean stalks must find their way to the mill, and forty tons of such material will yield more good sirup or sugar than four times the weight of tops, fodder, worthless stalks, and chinch bugs that I have seen passing through some large mills, at the rate of two hundred tons per day. The platform here described, forty feet long, will accommodate ten men. Another one may be made on the other side of the apron the same length. Twenty men, after a little practice, ought to select and strip from sixty to eighty tons of clean stalks per day, which will yield an immense

quantity of clean, rich juice, needing no defecation or chemical treatment whatever for good sirup, which will granulate if kept at the proper temperature. The fodder falls beneath the open platforms, and must be removed by the men and teams that deliver the cane.

"At every large establishment that we have visited it has been objected that it is too much work to strip and select the canes! Let us figure a little. In the first place we leave one-third of the weight and bulk of the crop in the field in piles, after cutting the tops off, which the men and teams do not touch. That saves one-third of the work of hauling, and the handling of the short six-foot canes is much more convenient and speedy than handling the long untopped canes. In the second place, we load the rollers with less than one-half the bulk of matter that is usually crowded into them, and the drainage of juice from the bagasse is much more perfect. Third, the removal of bagasse from the mill is a much lighter job than on the fodder feeding plan. Fourth, the strain on the mill and engine is much less than on the fodder plan. And, finally, we have a richer, cleaner and purer sap, making its treatment very much cheaper, quicker and more satisfactory. All these items put together abundantly show that the selecting and stripping of canes, allowing no improper material to pass through the mill, is by far the cheapest plan that can be pursued.

"Men who have never tried the experiment will be surprised to find how fast cane properly topped, just above the middle, can be relieved of the remaining fodder by men with thick leather gloves on. The left hand grasps the stalk near the center. The right hand by a few deft strokes passing down the stalk relieves it of the fodder. But it is not so nicely scraped and cleaned of trash and insects as when drawn through the iron meshes.

"On this plan of selecting and cleaning the canes, very little treatment of the sap is needed except speedy boiling in shallow vats, and faithful skimming. Where steam is used for grinding, the boiling should be done by steam with copper or galvanized pipes. We once saw a large steam factory at Decatur, Illinois, which turned out a most beautiful, light straw-colored sirup by the use of copper pipes in a broad wooden vat, about twelve by eighteen feet in size. The only treatment the sap received besides quick boiling and thorough skimming, was being passed through a clean barrel half full of clean hay or straw, to relieve it of mechanical impurities.

"For the further illustration of the subject and for general encouragement, it may be stated that sugar-making in Louisiana became a success only after forty years of experiments and failures. They were finally compelled to assort the canes, using only the lower half of the riper canes. The upper half of the canes and the greener canes make a tolerable molasses. We should profit by the experience of others. There is no well grounded cause for discouragement in Kansas on the sugar question. It is one of the surest and best crops that the Kansas farmer can raise, if properly managed. There should be two or three good steam factories in every county, buying cane by the ton from the farmers, or doing custom work."

It many times falls out that we deem ourselves much deceived in others, because we first deceived ourselves.

Growing Pigs for Profit.

A correspondent of the *Country Gentleman* gives his ideas thus:

For nearly two years breeding pigs and making pork has paid our farmers as well or better than anything else. Grain has been low, and for farmers who grew potatoes extensively it has been possible to keep pigs in growing condition with refuse that would otherwise be wasted, and thus make a large amount of pork with comparatively little grain. We cannot afford to make pork on corn alone, and I doubt whether in the history of western New York there were ever three years in succession when exclusive corn feeding to hogs realized to the feeder the market value of the grain. In the olden times store hogs were allowed to run in clover during the summer, with slops and a little other feed, and then fattened in the fall on corn in the ear. In this way, by counting the clover as nothing, an apparent profit was figured out, but it did not pay, nevertheless.

My own idea is that pasture and clover are the dearest feeds that pigs can have. If fed otherwise, as they should be for thrift, pigs will eat very little clover, and wherever they trample it down nothing else will touch it. They can be fed so little beside as to make clover an important part of their rations, but that is not a profitable way to keep any kind of stock. The gain from pasture turned into pork, with no other feed, is no more than two dollars per acre; more often not half that. We can afford this in orchards for the benefit of the fruit, but nowhere else. Even in orchards we had better stock so heavily that the bulk of the feed must come from the swill pail.

Few farmers appreciate the value of roots, especially beets and mangold-wurtzel as feed for pigs. The quantity that can be grown on a small piece of ground is greater in amount and more valuable than the grass. Where potatoes are largely grown for market a considerable portion of the tubers will be under-sized or scabby, and these are usually of little value. These unsalable potatoes cooked and mixed with mill feed and corn meal will make pork as rapidly as more costly rations of entire grain, and at much less expense. When apples are as abundant and cheap as this year, the poorer fruit can be used in the same way more profitably than it can be sold.

One of my investments this fall is a small steamer for cheaply cooking apples, pumpkins, small potatoes and other refuse for the pigs. It has not cost as much as I expected, and I believe it will pay better interest than anything else I have on the farm; because it will enable me to save so much that would otherwise go to waste. I look back now with regret to the bushels of potatoes that were fed raw to stock, doing little good, when at so small an expense they can with a steamer be changed to excellent food for pigs.

One of the dangers in breeding pigs is in getting too many in proportion to the amount of available feed. A sow bred twice a year, as she should be, will probably furnish fifteen or twenty porkers. It don't take long to stock up at this rate, and unless a farmer calculates closely there will be overstocking before he is aware. The majority of farmers are too slow in selling surplus stock, and more especially of young pigs. I never knew a time when young pigs did not sell for more than they were worth. When pigs five to seven weeks old sell at

twelve to twenty shillings each, the buyer is obliged to do some feeding to bring the pigs up to the price he has paid. A sow kept at breeding and her pigs sold as soon as they are ready to wean will pay her way more surely than any other stock kept on the farm. Holding the pigs until old enough to fatten for the butcher is more risky business. Whether it will pay, must depend upon the prices of grain and pork.

To get spring pigs large enough for profitable feeding in the fall, they should be farrowed in March or early in April. The sows intended for breeding should now be with pig; or, if not, no time should be lost in getting them in that condition. The early pigs will bear heavier feeding better in the fall than those coming later, for up to a weight of 150 to 200 pounds, according to breed, pigs cannot be forced without injury to their digestive organs. They should be kept in as rapid growth as possible until growth is nearly completed. The advantage of Eastern farmers growing a variety of crops is that we can do this more cheaply than the Western farmer can who depends on feeding corn to his pigs at all stages of their growth.

Kansas Seed House.

Conspicuous among the successful business institutions of the State is the well known Kansas Seed House of F. Barteldes & Co., Lawrence, Kas. Twenty-four years ago the firm commenced operations with a limited capital, having had a thorough experience as seed growers, and from this small beginning they have built up a business in their line which is not surpassed by any other seed house west of the Mississippi river. All this has been accomplished by furnishing reliable, fresh and genuine seeds of all kinds that are adapted to the soil and climate of Kansas and by selling at reasonable prices.

A representative of the *FARMER* called at their establishment and found all hands busily engaged in preparing for mailing their edition of 40,000 as fine seed catalogues and manuals as was ever sent out by any seed house in the country. The catalogue contains 96 pages replete with desirable information, and is handsomely illustrated and is sent free to all applicants who mention this paper.

The house contains 20,000 feet flooring. The retail department occupies the first floor, and the second floor for wholesale garden seed orders. The cellar contained from 2,000 to 3,000 bushels of onion sets of different varieties, notable among which is the Kansas multiplying sett, one of the best sorts grown. The warehouse was filled with 3,000 bushels of Kentucky blue grass, 1,000 bushels red top, 1,000 bushels red clover, 1,000 bushels alfalfa, 3,000 bushels orchard grass, 1,000 bushels English blue grass, 1,000 bushels Johnson grass and vast quantities of grass, field and tree seeds.

It is with pleasure that we call attention to the ad. of the "big cabbage," and can commend the firm of F. Barteldes & Co. to the public for their patronage. Be sure to send for their catalogue.

A little boy in Georgia, who wrote to Santa Claus for a pony, was wise enough to add: "Poscrit. If he is a mule, Ples ty his behine legs."

"There, now!" cried a little girl, while rumaging a drawer in a bureau; "grandpa has gone to Heaven without his spectacles!"

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.
 March 18, 1885—A. H. Lackey & Son, Short horns, Peabody, Kas.
 April 23—Col. W. S. White, Sabetha, Kas., Short-horns.
 May 20, 1885—Powells & Bennett, Short-horns, Independence, Mo.
 May 22 and 23—Jas. E. Richardson, Kansas City, Mo., Short horns.

The Live Stock Department of the New Orleans Exposition.

To the Breeders of Live Stock: In order that I might address this letter intelligently concerning the arrangements for the exhibition of live stock at the New Orleans Exposition, I visited the grounds of the Exposition at that city last week. The Government Building, Main Building, Horticultural Hall and Art Hall are complete in structure, and the work in the inside preparing for exhibits is being pushed as rapidly as possible. These buildings mentioned are very large, and all the space therein has been applied for, thus insuring a grand and interesting exhibition in every department. Other large buildings are in course of erection for exhibits.

The Department of Agriculture, which comprises all the exhibits of machinery used for agricultural purposes and the live stock exhibitions, is under the management of Hon. Geo. Y. Johnson, superintendent, Lawrence, Kas. The advanced condition of the preparations in his department shows him to be a man of great executive ability, and, during the hurry and excitement always attending the opening of such exhibitions, he is ever ready in the most courteous manner to give information. In all these qualifications as chief of a department he is ably assisted by Col. Edward Haren, of Kansas City, Mo. No efforts will be spared by these gentlemen to assist exhibitors in any way and make them feel at home as soon as they reach the grounds—a kindness always appreciated and seldom forgotten.

The barns for the exhibition of live stock are located about three hundred yards from the Main Building and a like distance from the Government Building. Between the latter and the barns a fine track is being prepared for exhibiting stock. The barns are six in number, handsomely built and painted, and located in blocks of two in width and three in length. Each is 400 long by 60 feet wide. A row of well-built stalls and pens is on each side, and a walk-way of 36 feet wide through the center. They are well lighted by windows during the day, and, as the Exposition will be open until 10 o'clock each evening, there will be placed along the center of each barn eighteen electric lights. A portion of one of the barns is to be used for feed storage, in which corn, oats, chop feed and hay will be sold at cost prices. All grain and hay will be taken from the Northern States. I noticed a lot of very fine timothy hay in store when I was there. Good water will be plentiful at convenient places in all the barns. Sawdust and shavings will be used for bedding, which is furnished free.

The barns will be kept clean as a sanitary measure, as well as for the enjoyment of visitors. So far as I can form an opinion I see no cause for fear of disease. The temperature when I was there was that of May in the Western States, and I am informed that no unpleasant heat for Northern man or beast is felt before the month of May. The Exposition grounds are close to the Mississippi river, and live stock shipped by boat will be landed within a quarter of a mile of the barns. Every convenience which will add to the comfort of stock

and the accommodation of exhibitors has been carefully considered and adopted. Exhibitors will have the privilege of selling stock at private sale, to be delivered at the close of the exhibition, and Mr. Johnson, superintendent of agriculture, directed me to inform breeders of live stock that those who might wish to take stock there to be sold at public sale will be furnished stalls and pens; the sales advertised and conducted under the manager of the department, at a charge only to cover expenses. All desiring to make such sales should notify Mr. Johnson as soon as possible.

Throughout the Southern States there is now more than ever before a desire to introduce the improved breeds of live stock. In cattle the demand is stronger for the dairy breeds than for beef breeds. The breeders of dairy cattle have never had such an opportunity of letting the people of the Southern States see their stock, or such available means of extending their sales in that portion of the country.

The exhibition of horses will open Dec. 20, 1884, and close Jan. 25, 1885. That of cattle, sheep and swine opens Jan. 31 and closes March 1, 1885, and there are large cash prizes in all classes.

I will furnish live stock premium lists from this office to all who may apply; or the same may be had by addressing George Y. Johnson, Department of Agriculture, Exposition, New Orleans, La.

SAM'L DYSART,
 Supt. Division E, Cattle.
 Franklin Grove, Ill., Dec. 15, '84.

Cattle and Dry Cornstalks.

The forgetfulness of men is equaled only by their carefulness. Every year this paper throws out warnings to its readers to guard them against the dangers of letting their cattle eat dry cornstalks; but we are in receipt of letters every week from farmers that take and read the paper regularly, complaining on this subject. We must say, however, in some cases the writers believed they were exercising sufficient care.

Cattle need coarse feed and a great deal of it. They are made up for it. Nature so designed, or the animal would not have been supplied with more than one stomach. The ox and his kind are provided with four different departments of stomach. When coarse food is first swallowed it is but partially masticated. It is sent to the first stomach or paunch in nearly the same condition that it was when taken into the mouth. As soon as it can be put in shape for swallowing it is gone. The natural order is to return it to the mouth again at a more convenient time for mastication. This is the cud. It sometimes happens that animals eat greedily, piling the paunch full in a very short time and impaction follows. This occurs with green food occasionally, but there is always more or less gas in such cases. With dry food, the eating is necessarily slower; but, in the case of corn-stalks, which are absolutely indigestible, unless there is other and better food mixed with them in the paunch, and unless there is, also, plenty of water mixed with them, impaction follows. The dry stalks are no better than so many pieces of tanned leather. They go into the stomach in rolls made by the tongue and wet just enough to slip down the gullet. Once in the stomach, they need water and receive none. No satisfying sensation comes from them and the animal continues to eat and gorge its pauch. The stuff is too dry to be brought back to the mouth as cud; it is too coarse and dry to be passed to the third stomach; it cannot be dislodged by any natural process; it is a

case of impaction of the stomach, and the animal must die if not relieved.

As to remedies we can do no better than reprint the recommendations of Dr. Holcombe, State Veterinarian, which appeared in the FARMER a few weeks ago:

"Treatment should be, first: *Preventive*—Keep cattle out of the stalk fields if possible, and feed only good hay and sound corn. If necessity compels the use of the stalks, the cattle should only be turned into the fields after they have satisfied their hunger in large part by eating other food. Allow plenty of salt and an unlimited supply of good water."

In addition to what Dr. Holcombe prescribes, the FARMER will suggest that cattle ought not to remain long in the stalks at any one time. Let them fill themselves on other and better feed; then, after browsing in the stalks a short time, turn them out. The length of time which would be safe depends on the nature of the feed they ate before going to the stalks and their greediness in the stalk field. Exercise good judgment, understanding the nature of the danger. A small feed of stalks with plenty of water will do no harm. The things to remember are, (1) let the animals feed on other food before entering the stalk field; (2) do not let them remain in the stalks long enough to cram the paunch with this dry, woody stuff; (3) let them have water often. If there are calves in the herd, great care is needed to see that they get all the drink they want.

"*Curative treatment*—Consists in the employment of full doses of physic. A dose for a full-grown animal should consist of: Epsom salts, 1 lb.; ginger, 2 ozs.; nux vomica, 2 drams. Dissolve in three quarts of water and give as a drench. Repeat the dose in twenty-four hours, with a pint of raw linseed oil, if the first does not act. One part of Epsom salts to three parts of salt may be fed to cattle with advantage when the food is very dry. One-third to one-half of the above dose is sufficient for yearlings. After the physic has operated, 3 drams of Cayenne pepper, 4 drams of saltpetre and 2 drams of aloes, may be given once or twice a day, dissolved in a pint of water, until recovery takes place."

In the convalescent state, feed soft and nutritious food. Ground oats, rye and corn, mill stuff, warm slops, etc., are good. The rough feed, whatever it is, ought to be very clean, and the finer it is the better—we mean short, as cut hay.

The Coming Sheep.

An Englishman understands the sheep as well as he does the horse and ox. Here is what one says on the subject above mentioned:

The philosophy of evolution and development appears to be supported by the history of our live stock. Those who have traced out the rise and progress, have also had to record the decadence and the fall, of races of cattle and sheep. The old long-horn, brought to perfection under the skillful management of Bakewell, waned and vanished under the superior qualities of the Short-horn. It would, indeed, be touching upon delicate ground to hint that this pet of the great ones of the earth could be displaced from her temple. All things, however, must come to an end, and exorbitant sums of money given by individuals for no special excellence except what exists, or is supposed to exist, potentially in the mysterious virtues of pedigree, savors of that luxury which precedes decay and dissolution.

The history of our chief breeds of sheep affords more than one instance of improvement and abandonment. Take, for example, the Leicester. Fifty years

ago this breed might appropriately have been said to "rule the roost." Now, except in a very few countries, and among a small minority of farmers, the Leicester has been supplanted. The Cotswold sheep is said to be going out, even upon his own hills, and does not seem to be spreading rapidly in any other locality. The South Down was to the short-wooled races as the Leicester was to the long-wools. Scarcely a breed was not improved by his touch, and for this reason alone the South Down will always hold a high position in the history of British flocks. Still it must be confessed that the South Down has ceased to be a rival for popularity with larger and more profitable, if less shapely, breeds of sheep.

One of the greatest advances in sheep breeding was made by Mr. Druce, of Eynsham, when he successfully crossed the Hampshire Down and Cotswold, and thereby produced the Oxford Down. The rise of this remarkable breed has been rapid, and it seems likely to extend further in its geographical distribution. An unfortunate predisposition to foot lameness is one of the weakest points in this favorite breed of the midlands, and a slowness in coming to maturity may possibly be also recorded as a frequent mark against him.

The last breed we have to mention is one which deserves very special mention. He has not as yet attracted a large share of public notice. Columns of show reports have been lavished upon Leicesters and South Downs, but scant notes have been usually thought enough for the Hampshires. They have not been pushed up by the great. They have, however, been long carefully bred by a large number of first-class tenant farmers around Salisbury, and tended by a good and faithful race of shepherds. We venture to assert that the Hampshire sheep is not sufficiently known and appreciated. There is no race in England, or in the world, which can vie with it in the production of large sized lambs of from six to eight months old. Shropshire lambs are simply "nowhere" to them.

Let any unprejudiced person attend the ram sales in July, near Salisbury, and if he has never before seen a Hampshire lamb, he will be astonished. There he will see lambs which present you with a pound weight per quarter from the day they were born. No one thinks of using shearing rams, as they would be too heavy and unwieldy, if not used as lambs. As yet the Hampshire breed has been insufficiently represented by our show yards, but we expect soon to see a change in this particular. Such a breed cannot be comparatively hid from public notice, but must come out. His hardihood, size and quality of mutton are unsurpassed. He thrives between hurdles and never asks for greater liberty. He is extraordinarily docile and intelligent, and can be brought into such training that a word from the shepherd suffices to guide and control his movements.

In the district in which this splendid race of sheep are found in greatest perfection, it is not uncommon to realize as much as 60s. or 65s. per head for lambs of from 7 to 8 months old. It is in those parts customary to sell off the wether lambs and retain the ewe lambs and ewes as winter stock. If, instead of selling the lambs at the autumn fairs, they were kept on through the winter and sold out, as is the case with most other breeds of sheep, at 10 or 13 months old, they would make prices which we are confident in maintaining that no other race of sheep could touch. These are strong points in favor of the Hampshire sheep, insuring him a brilliant future, and, in a certain sense, the title we have placed at the head of these remarks.

In the Dairy.

Brief Rules for Dairying.

The following rules are copied from a pamphlet recently issued by Dr. J. B. Marquis, of Norwich, N. Y., describing his process of butter and cheese making?

BUTTER MAKING.

1. Decide your line of dairying—butter or cheese, or both.
2. Select your cows according to the line of dairying chosen.
3. Test each cow separately, and reject all not suited to your line of dairying, or that fail in quality or quantity of milk.

4. Feed liberally, have pure water always accessible, and keep a mixture of equal parts of salt, ashes and sulphur, within reach of the cows.

5. Be sure your stables are thoroughly ventilated, remove all droppings immediately, and freely use absorbents and deodorizers—such as saw dust, dry earth or cut straw, never omitting a liberal use of plaster.

6. Be scrupulously clean in every particular, both in keeping the cows and in milking and handling milk.

7. By all means, avoid exposure of the milk to the hot sun and to foul air.

8. Air and cool your milk as fast as possible down to at least 70 degrees if you carry it any distance to a factory or creamery. Do the same if you make it into cheese at home, though you need not go below 80 deg., if made up immediately.

9. When milk is kept over night to be carried to a factory, the temperature should be reduced as low as 60 deg.

10. If milk is set at home for cream, the sooner it can be set after milking and the higher the temperature the better, as cream rises best and almost wholly while the temperature is falling.

11. Never reduce the temperature below 40 deg., as a lower temperature has a tendency to chill the product and injure its keeping quality, and it expands the water, rendering its relatively greater density less instead of increasing it. To go 5 deg. below 40 deg. would have practically the same effect as raising the temperature 5 deg., and to that extent retard the rising of the cream.

12. Skim as soon as the cream is all up, or so much of it as you wish to take from the milk.

13. Keep your cream, if not churned immediately, at a temperature of 64 deg. or below, but not below 40 deg.

14. Churn at such a temperature between 55 and 64 deg., as experience shows you is best. Conditions vary the temperature for churning.

15. Stop the churning when the butter is in granules about the size of wheat kernels.

16. Draw off the buttermilk and wash in clean water before gathering the butter, until the water runs clear. If one washing is in brine, it is all the better, as brine coagulates the cheesy matter, which dissolves and is then washed out.

17. Salt to suit customers, using none but refined salt made for dairy purposes. The best American salt is as good as any.

18. Put up in such packages as are demanded by your market. If for long keeping, pack in firkins, set in a cool, sweet place, and keep the butter covered with brine.

CHEESE MAKING.

19. Milk for cheese making—whether whole or partly skimmed—should be perfectly sweet.

20. Set your milk at a temperature of 84 deg. or above. Rennet is most active at 98 deg., or blood-heat, above which temperature should not be much raised. A temperature of 140 deg. will kill the rennet.

21. Add rennet enough to make a

firm curd in thirty minutes or an hour.

22. Cut this curd as soon as it can possibly be done without waste, and cut fine and finish at once.

23. Keep the temperature as evenly at 88 deg. as possible, until the curd is fit to dip and salt. Cheddar or cook in the whey, as preferred.

24. Practice alone can teach when to dip, something depending on whether a soft or firm cheese be desired.

25. The cheesing process depends a good deal on the relative per cent. of water to casein. If there is too little water the cheese will cure slowly and be dry, crumbly and have little flavor. If there is too much water, destructive fermentation will set in and the cheese rapidly decay, if it does not sour and leak.

26. An even temperature is indispensable for curing—as low as 65 to 70 deg. for whole-milk cheese, and as high as 75 to 80 deg. for skimmed—according to the degree of richness.

CLEANLINESS.

27. It is not possible to be too particular about cleanliness. But cleanliness, Governor Seymour says, is a comparative term, and what is clean to one is dirty to another.

28. Carefully brush the cow's udder; if it is befouled, wipe it before milking.

29. Keep all hairs and loose dirt out of the milk, that no filth may dissolve in it. No strainer can take out what is dissolved.

30. Use a fine, soft cloth strainer besides the wire strainer.

31. Keep your milk away from all contact with foul or disagreeable odors, as the fats absorb all odors and impart them to the product.

32. Wash in tepid water every dish, implement or utensil that comes in contact with milk or its products. Then scald in boiling water or with steam, after which rinse thoroughly in cold water and expose them to pure air (and sunshine if possible) until needed for use.

Look Out For Rotten Corn.

A Harper county correspondent wrote us last week on this subject, and although his letter was on the "copy hook," it did not get into type. This is what he wrote:

"Please caution farmers to pick all the rotten ears of corn, of which there seems to be an unusual amount this year, as some here are having much trouble with their cattle where it was left in the field. The cattle get stiff in joints, stagger, fall down and in some cases are unable to get up for weeks. One death of a heifer occurred yesterday by this cause. I thought the rotten ears worth 3 cents to burn, so picked it, and have no trouble, with my cattle in stalks all the time.

It pays to keep a poultry house clean. The droppings are very valuable, and the time employed at the labor of cleaning is well spent. Though not as valuable as Peruvian guano, poultry droppings are superior to every other article used for manure on the farm. Bulk for bulk, nothing but guano can equal it.

All farmers know that crossed fowls will lay when pure breeds sometimes fail, and that is sufficient proof that they know more than many of the pretenders. We advise all farmers, however, to use pure-bred cocks always. Crossing does not mean breeding at a risk with any and everything.

Market all kinds of poultry products as soon as they are ready for selling.

J. G. D. CAMPBELL, Junction City, Kansas, Live Stock Auctioneer. Sales made in any part of the United States. Satisfactory reference given.

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

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.

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

DEXTER SEVERY & SONS, Leola, 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 Hamilton, Kas., Prop'r. Herd numbers about 120 head. Bulls and Cows for sale.

ATAHAM 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 Poverty Hill Herd of Thoroughbred Short-horn 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.

OK WOOD HERD, G. S. Eichholtz, Wichita, Kas. Live Stock Auctioneer and breeder of Thoroughbred Short-horn Cattle.

Hereford Cattle.

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

E. S. SHOCKEY, Early Dawn Hereford Herd, Lawrence, Kas., breeder of Thoroughbred and High-grade Hereford Cattle.

CATTLE AND SWINE.

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

W. W. NELSON & SON, Centropolis, Franklin Co., Kas., breed pure-bred Poland-China Swine, Also Short-horn and Jersey Cattle. Stock for sale reasonable.

SHORT-HORN PARK, containing 2,000 acres, for sale. Also, Short-horn Cattle and Registered Poland-China. Young stock for sale. Address B. F. Dale, 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.

J. E. GUILD, CAPITAL VIEW STOCK FARM, Silver Lake, Kansas, Breeder of THOROUGHBRED SHORT-HORN CATTLE and POLAND-CHINA SWINE. Correspondence solicited.

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. Buck a specialty.

G. B. BOWEN, 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" 95 at head of flock. Choice rams for sale. Satisfaction guaranteed.

MERINO SHEEP, Berkshires 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.

SWINE.

V. B. HOWEY, Topeka, Kas., breeder of the finest strains of Poland-China Swine, for sale. Inspection desired. Correspondence invited. Blood of Tom Corwin 2d No. 2387. Rooster Tom 1825, Bravo 3377. Give or Take 1585. Got sweepstakes on 8 out of 9 at Kansas State fair 1884.

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

GEO. W. STONER, La Place, Ill., breeder of representative Duroc Jersey Swine. Superior boar pigs for sale.

100 POLAND-CHINA PIGS, from three to six months old, from registered stock, for sale. J. W. Blackford, Bonaparte, Iowa.

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.

I. L. WHIPPLE, Ottawa, Kas., breeder of Recorded Poland-China and Red Berkshire swine. Stock for sale at all seasons. Correspondence solicited.

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.

W. M. PLUMMER, Osage City, Kansas, breeder of Recorded Poland-China Swine. Young stock for sale at reasonable rates.

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

POULTRY.

A SUPERIOR LOT OF MAMMOTH BRONZE TURKEYS at \$3 each, \$3 per trio, and Plymouth Rock Chickens at \$2 each, \$5 per trio, for sale by H. V. Fugleley, Plattsburg, Mo.

W. J. MCCOY, Waveland, Shawnee Co., Kansas, breeds Bronze Turkeys, Light Brahmans, Plymouth Rocks, Buff Cochins, and Pekin Ducks. Bronze Turkeys for sale cheap before holidays.

FAIRVIEW POULTRY YARDS, Mrs. G. Taggart, Parsons, Kas., breeder of L. and D. Brahmans, B. Leghorns, Houdans, Plymouth Rocks, Langshans, P. Cochins, G. L. Bantams, Wyandottes and B. B. 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. R. NYE, breeder of the leading varieties of Choice Poultry, Leavenworth, Kansas. Send for circular.

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

MISCELLANEOUS

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., Kas.

Mt. Pleasant Stock Farm, Colony, Anderson Co., Kansas.

J. S. HAWES

Importer and Breeder of

HEREFORD Cattle.

I have one of the largest herds of these famous cattle in the country, numbering about 200 head. Many are from the noted English breeders, T. J. Carworthine, J. B. Green, B. Rogers, W. S. Powell, Warren Evans and F. Turner. The bulls in service are "FORTUNE," sweepstakes bull with five of his get at Kansas State Fair 1882 and 1883; Imp. "Lord Wilton" bull "SIR EVELYN" own brother to "Sir Bartle Frere;" Imp. "DAUPHIN 18th," half brother to T. L. Miller Co.'s "Dauphin 18th;" and "THE GROVE 4th," by "The Grove 3d."

To parties wishing to start a Herd I will give very low figures. Write or come.

THE LINWOOD HERD

SHORT-HORN CATTLE



IMP. BARON VICTOR

W. A. HARRIS, Linwood, Kansas. The herd is composed of VICTORIAS, VIOLETS, LAVENDERS, BRAWHAY BUDS, SECRETS, and others from the celebrated herd of A. Cruickshank, Sittytown, Aberdeenshire, Scotland. GOLDEN DROPS, and URS, descended from the renowned herd of S. Campbell Kinellar, Aberdeenshire, Scotland. Also YOUNG MARYS, YOUNG PHYLISES, LADY ELIZABETHS, etc. Imp. BARON VICTOR 4524, bred by Cruickshank, and Imp. DOUBLE GLOSTER 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.

Correspondence.

Silk Culture.

Kansas Farmer:

Mr. E. W. Terrell, Jr., the inventor of the Automatic silk reel, says "there is every indication that the United States will become the greatest silk-producing country in the world, and that as the people learn thoroughly the more important details of the industry, the superiority of American silk will be unquestioned." Mr. Terrell is one of our own countrymen, a young engineer. While in France he was determined to solve the problem of silk reeling, and has given to the world an invention for which he has received the highest honors from "The Academies of Belles Lettres, Sciences and Arts of Lyons." The invention will revolutionize silk reeling throughout the world. Even the Chinese who "proverbially change not," have signified their intention of adopting this new reel.

The United States Government have ordered ten reels, and will erect a flature at Washington, D. C., to be in readiness for the crop of 1885, thus providing a permanent home market.

But from whence is the supply of cocoons to come? It requires from fifty to one hundred thousand pounds of cocoons annually to supply one flature. As yet there has not been enough raised to supply one flature, and there are now quite a number in the United States. Great progress has been made in this branch of the industry in the last three years.

Now, we must go to work and learn thoroughly how to raise the best crop of cocoons with the least expense. It is a business to be learned. We can not become expert silk raisers all at once, or expect to make "big money" out of six weeks' work that we know nothing about. The same good common sense must guide us in this as well as any other new occupation, it must be learned. Hence, the best way is to procure an instruction book (25 cents,) from one to two thousand silk worm eggs, one dollar (or, I will send book with eggs for one dollar.) From these if well cared for, several ounces of eggs can be obtained for the next year's cocoonery when the work can be enlarged for profit. Some may have the room to accommodate the product of half an ounce of eggs, if they have young children to interest, and gather the food, trim the Osage hedge, or pick the mulberry leaves. From this amount there will be cocoons to reel.

To give our people a better idea of the importance of the silk industry of the country, I have prepared a "History of silk from the earliest ages to the present time, giving the extent of the manufacturing interest of the United States from 'Colonial' time to its present," including the manual of instruction, "The Bombyx Mori," carefully revised, making a work of over 200 pages, which will be issued the last of the present month.

The exhibit of cocoons sent to the World's Exposition from this and twelve other States will, it is hoped, be convincing proof of the utility of Osage orange. Though small, it may be of interest to those interested in the work. For information, etc., address (enclosing stamp for reply)

MARY M. DAVIDSON,
Junction City, Kas.

Things in Chautauqua County.

Kansas Farmer:

In the close of this year, let me say that we are proud of the KANSAS FARMER, and value it more than most other papers and take no issues on either its moral or literary style; and while we realize that this year's work is just done, I think we can claim that it has been well done. Now we of your patrons in this part of the State wish the FARMER family a happy Christmas and bright and prosperous New Year, and we will do all we can to make it such.

As regards this part of the State, we have had good crops and good stock the past year, but the last two or three months have been extremely rainy, and now it is very cold and has been for the last two weeks, with more snow than common.

Stock of all kinds have been and are now healthy, except a few lots of hogs. Farmers have had hard work to get the corn out on account of the ground being too wet much

of the time, and now the snow is still in the way, making it very uncomfortable.

We have more fat cattle and hogs than common this season, but the low prices are discouraging to all, and especially when taxes are so high.

Fall grain is in good condition and promises well. This cold spell set in with a heavy rain that did stock great damage, but recently it has been a nice time to feed, and stock of all kinds are doing finely now. Some feeders think that their stock is doing better than any time this fall, and eat their feed much better. I would say something about the sheep business, but this is too long now.

D. C. B.

Dec. 22, 1884.

To kill the lime on walls that are to be papered, a coating of glue must be given. To make this, break up a pound of glue; put it in two gallons of water for twenty-four hours until it is melted; put it on hot and give two coats. Then put on the paper in the usual way with rye-flour paste.

To wash colored or striped table linen, let the pieces lie in clear tepid water for some time. Then wring them out and put them in clean suds, washing quickly. Rinse in clean cold water, to which you have added a handful of salt. Let them stand for fifteen minutes; then wring very dry, and hang out.

In Rochester, N. Y., the other day a fermenting barrel of cider exploded with a noise like ordnance, sending cider, staves and hoops in all directions, and actually knocking out one of the brick piers from under the foundation, so that the house settled, binding several of the doors so they cannot be opened. No one was injured.

Messrs. Forrest & Co., of Brooklyn, New York, are now selling an electric belt for \$1 which has heretofore sold at \$6. Such a large reduction is worth considering on any kind of goods, and we would advise those of our readers who are troubled with any of the diseases set forth in their advertisement in this issue, to which we refer you, to send for the belt and test its merits.

Good hard soap can be made by taking three pounds of lime, six pounds each of soda and lard, and four gallons of soft water. Dissolve the soda and lime in the water, stir it while boiling, and let it settle; then pour off the clear water. Wash the kettle, throwing away the sediment, and return the water to the kettle, adding the lard. Let it boil until it comes into soap. Pour into moulds.

Wood may acquire an oak, walnut, or cherry-tree color by staining it with ordinary tincture of iodine diluted with spirits until the exact shade is obtained. White shellac must be added to the iodine solution if the stain is to be made permanent, or the wood, after the stain is applied may be French polished. The iodine may be laid on with a rag or a brush.

A scientific journal reports that a composition of sand, cork and lime, molded into blocks, is now on trial in Germany for building light partitions. It is said to have the advantage of excluding sound better than ordinary brickwork, while being light and a good non-conductor. But a composition of hardwood sawdust applied on lath like common plaster, is cheaper than the German method of constructing partitions, is much lighter, and has other desirable qualities.

A surgeon reports to *Nature* the result of investigations as to the reasons why the tropical man is black. He says the coloring pigment is provided by nature in order to protect the body from the sun's rays, just as smoked glass defends the eye from the sun, the pigment cells being placed in front of the nerve terminations. It would, therefore, appear that nature, at least, had no intention of consigning the black man to an inferior position when it made him black.

The aggregate length of submarine cables in existence is no less than 60,000 geographical miles, or nearly three times as much as the circumference of the earth. Each of these cables consists, on an average, of forty wires, core and jacket together; therefore it may be said that the length of iron and copper wire by which telegraphic communications are carried on at the bottom of the sea is no less than 25,000,000 miles, or ten times the distance of the earth from the moon.

Gossip About Stock.

N. H. Gentry, of Sedalia, Mo., expects to exhibit Berkshires at New Orleans.

What preparations to show at New Orleans are the swine breeders making?

A prominent stockman in Idaho estimates the number of cattle in that territory at 360,000 head.

There are from 75,000 to 100,000 Jerseys in the United States. Forty years ago there were only 200.

Volume 1 of the American Southdown Record is out and the breeders of Southdown sheep are happy.

The Dodge City *Globe* says 78,718 head of cattle have been shipped from the Dodge City yards this season.

During Dec. 6th and 7th there was shipped from Chicago about 4,500,000 pounds of dressed beef, making in all 207 car loads.

The third annual meeting of the Texas Live Stock Association will be held at Austin beginning on Tuesday, January 13, 1885.

Mr. J. M. Boone, of Dallas, Texas, has sold his Clay county ranch to W. F. Evans, of Abilene, the consideration being reported at \$50,000.

Those interested should bear in mind the annual meeting of the Colorado Stock Growers' Association beginning at Denver on the 8th of next month.

H. C. Hefner & Son, Bethany, Mo., report good sales of draft horses and state they will sell at low prices to make room for their spring importation.

In 1883 there were 200 transfers of recorded Berkshires reported to the office of the American Berkshire Association. In 1884 there were over 600 reported.

It is said that the cattlemen, representing so many millions of capital, will open an elegant set of apartments for headquarters at Washington during the winter.

Hon. D. W. Smith, President of the National Cattle Growers' Association is one of the favorite candidates in the west for the position of Commissioner of Agriculture.

American beef in Liverpool is weak in consequence of an over-supply. Salesmen there are notifying their houses in this country not to ship in so large quantities just at present.

C. R. C. Dye, Troy, Ohio, writes that the U. S. Veterinary inspector has examined his herd of Jerseys and states that they are free from any appearance of pleuro-pneumonia or other contagious diseases.

During the past week almost every portion of the range country has received a more or less extensive fall of snow. The result has been favorable altogether, although in some places the mercury reached a very low point. This was notably the case at several Nebraska points.

By the reports of prizes at the Fat Stock shows, grades are on an even footing with full-blooded stock for successful rearing and fattening. This is according to the nature of things. Crossing makes stronger blood and takes with it better digestion, assimilation and growth. They don't look so fancy, but the profit is there all the same. -Ex.

Dillon Bros. write us: We to-day mail you our annual catalogue for 1885. 50 head of our Normans are now on exhibition at the World's Fair in New Orleans; among these is our champion herd that was shown so successfully last fall. Parties visiting this exhibition should not fail to see our display, which terminates January 20, 1885.

Transfers of thoroughbred stock in American Berkshire Record of interest to Kansans are Joe 11,583, D. H. Lindsay, Plattsburg, Missouri, to John T. Wrinkle, Plattsburg, Mo.; Peerless 2135, W. A. Randolph, Emporia, Kansas, to Randolph & Randolph, Emporia, Kas.; Juliet 4666, W. A. Randolph, to Randolph & Randolph; Queen Gloster II 12,668, G. W. Penny, Newark, Ohio, to Geo. C. Carning, Topeka, Kas.

The cattle all over the ranges from Bow river to the line, says the Fort Macleod, Montana, *Gazette*, are in splendid condition. Never have they been in such fine fix to begin the winter. During the present fine weather they continue to take on fat, and the winter must be an exceptionally severe one to make the loss anything worth mentioning. Added to this the larger companies and individuals have put up hundreds of tons of good hay, and poor stock will fare

well. Altogether we do not think the prospects for stockmen could be brighter.

The Fort Worth *Live Stock Journal* says that the general outlook for Texas stock, up to date is favorable. The ranges are in much better condition than this time two years since, and the weather thus far since November has been a duplicate of that year. The Panhandle, Indian Territory, Greer county and all the Red river country has excellent grass. Western ranges on the T. & P. are rather short. North of that line the condition of the range equals last year.

Horticultural Notes.

Pertinent to the late meeting of the State Society.

The tree cricket has been, during the past season, one of the worst insect enemies to apples and small fruits of the Kaw and Missouri valleys.

In addition to the State Society and the N. W., S. W., and S. E. district societies, there are forty-three county horticultural societies in Kansas.

Hon. Martin Allen, of Hays City, Ellis county, showed seven varieties of apples grown there, on the 99th meridian, 2,000 feet above the sea level.

It is a pleasing observation to note that a majority of the members of the State Horticultural Society are not only intelligent and conservative, but gray-haired men as well.

The peach crop this year was a reported failure in all the northern and central counties of Kansas; yet we are creditably informed that hundreds of bushels went to waste in the southern part of the State for want of care, the price being insufficient for profitable marketing.

Two years more will end the second decade of the history of the State Horticultural Society. It has been proposed at that time to publish a digest of the previous proceedings of the society, giving in brief the knowledge derived from twenty years' experience in Kansas horticulture.

Rev. J. B. Schlichter, of Rice county, was one of the pioneer horticulturists of that part of Arkansas valley, and has the satisfaction of knowing that he has made a success with both forest and fruit trees. Nothing so materially enhances the value of a farm in western Kansas as the grove and orchard.

N. P. Deming, Lawrence, Kas., found an effectual remedy for the extermination of the curculio and the codling moth in the following: Eight teaspoonfuls of Paris green and one and one-half pounds of common bar soap to thirty gallons of water, then with the use of a small force pump spray the trees. Mr. Deming feels so well satisfied with the experiment that he will plant out more plum trees, now that he can subdue the curculio.

D. Doyle, Oswego, Kas., a delegate from Labette county, "bobbed up serenely" and gave experiences and remedies for the prevention of ravages of the canker-worm in the orchards, to wit: Tie a band of wool or cotton batting around the trunk of the tree. The worm becomes tangled in the meshes and is prevented from defoliating the verdure of the trees; also, by placing boxes or gourd shells in the trees encourages the presence of wrens and blue birds, who prey upon canker-worms. Bro. Doyle will long be remembered for his "cotton" and "gourd" remedies.

A German trade paper journal says that a waterproof paper that will shine in the dark can be made of forty parts paper stock, ten parts phosphorescent powder, ten parts water, one part gelatine, and one part bi-chromate of potash.

A book-keeper should be a good sleight-of-hand performer, as he is so closely connected with the ledger domain.

Book Notices.

The publishers of the Floral Cabinet supply to their subscribers each year premiums of a floral nature; and for 1885, they announce six different premiums from which subscribers may take their choice, embracing ten packets of flower seeds and some choice bulbs, details of which may be had on application to the publishers at 22 Vesey street, New York. They will also send any of our readers a sample copy at half price (six cents), if this paper is mentioned.

The January number of the North American Review is an excellent one. It presents no very famous names among its contributors, but it offers a wide variety of unusually readable articles. We are now so safely over the crisis of the presidential election that men of all parties can consider calmly Bishop Huntington's essay on "Vitiuperation on Politics," and it is to be hoped that what they learn from it will not be forgotten four years hence. Under the title, "The Reunited South," Henry Watterson presents with great clearness the southern and democratic view of the political situation as it now stands.

GASKELL'S HAND-BOOK OF USEFUL INFORMATION.—We have just received from the publishers a book with the above named title. It contains statistical tables of practical value for mechanics, farmers, lumbermen, bankers, book-keepers, politicians, and all classes of workers in every department of human effort, and a compilation of facts for ready reference on various subjects.

No more valuable little book has ever been offered, as it contains so much information of practical value in everyday life. It is elegantly bound in alligator leatherette, with gold stamp, and will be sent to any address by mail, postpaid, on receipt of 25 cents, by Geo. W. Ogilvie, publisher, 230 Lake street, Chicago, Ill.

FRANK LESLIE'S POPULAR MONTHLY.—The opening number for January, 1885, commences the new volume brilliantly, and the publisher seems determined to maintain the character of this popular magazine as the most varied, comprehensive and the cheapest periodical published. Among the finely illustrated articles are: "The Rise and Fall of a Great Party," by W. A. Croft; "A Midwinter Cruise Among the Antilles," by W. S. Hughes; "Our Vanishing Game-birds," by H. W. DeLong; "A Stroll through the Island of Jersey," by Professor Charles A. Joy; "Prussia's First King," by Alfred H. Guernsey; "In the Cork Forests of Spain," "Hibernation of Mammals," by J. Dunn; "Troubadours Ancient and Modern," by F. Hueffer; "Reminiscences of Lamartine," by Richard B. Kimball, author of "St. Leger," etc., etc. The serial "The Death mark," is continued, and there are short stories, poems, sketches, etc., by favorite writers; an abundant miscellany, 128 quarto pages and over 100 illustrations. Price 25 cents a number, or \$2.50 a year, postpaid. MRS. FRANK LESLIE, Publisher, 53, 55 and 57 Park Place, N. Y.

ORNAMENTAL GARDENING for Americans.—A treatise on beautifying homes rural districts, and cemeteries. By Elias A. Long. This work was prepared with a view to supply a plain and practical work on ornamental gardening at a moderate price. The first of the several parts, into which the work is divided, is devoted to materials of ornamental gardening. These, of course, largely consist of trees, shrubs, and other plants, including the grasses, which are to give a finish to the work, by forming a carpet of verdure to set off all the rest. The descriptions of trees, etc., mainly have reference to their value in ornamental gardening, and are properly brief. Water, rocks, and other natural materials receive proper treatment. In giving plans for the laying out or the improvement of places, the author avoids the too common mistake of providing only for large places. He recognizes the fact, that the smallest front yard is capable of being treated tastefully or otherwise, and such limited areas receive their full share of attention. Many farms only need to have their natural features turned to good account, to become highly ornamental, without interfering with their usefulness as farms. What is said on this subject is worthy of general attention. The chapters on open squares in towns and villages, the planting of school-house yards or grounds, as well as those belonging to various public

buildings, etc., furnish suggestions which have a wide application, and are commended to all interested in village improvement. The teachings of no part of the work are more needed than those relating to cemeteries. While in the beauty of our burial places we are on the whole far in advance of other countries, there is still, even in the older portions of the Union, abundant room for improvement. The teachings on the subject of garden cemeteries, are eminently sensible and practical. Not the least useful portion of the book is that which suggests the work to be done in each month, in order to have a large or a small place in proper keeping. The work is abundantly illustrated, and the instructions are so plain, that they may be readily followed. Cloth, 12mo. Price, postpaid, \$2.00. ORANGE JUDD CO., 751 Broadway, New York.

The great industries of America form the subject of a series of articles which will commence in the January number of Harper's Magazine with a paper entitled "A Pair of Shoes," written by Howard Mudge Newhall a leading shoe manufacturer in Lynn. This article "begins with the beginning and ends with the end," tracing a shoe from the existence of the skin on the back of the animal through the treatments of tanning and currying which make it leather, and so on amid the scores of processes which, in these days of the division of machine labor, do each its part towards making the complete shoe. A pair of shoes, it seems, contains forty-four separate pieces, and goes through the hands of perhaps a hundred people, although it costs the wearer but two or three dollars. One hundred and thirty thousand people are employed in this industry, and their average earnings are somewhat over \$380. These industrial articles are planned to give, in readable fashion, a clear idea of how the important articles of industry are made, who make them, how much they earn, and how they live; in short, to inform Americans how they are clothed, fed, and otherwise served in these days of machinery, and how their fellow Americans earn their respective livings.

This, That and the Other.

A handsome sofa-pillow cover is made of crimson satin, with a large half-circle of embroidery on a lighter shade of crimson upon the upper side.

An exquisite sea-shell, with delicate pink coloring has a small golden-faced clock in the center with a merry chime of bells as it strikes the hour.

A photograph frame, unique and novel, is of bronze-colored lace, with tiny gold stars, worked in Kensington stitch on a framework of red plush.

Ornamental tidies are made of a panel of black velvet with a border of ribbon and of lace. The velvet should be embellished by a spray of flowers embroidered.

Workers in the bleacheries where chlorine is largely used are singularly exempt from all germ diseases, but suffer from special ailments induced by inhaling that gas.

A recent estimate, made by means of a very intricate testing apparatus, places the rate at which an electric dot travels over a telegraph wire at 16,000 miles per second.

A little girl was trying to tell her mother how beautifully a certain lady could trill in singing, and said: "O, mamma, you ought to hear her gargle! She does it so sweetly."

Kansas City to New Orleans.

I have much pleasure in advising you that for the especial accommodation of the large number of people in the west who will attend the World's Fair, at New Orleans, the Memphis Short Route South is now running two daily through trains, each way, between Kansas City and Memphis, with a daily line of Pullman Buffet sleeping cars, Kansas City to New Orleans.

No other line runs through cars between Kansas City and New Orleans. There is no other direct route from the west to the south. J. E. LOCKWOOD, Gen'l Passenger and Ticket Agent, Kansas City, Mo., Dec. 5, 1884.

The cold, damp, disagreeable weather of fall often does greater damage to fowls than the cold days of winter.

A warm, comfortable, well ventilated, clean poultry house is necessary to make hens lay in winter.

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.



PRINCESS.—Third fleece, 26 3/4 lbs.; fourth fleece, 26 1/2.

R. T. McCULLY & Bro.,

LEE'S SUMMIT, JACKSON CO., MO.,

Breeders of PURE SPANISH MERINO SHEEP—Vermont Register 400 Rams unequalled for length and quality of staple, constitution and weight of fleeces; 240 selected by R. T. from the leading flocks of Vermont, especially for retail trade. The line of blood, coupled with the high character they possess, insures a reproduction of their excellent qualities. At prices to correspond with wool.

Also, Light Brahma and Plymouth Rock Chickens and Bronze Turkeys. All orders promptly filled and satisfaction guaranteed. Catalogue free.

PEAR HEADQUARTERS... NEW BERRIES... EARLY CLUSTER... NEW GRAPES... J. S. COLLINS, Moorestown, N. J.

LA MASTER & FERGUSON'S

NEW REMEDY! A Sure Cure and Preventive of

Hog Cholera!

WHAT THE REMEDY WILL DO: It will put your hogs in fine condition. It will improve their appetite. It stops coughing among hogs. It regulates the bowels, and arrests disease in every instance.

WHAT THE REMEDY HAS DONE: TOPEKA, KAN., November 1, 1884. LAMASTER & FERGUSON—Sirs: After losing eighty head of hogs by cholera, I began using your Remedy, and can say it has checked the disease and entirely cured many of the sick ones. I heartily recommend it not only as a preventive but a cure. My hogs are all going well. Yours, &c., H. H. STANTON, Prop'r Pacific Hotel.

We guarantee this Remedy to be superior to any Hog Medicine, and we are ready to prove it by a practical test. Ask your druggist for it or send direct to us. Take no other. One and a half pound Trial Package, sent for \$1.00. Ten-pound can, 60 cts per pound. 25 pounds for \$12.50. Write for circular and Treatise on Hog Cholera. Address LA MASTER & FERGUSON, AGENTS WANTED. Topeka, Kansas.

INCUBATOR.

JACOB YOST, the Inventor and Manufacturer of the

Kansas Economy Incubator,

offers to manufacture and sell them at the following low prices, with full instructions:

No. 1, 100-Egg capacity, \$12; No. 2, 150 \$15; No. 3, 250, \$20.

Or, on receipt of 50 cents, he will furnish a book containing directions how to make and use this incubator. Also how to make a good brooder to mother the chicks, and what and how to feed them to make them ready for market in 8 or 10 weeks; also, how to manage your hens to keep them laying all winter, as well as how to prevent disease; besides a sure cure for roup and cholera.

This incubator is a success. I have hatched 75 per cent. of the eggs without testing, and raised 90 per cent. of the chicks with my Brooder. Address JACOB YOST, P. O. box 818, North Topeka, Kas.

Shot Guns, Revolvers, Rifles, Etc. Large Ill. Catalogue free. Gun Works, Pittsburg, Pa.

100,000 ROYAL PRESENTS!!! AND A Long Loan at 4 Per Cent.

THE publishers of the Chicago Post and Courier desire to secure 100,000 more subscribers. For 50 cents we will mail you our paper six months on trial, and immediately send you a numbered Receipt, which will entitle the holder to one of the following presents. All these presents will be given to these new 100,000 subscribers.

PARTIAL LIST OF PRESENTS TO BE GIVEN AWAY: 10 Cash presents of \$1,000 each; 10 U. S. Bonds, \$500 each; 10 U. S. Greenbacks, \$100 each; 100 U. S. Greenbacks, \$10 each; 1,000 Cash Presents of \$1 each; 1 Grand Square Piano; 1 Grand Cabinet Organ; 100 Ladies' Gold Watches, \$40 each; 100 Silver Hunting-Case Watches, \$20 each; 100 Stem-winding Nickel-Case Watches, \$8 each; 200 Waterbury Watches, \$3.50 each; 50 Ladies' Gold Neck Chains, \$15 each; 50 cents' Gold Chains, \$25 each; 20 Ladies' Gold Bracelets, \$15 each; 10 Silver Dinner Services, \$100 each; 10 Silver Tea Sets, \$60 each; 10 Sets Parlor Furniture, \$100 each; 500 Solid Gold Rings, \$3 each; 500 Sets Solid Silver Teaspoons, 6 to a set; 5 Bicycles, \$90 each; 1 matched pair Trotting Horses, \$1,000; 500 pairs Ladies' Roller Skates; 500 pairs Boys' Roller Skates; and hundreds of other useful and valuable presents which we cannot enumerate here. All the above presents will be awarded in a fair and impartial manner. Presents will be sent to any part of the United States or Canada. Every person sending us 50 cents for a 6-months' trial subscription to our paper is also privileged to apply for a loan, to be made out of advertising profits, the amount borrowed being permitted to remain unpaid as long as the borrower remains a subscriber and keeps the interest paid. On the basis of 250,000 circulation (which will probably be doubled) the business and profit will approximate as follows: Receipts: 250,000 yearly subscribers, \$250,000; 1,000 inches advertising, \$2.50 per line, \$15 per inch, 24 issues, \$360,000; total, \$610,000. Expenses: For paper and press work, 250,000 copies, 24 issues, \$200,000; editorial work, office, repairs, etc., \$25,000; 100,000 presents, \$40,000; total, \$265,000, leaving a net profit of \$345,000. For this enormous profit for sale of advertising space the Chicago Post and Courier depends on its 250,000 subscribers, for advertisers pay for space in proportion to circulation. With but 25,000 circulation the profits would be but a tenth of the amount. Therefore as subscribers are doing us a favor when they send us their names, we desire to return favor for favor. Any subscriber who desires to borrow from \$100 to \$500 at 4 per cent. the principal to stand if desired, as long as the borrower remains a subscriber, should so state when he sends us 50 cents for a 6-months' trial subscription to our paper.

CONDITIONS: Loans made pro rata, not less than \$100 nor more than \$500. First year's interest at 4 per cent. you will send the names of several of your neighbors to whom we can refer—not as to the amount of property you are worth but as to your good character. Every subscriber must positively agree to show the paper and present to his friends and neighbors. When a loan is made, the adjoining form of note will be sent with the money to the subscriber's nearest bank or express office, and no note need be signed until the money is paid over. Send the names of several references, and immediate inquiry will be made. If no loan is desired, no references need be sent.

900 GOLD WATCHES FREE!

WHO WILL SEND THE QUICKEST?

In making up the above list of presents, we decided to reserve \$9,000 to be divided equally among the first 900 subscribers received. If you send 50 cents you will be entitled to one receipt good for one present, and if your letter is among the first 900 received you will also be entitled to a beautiful gold watch. The watch is one-third larger than the picture. We will send a printed list of the awards, free, and all presents will be forwarded to holders of receipts as they may direct. A list of watch winners will be published in our paper. The 50 cents you send us is the regular price for six months, therefore you pay nothing for the present. Subscribe at once. Don't wait a day. We will send you the paper 3 months and 2 numbered receipts good for 2 presents, if you send us 75 cents. Send \$1, and the paper will be mailed you 1 year, and 3 receipts good for 3 presents. Get five friends to join you, and send \$2.50, and we will send the paper 6 months and 1 numbered receipt for each of your subscribers and 1 extra for your trouble. No postponement. Send 10 subscribers, with \$5, and we will send you 12 subscriptions and 13 receipts. This offer is good only until February 25. We have 150,000 subscribers already, and only require 100,000 more to have the desired number. Our old patrons and subscribers, whom we number by thousands, should go to work at once and help us increase our list by this grand and generous offer.

ONLY 50 CENTS Secures our paper 6 months on trial and one receipt good for one present. As to our reliability, we refer to any Bank or Mercantile Agency. Remember these are presents to our subscribers, given to them absolutely free. This is a chance of a lifetime, the true pathway to your future fortune. Every subscriber gets a prize. A fortune may be yours if you will but stretch forth your hand to receive it. It costs only 50 cents to try—is it possible you will let it pass? Postage stamps taken from places where a 1 cent Note cannot be obtained. Remit by Postal Note, plain envelope or express. Address CHICAGO POST AND COURIER, Morrison Building, Corner Clark Street and Calhoun Place, Chicago, Ill.



The Home Circle.

The Old Homestead.

Welcome, ye pleasant dales and hills
Where dream-like passed my early days,
Ye cliffs and glens and laughing rills
That sing unconscious hymns of praise;
Welcome, ye woods with tranquil bowers
Embraced in autumn's mellow sheen,
Where careless childhood gathered flowers,
And slept on mossy carpets green.

The same bright sunlight gently plays
About the porch and orchard trees;
The garden sleeps in noontide haze,
Lulled by the murmuring of the bees;
The sloping meadows stretch away
To upland field and wooded hill;
The soft blue sky of peaceful day
Looks down upon the homestead still.

I hear the humming of the wheel—
Strange music of the days gone by—
I hear the clicking of the reel,
Once more I see the spindle fly.
How then I wondered at the thread
That narrowed from the snowy wool,
Much more to see the pieces wed,
And wind upon the whirling spool!

I see the garret once again,
With rafter, beam, and oaken floor;
I hear the pattering of the rain
As summer clouds go drifting o'er.
The little window toward the west
Still keeps its webs and buzzing flies,
And from this cosy childhood nest
Jack's bean-stalk reaches to the skies.

I see the circle gathered round
The open fire-place glowing bright,
While birchen sticks with crackling sound
Send forth a rich and ruddy light;
The window-sill is piled with sleet,
The well-sweep creaks before the blast,
But warm hearts make the contrast sweet,
Sheltered from storm, secure and fast.

O loved ones of the long ago,
Whose memories hang in golden frames,
Resting beneath the maple's glow,
Where few e'er read your chiseled names,
Come back, as in that Christmas night,
And fill the vacant chairs of mirth!—
Ah me! the dream is all too bright,
And ashes lie upon the hearth.

Below the wood, beside the spring,
Two little children are at play,
And hope, that bird of viewless wing,
Sings in their hearts the livelong day;
The acorns patter at their feet,
The squirrel chatters 'neath the trees,
And life and love are all complete—
They hold Aladdin's lamp and keys.

And, sister, now my children come
To find the water just as cool,
To play about our grandsire's home,
To see our pictures in the pool.
Their laughter fills the shady glen;
The fountain gurgles o'er with joy
That, after years full three times ten,
It finds its little girl and boy.

No other spring in all the world
Is half so clear and cool and bright,
No other leaves by autumn curled
Reflect for me such golden light.
Of childhood's faith this is the shrine;
I kneel beside it now as then,
And though the spring's no longer mine,
I kiss its cooling lips again.

Unchanged it greets the changeful years;
Its life is one unending dream;
No record here of grief or tears;
But, like the limpid meadow stream,
It seems to sympathize with youth,
Just as the river does with age,
And ever whispers—sweetest truth
Is written on life's title-page.

—Wallace Bruce, in *Harper's Magazine*.

Purl--Mittens--Beef.

"Sand Hills" wishes to know the meaning of purl in knitting. A great many people think that purl and seam are the same; but they are different. In seaming you insert the needle in the stitch to be seamed, with the point towards you; pass the thread quite round the needle; take the needle with the thread on it out at the back.

Purl.—The right hand needle is slipped in the loop in front of the left one, and the thread, after passing between the two, is brought round it; it is then worked as before. The thread is always brought forward beginning a purl stitch, unless special directions are given to the contrary.

A lady writer in the *Prairie Farmer* says that she cuts the feet off from woolen stockings at the ankle, sews them across, taking enough of the leg above for a mitten of right length, and then puts in thumbs. These mittens she uses when hanging out and bringing in clothes in the winter.

When you have a piece of beef that is rather tough, boil it until about half an hour before dinner, and then put it in a pan and let it bake; also pour over it some of the liquor it was boiled in.

Where is Agnes Weir? I hope she is not sick again. How many of the ladies have

house plants in bloom now? I have geraniums, mignonette, crysanthemums and morning glories.

BRAMBLEBUSH.

About Transplanting Trees.

I will tell the interested in tree culture how I planted and re-set my catalpas. Last spring I had the ground plowed and harrowed, and marked as for corn; then I took the hoe and filled the marks half full of fresh, fine dirt, dropped the seed about an inch apart and covered them with about an inch of dirt, patted the row lightly as I covered with the hoe. I planted Russian mulberries the same way, only dropped the seed thicker and put on less dirt as the seed is very small. In from two to three weeks the little trees were up nicely. I also re-set several hundred yearling catalpas. They are very hardy and easily transplanted, I think, as some of mine got misplaced in a water-hole and forgotten for a week; when found most of them looked quite dead; but I put them out for an experiment and nearly all either sprouted at the top or from the roots and made a fine growth.

R. A. L.

Two Great Evils.

Joseph Cook says: The worst two evils of our time, inside the domain of christendom, are probably luxurious living among many church members, and loose thinking among religious teachers. And when the two go together we have a religious club instead of a church; a club in which, of course, it would be unbecoming to suppose there are any sinners; a club that has forgotten that all men are brethren, and the business of the church is to stand between the living and the dead.

When we have a number of such churches connected by close social ties, and perhaps giving direction of great central currents in the religious life of a city, the time then has come to waken all the powers of the pulpit and press and platform against the choking of God's most holy truth by purse-strings and ribbons, and by dashes of the lavender waters of liberalism.

I am speaking very frankly; but the truth is that the case needs stern surgery. Our population is a fifth in large cities; and under the voluntary system in the United States it is likely to be our prevailing trouble that, when Judas carries the bag and betrays his Lord, he will not always have the grace to go and hang himself, and you will not have the grace to hang him.

Brothers and Sisters.

It has become one of the standard features of humor to remark about young men being attractive to the sisters of some other fellow, and I have never been able to see it in the light of a compliment to the young man who neglects his own sister for those of some other fellow, and it is none to the young man whose sisters receive the attention of such a man, for, in the nature of things, he is going to treat his wife as he treats his own sisters.

While there may be sisters who are careless of their brothers and give them no encouragement to act toward them as gentlemen should, I am glad to say that they are exceptions and not the rule. There are no women in the world who appreciate more the attention of a young man than sisters do of brothers, and the average brother can, if he desires, be an absolute monarch over his sisters, and they never discover it. They make the most charming slaves in the world, and they never show the peculiar independence of a wife, be she as much as she may the vassal of her heart.

The usages of society and humanity compel a man to show a certain subservient deference to his mother and wife, but the sister has no such claim. She is his sister, and even the common gallantry of the stronger to the weaker sex is denied her on the very ground of her relation to him. That is the argument at least, and society to a great extent recognizes it. Therefore, if a young man throws aside his alleged privileges and treats his sister as equal to his wife or mother, and superior to any other woman, she feels that he is the best fellow in the world and she is not going to give him second place anywhere. Young men, if you don't believe what I'm telling you, just try it once and learn the truth for yourself.

I dimly guess from blessings known
Of greater out of sight.—J. G. Whittier.

Teach the Children to Work.

A correspondent of the *Country Gentleman* says that parents do their children a grievous wrong when they do not require them to become proficient in all branches of labor common to their position. This is especially apt to occur when the father and mother are strong and capable, and can themselves perform the work more easily and satisfactorily than can the young people. It requires more patience for a strong woman to superintend the baking by her twelve-year-old daughter than to do it herself; but for the child's good, and her own convenience later in life, she should direct the work and let the little girl do it.

In homes where there is plenty to keep all hands busy, the girls are apt to be put first at dish-washing, preparing vegetables, and then sweeping, while the mother (who has no time to teach her daughters) does the baking and cares for the milk. By and by, when two or three of them are as tall as herself, there comes an urgent invitation to spend a month or two with her mother, who, in failing health, longs for her eldest child. But this worried and wearied housewife thinks of the baking, the fruit and butter-making, and as she sadly writes a refusal, vaguely wonders why her daughters are not as capable as her neighbors'. Her girls ardently wish mamma to see their grandmother; yet realize their own inability, and cannot urge the matter. After a time the girls marry, and unless they possess unusual perseverance and "knack," their husbands have sufficient reason to praise their own mothers' cooking and disparage that of their wives.

Among men this state of things is equally bad. The father thinks the boys cannot drive horses, or run the mowing machine, or sow grain, or take produce to market. Instead of putting the strong young men at work that will call out all their tact and brain as well as muscle, they are thought incapable, and father does all the planting. I have in my mind an instance where the father constantly staid at home, being afraid to leave lest his son, who was the real manager, should not do the chores in proper order, or an indefinable "something" should occur in his absence.

Not only is it best to require children to do all kinds of work, but equally needful is it to teach them the easiest and most approved methods. A housewife once told me that for several years she did the washing in her father's home, and although she used every particle of strength she possessed, her mother constantly complained that it was imperfectly done. After her marriage, she one day watched a young girl at the wash-tub, and saw that her way of rubbing differed from and was easier than her own, and then realized that she had never known how to wash! Another, a school teacher who boarded with her aunt, helping her nights and mornings, said she learned more that term than did any of her scholars. Her aunt not only required her to do the work, but taught her how to do it, while her mother merely said the work must be done, letting her choose her own way.

I would not have young people disregard the advice or wisdom of their elders; neither should they be so dependent as never to plant a field or put up a jar of preserves without their parents' oversight. Give them plain directions, and set them going; watch without their knowledge, and, if likely to be worsted, give a little aid or advice, and start them on again. It will be infinitely better for both parents and children than to have the latter turn out to be milk-and-water individuals without capability or go-ahead-iveness.

A Brief Sermon on Cranks.

What would we do were it not for the cranks? How slowly the tired old world would move, did not the cranks keep it rushing along! Columbus was a crank on the subject of American discovery and circumnavigation, and at last he met the fate of most cranks, was thrown into prison, and died in poverty and disgrace. Greatly venerated now! Oh, yes, Telemachus, we usually esteem a crank most profoundly after we starve him to death. Harvey was a crank on the subject of the circulation of the blood; Galileo was an astronomical crank; Fulton was a crank on the subject of steam navigation; Morse was a telegraph crank. All the old abolitionists were cranks. The Pilgrim Fathers were cranks;

John Bunyan was a crank; and any man who doesn't think as you do, my son, is a crank. And by and by the crank you despise will have his name in every man's mouth, and a half completed monument to his memory crumbling down in a dozen cities, while nobody outside of your native village will know that you ever lived. Deal gently with the crank, my boy. Of course some cranks are crankier than others, but do you be very slow to sneer at a man because he knows only one thing and you can't understand him. A crank, Telemachus, is a thing that turns something, it makes the wheels go round, it insures progress. True, it turns the same wheel all the time, and it can't do anything else, but that's what keeps the ship going ahead. The thing that goes in for variety, versatility, that changes its position a hundred times a day, that is no crank; that is the weather vane, my son. What? You nevertheless thank heaven you are not a crank? Don't do that, my son. Maybe you couldn't be a crank if you would. Heaven is not very particular when it wants a weather vane; almost any man will do for that. But when it wants a crank, my boy, it looks about very carefully for the best man in the community. Before you thank Heaven that you are not a crank, examine yourself carefully, and see what is the great deficiency that debars you from such an election.—*Burlington Hawkeye*.

A Cure For Hiccoughs.

A remedy tested many times without a failure is published in the *Popular Science Monthly*, which says that it can always be used by some one else upon a person who has "the hiccoughs" and generally by the sufferer himself. You say to your friend something like this: "See how close together you can hold the tips of your forefingers without touching. Now keep your elbows out free from your sides. You can get your forefingers closer than that. They are touching now. There—now hold them so. Steady!" By this time you can generally ask "Now, why don't you hiccup?" The involuntary tendency to breathe slowly and steadily when the attention is fixed on performing a delicate manipulation counteracts the convulsive action of the diaphragm.

Upon the meadows, far and wide,
A silvery frozen mantle lay;
And on the upland mountain side,
Frost glistened in the dawn of day.
Winter was nigh.

The farmer paused in early light,
His rugged face was marked by care;
Amid his locks were lines of white,
For Nature, too, had frosted there—
Winter was nigh.

Forenoon and afternoon and night;
Forenoon and afternoon and night;
Forenoon and afternoon—the empty rhyme
Repeats itself. No more? Yes; this is life.
Make this forenoon sublime, this afternoon
A psalm, this night a prayer, and life
Is conquered, and thy crown is won.

What boots it to repeat
How time is skipping underneath our feet?
Unborn To-morrow and dead Yesterday—
Why fret about them if to-day be sweet?

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

40 Loveliest Chromo Cards you ever saw. 40 styles with name 10 cents. O. CARD CO., Yellow Springs, Ohio.

50 CARDS all perfumed, New designs, little beauties, Gold Chromo, Veris, Mottos and Hidden Name, with an elegant prize, 10c. Ivory Card Co., Clintonville, Ct.

THE BIGGEST THING OUT Illustrated Book (new) E. NASON & CO., 124 Fulton St., New York.

CARDS 50 Elegant Perfumed Floral and Panorama Cards, name on, and 10 interesting Games 10c., 5 packs and Rolled Gold Ring with PEARL setting, 50c. Clinton Bros., Clintonville, Ct.

WANTED.—Ladies or Gentlemen to take nice, light, pleasant work at their own homes (distance no objection). Work sent by mail. \$2 to \$5 a day can be quietly made. No canvassing. Please address at once, Globe M'fg Co., Boston, Mass., box 5344.

We will send you a watch or a chain BY MAIL OR EXPRESS, C. O. D., to be examined before paying any money and if not satisfactory, returned at our expense. We manufacture all our watches and save you 30 per cent. Catalogue of 250 styles free. Every Watch Warranted. Address STANDARD AMERICAN WATCH CO., PITTSBURGH, PA.

NEW 'Singer' Model Sewing Machines only \$15 Including an \$8.00 set of extra attachments of 9 pieces and needles, oil and equal outfit of 12 pieces with each. Guaranteed perfect. Warranted 5 years. Handsome, durable, quiet and light running. Don't pay \$30 to \$50 for machines no better. We will send ours anywhere on trial before paying. Circulars free. Save \$15 to \$35 by addressing GEO. PAYNE & CO., 47 Third Ave., Chicago, Ill.

The Young Folks.

The Lucky Horseshoe.

A farmer traveling with his load
Picked up a horseshoe in the road,
And nailed it fast to his barn door,
That Luck might down upon him pour,
That every blessing known in life
Might crown his homestead and his wife,
And never any kind of harm
Descend upon his growing farm.
But dire ill-fortune soon began
To visit the astounded man.
His hens declined to lay their eggs;
His bacon tumbled from the pegs;
His corn, that never failed before,
Mildewed and rotted on the floor;
His grass refused to end in hay;
His cattle died, or went astray;
In short, all moved the crooked way.
Next spring a great drouth baked the sod,
And roasted every pea in pod;
The beans declared they could not grow
So long as nature acted so;
Redundant insects raised their brood
To starve for want of juicy food;
The staves from barrel sides went off
As if they had the whooping-cough,
And nothing of the useful kind
To hold together felt inclined;
In short it was no use to try
While all the land was in a fry.
One morn, demoralized with grief,
The farmer clamored for relief;
An I prayed right hard to understand
What witchcraft now possessed his land;
Why house and farm in misery grew
Since he nailed up that "lucky" shoe.
While thus dismayed o'er matters wrong
An old man chanced to trudge along,
To whom he told with wormwood tears,
How his affairs were in arrears,
And what a desperate state of things
A picked up horseshoe sometimes brings.
The stranger asked to see the shoe,
The farmer brought it to his view;
But when the old man raised his head,
He laughed outright and quickly said
"No wonder skies upon you frown—
You've nailed the horseshoe upside down!
Just turn it round, and soon you'll see
How you and Fortune will agree."

The farmer turned the horseshoe round,
And showers began to swell the ground;
The sunshine laughed among his grain,
And heaps on heaps piled up the wain;
The loft his hay could barely hold,
His cattle did as they were told;
His fruit trees needed sturdy props
To hold the gathering apple crops;
His turnip and potato fields
Astonished all men by their yields;
Folks never saw such ears of corn
As in his smiling hills were born;
His barn was full of bursting bins—
His wife presnted him with twins—
His neighbors marveled more and more
To see the increase in his store.
And now the merry farmer sings
"There are two ways of doing things;
And when for good luck you would pray,
Nail up the horseshoe the right way."
—James T. Field.

Remarkable Trees.

One-third of the land surface of our planets, says the Boston Transcript, is covered with trees. The largest tree in the world is situated in Mascoli, near the foot of Mount Etna, and is called "The Chestnut Tree of a Hundred Horses," and is believed to be the oldest tree in the world. Its name arose from the report that Queen Jane, of Aragon, with her principal nobility took refuge from a violent storm under its branches. At one time it was supposed that it consisted of a clump of trees united, but on digging away the earth, the roots were found entire, and at no very great depth. Five enormous branches rise from one trunk, which is 212 feet in circumference. A part of the trunk has been broken away, and its interior is hollow, and large enough to contain a flock of sheep, or to admit two carriages driving abreast through it. It still bears abundance of fruit, and its collectors have built a hut within the trunk, the better to promote their proceedings. At Tortworth, England, there exists a chestnut tree measuring, at four feet from the ground, sixty feet in circumference, although at the present time it is nearly a sylvan ruin. A fig tree stands on the northerly bank of the river Johnstone, in East Australia, in latitude 27 degrees, longitude 151 degrees, near Brisbane, measuring, three feet from the ground, 150 feet, and at fifty-five feet, where it sends off great branches, eighty feet in circumference. There lies upon Mount Bawbaw, Gippsland, Southeastern Australia, a gum tree measuring 480 feet as it lies where it was broken off at the top, and it is calculated to have stood 520 feet high; it measures six feet in circumference. In Bougouderch, near Constantinople, is a plane tree measuring 140 feet in circumference. At Bajak, Bournarbashi, Asia Minor, is a pond overshadowed by three gigantic plane trees, the trunk of one

of which, one foot from the ground, measures forty-three feet in circumference.

The largest tree in the United States stands near Bear Creek, on the north side of Tule river, California. It measures 140 feet in circumference. In Tuolumne grove, Nevada, stands "The Dead Giant Redwood Tree," measuring 119 feet in circumference, which has been so entirely hollowed out by long use as a chimney that the road-makers could not resist the temptation of completing the work of camp fires, so they have cut a great archway right through the farther side of the poor dead stump, and led the road through it, so that now the high, crowded coach daily passes through the very heart of the great tree which may have been young in the days of Julius Cæsar. There are thirteen other trees standing near it measuring from seventy-two to ninety-six feet in circumference. The "Grizzly Giant," the monarch of the Mariposa grove, measuring ninety-two feet in circumference. The Tulare-Fresno forest, so-called from being situated in those two counties (California,) extending seventy miles in length, with a width in some places of ten miles, consists mainly of big trees, with a multitude of smaller ones, measuring from six to 120 feet.

Near Santes, in France, stands an oak tree measuring ninety-one feet in circumference. At Holwood, near Bromley, England, stands an oak tree with a root projecting on one side into the shape of a settee. Seated upon that root William Pitt and William Wilberforce held together a conversation, as a result of which the latter, in 1782, brought the question of the abolition of the slave trade before the House of Commons. The tree is still known as the Wilberforce oak. Pliny (A. D. 23) tells us of a plane tree growing in his time which was in itself a forest. The Governor of Lucia gave an entertainment to his friends in the hollow trunk, which is eighty feet in circumference. John Dowd discovered in Calaveras county, California, a grove of 103 trees covering a space of fifty acres, measuring seventy to ninety-six feet in circumference. Throughout all England there are oak trees of remarkable size. The "Crowthorp Oak," on the banks of the Nidd in Yorkshire, measures at the ground seventy-eight feet in circumference. The famous tree called the "Charter Oak," near Hartford, Connecticut, which fell August 21, 1856, was thirty-three feet in circumference at the ground, and it fell so as to leave eight feet of stump on one side and six feet on the other. A double trunked oak tree is standing in a garden in South Beaver, Pennsylvania, which begins at the root with a single trunk. This divides into two, about one foot from the ground and continues thus for ten feet, and then becomes united again. Each of the twin trunks, at the point of division, measures three feet in circumference.

Diamonds in the Treasury.

In the bond vault of the United States Treasury is a quantity of diamonds and other precious stones which have a queer history. Indeed, the facts relating to some of them are scarcely known, and their history is largely a matter of tradition. Their value is variously estimated at from \$50,000 to \$100,000.

There is a bottle four or five inches long filled with glistening diamonds, and besides these a large number of separate stones of various kinds. Some of them are set in beautiful gold ornaments, intended for personal wear. Most of them have been in the custody of the treasury officials for forty-five years. These were sent to President Van Buren in 1839 by the Imaum of Muscat, a country of Asia, as a testimonial in recognition of some service to that country by his administration. Just what it was nobody appears to know.

President Van Buren could not accept them for himself, although it was the desire of the donor that he should do so, by reason of the clause in the Constitution which forbids any person connected with the government accepting any present or decoration from any foreign power or potentate. To have returned them would have been an insult to the royal giver, and what to do with them was a question that puzzled the presidential mind. They were finally turned over to the treasury, and there they remain unto this day.

The entire collection has accumulated in a

similar way. Other presents were sent to government officers by Kings and Princes who had not read the Constitution of the United States, and nothing could be done with them except to stow them away in the vault. They do not have any definite owners, and they bear about the same relation to the government that unclaimed packages do to an express company.

The treasury people have long been in a quandary as to what disposal to make of them. Two or three times in years past the matter has been brought to the attention of Congress, but no action was ever taken. It would be rather shabby to sell them and appropriate the proceeds, and it is likely that these "gems of purest ray serene" will continue to lie in the dark vault. Another effort to have Congress do something with them will be made. They are "sort of lying around loose," and are considered a nuisance.

The Chinese Cabinet Maker.

I noticed a door and a window in a courtyard with a very original lattice. I had succeeded in getting a few similar ones, and when time failed me I rubbed black all over a sheet of paper and then applied it to the lattice, thus obtaining a faithful life-size copy. The Chinese paper being strong, although fine, was eminently suitable to this sort of drawing, and also to copying inscriptions on stones or walls. Not having any such paper about me I begged a Chinese to go and fetch some for me, which he did, with alacrity, and when I explained what I was going to do, he ran and got me a stool that I might reach the window with greater facility. Some of them held it all the time for me, and when they inquired why I was doing this, I told them that the design was very beautiful, and that I desired to have a window like it in my own house. This pleased and flattered them greatly, and to enhance the merits of their town they told me the artist was a native cabinet maker; some of them even ran to fetch him. I complimented him on his work, but he was very modest about it. I then tore a sheet of paper out of my note book, and, to leave him a remembrance, sketched my own likeness and offered it for his acceptance. The on-lookers recognized the drawing and uttered exclamations of approval. The cabinet maker ran off with it greatly delighted, accompanied by a crowd of admirers. I only mention this fact to prove how easy it is to disarm the distrust and hostility of a Chinese crowd.—A Russian through China. Plassetsky.

The World's Great Bells.

Russia is in the lead in the line of bells, some of her manufacture being the most famous in the world. It is said that in Moscow alone before the great fire, there were no fewer than 1,706 large bells. One called the giant, which was cast in the sixteenth century, and broken by falling from its support, and recast in 1654, was so large that it required twenty-four men to ring it; its weight was estimated at 288,000 pounds. It was suspended from an immense beam at the foot of a bell-tower, but it again fell during the fire of June 19, 1707, and was a second time broken to fragments, which were used with different material in 1732 in casting the King of bells, still to be seen at Moscow. Some falling timber in the fire of 1737 broke a piece from its side, which has never been replaced. The bell is estimated to weigh 443,732 pounds; it is 19 feet 3 inches high, and measures round the margin 60 feet 9 inches. Its value in metal alone is estimated to amount to upward of \$400,000. St. Ivan's also in Moscow, is 40 feet 9 inches in circumference, 16½ feet thick, and weighs 127,830 pounds. The bells of China rank next to those of Russia in size. In Pekin there are seven bells, each of which, according to Father LeCompt, weighs 120,000 pounds. The weight of the leading great bells of the world may be seen in the following:

King of Bells—Moscow.....	443,732
St. Ivan's—Moscow.....	127,830
Pekin.....	120,000
Vienna.....	40,000
Olmütz—Bohemia.....	40,000
Rouen—France.....	40,000
St. Paul's.....	48,470
"Big Ben"—Westminster.....	30,350
Montreal.....	28,560
St. Peter's—Rome.....	18,600

—Boston Herald.

A table of contents—The dinner table.

The Oclock in Trinity Tower.

The clock in Trinity church tower in New York city is the heaviest in America. The frame stands nine feet long, five feet high and three feet wide. The main wheels are thirty inches in diameter. There are three wheels in the time train and three each in the strike and the chime. The winding wheels are formed of solid casting thirty inches in diameter and two inches thick, and are driven by a "pinion and arbor." On this arbor is placed a face, or another wheel, pinion and crank, and it takes 850 turns of this crank to wind up each weight. It requires 700 feet of three-inch rope for the three cords, and over an hour for two men to wind the clock. The pendulum is eighteen feet long, and oscillates twenty-five times per minute. The dials are eight feet in diameter, although they look little more than half that size from Broadway. The three weights are about 800, 1,000 and 1,500 pounds respectively. A large box is placed at the bottom of the well, that holds about a bale of cotton waste, so that if a cord should break, the cotton would check the concussion.

Meerschaum.

In 1723 there lived in Pesth, the capital of Hungary, Karol Kowatea, a shoemaker, whose ingenuity in cutting and carving on wood brought him in contact with Count Andrassy with whom he became a favorite. The Count on his return from a mission to Turkey, brought with him a piece of whitish clay, which had been presented to him on account of its extraordinary light specific gravity. It struck the shoemaker that, being porous, it must be well adapted for pipes, as it would absorb the nicotine. The experiment was tried, and Karol cut a pipe for the Count and one for himself. These were the first meerschaum pipes.

Now that the British men-of-war are illuminated by electricity, the sailors are unable to understand how they endured the misery of candle-light so long.

The entire surface of the moon has been lithographed in six pictures from paintings by Mr. Harrison. Astronomers attest the accuracy of the work.

Drawing materials—Mustard and water.

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A three-inch snow honored Christmas with its presence in this region.

The Pacific Mail Steamship company has contracted a six months' supply of coal at three dollars a ton.

The opinion of the best business men is that better times are not far ahead. Everything that is worth considering points that way.

A three-inch snow and a bracing atmosphere assisted us through Christmas day in these parts. Christmas is not complete without snow in this latitude.

Many of the woolen mills in the East are starting up again, and at Fall River about all the cotton mills are running on full time. These are very encouraging signs.

The price of coal in the Eastern States is falling. This applies to anthracite coal. It does not affect our bituminous coal out West here, but it is a symptom of good health that all of us will be glad to see.

Fears were entertained a few days ago of a general strike among railroad men; but later reports show a much better condition of affairs. There was but little ground for the rumor; still it got afloat, and its contradiction affords satisfaction everywhere.

A gang of cowboys took possession of a railway train in Texas and ran it some sixty miles "just for fun." They did no injury. They had "lots of fun" firing their pistols and eating the newsboys' peanuts. A report the next day said "the boys were on a lark." Guess so.

The condition of the iron trade seems to be improving. The *Iron Trade Review* publishes responses received from a large number of manufacturers of machinery and other branches of the iron trade in New York, Pennsylvania, Ohio, Connecticut, and other States in regard to the past year's business. Eleven firms report it better than in 1882, twenty-four found it substantially the same, five experienced a good trade during the first half of the year and dullness the remaining six months, and fourteen say they had a worse business this year than in 1883. Thirty-six have run continuously during the year, nine overtime, and eleven nearly full. Two say they have received about the same prices as in 1883, and the remainder report lower prices ranging from 5 to 30 per cent. below those of 1883. Concerning the general iron business in their respective cities nearly all report it dull or upon reduced time during the year. As to the outlook there is a gratifying majority on the favorable side. Only ten think the prospect bad, fourteen are undecided, but hopeful for the best, and thirty-one think the business situation is promising, some thinking the upturn has already begun, none putting it further off than April.

A Constitutional Convention.

A considerable number of the politicians of Kansas are privately arranging for a movement on the Legislature in favor of a constitutional convention. Several reasons are urged as sufficient for this course. It is alleged that the salaries of members of the Legislature ought to be increased, and this can be done only by an amendment of the constitution. It is said that the present exemption of a homestead and certain specific articles and values of personal property is too liberal, and that the constitution ought to be amended so as to cut down these exemptions. It is alleged that our judicial system ought to be remodeled, and that some changes are needed in matters of common law jurisdiction. Indeed, almost every lawyer, and especially every young lawyer who does not know as much now as he will know when he learns more, has some change in his mind to propose. These young lawyers are all politicians and are building upon the theory of the ancient Pharisees—loud and much talking.

But there is no danger from the noise of these young highfliers except as their barking is the echo of older throats. The head men keep snugly in the dark and whisper to the boys who are always ready to buy favor at headquarters. When the heavy men take snuff the light men sneeze; when the big men are pleased the little men laugh. So it is now. Every observer saw the careful manipulation in both the great parties in this State the last summer. Only last Saturday the *State Journal*, which is the leading Democratic organ in Kansas, accused its party of treachery in the campaign to the extent of ten or fifteen thousand votes, and the *Daily Capital* of Sunday morning calls attention to this constitutional convention movement on the part of Republicans.

The people of Kansas do not need a constitutional convention. It is expensive, and it is dangerous. The cost of such a convention and its necessary attachments fore and aft, would exceed one hundred thousand dollars, and we can readily see how it might reach twice that much. The language of the constitution on the subject of calling a constitutional convention is found in article 14, section 2, as follows:

Whenever two-thirds of the members elected to each branch of the Legislature shall think it necessary to call a convention to revise, amend or change this constitution, they shall recommend to the electors to vote at the next election of members of the Legislature, for or against a convention; and if a majority of all the electors voting as such election shall have voted for a convention, the Legislature shall, at the next session, provide for calling the same.

That is the only provision in the constitution relating to this subject. It immediately follows the section providing for amending the constitution by submitting separate propositions not exceeding three to the people directly at a general election, and section 2 is to be construed to accord with section 1 as far as the same may be necessary for instruction. Section 1 requires notice to be given by three months publication in at least one newspaper in every county where a paper is published. Similar publication would be required in case of a constitutional convention. The recommendation of the Legislature would be in the form of a concurrent resolution reciting several whereases, and directing the time and manner of election, form of ballots, etc. The amount of matter to be published would not be less, probably, than five squares—four or five inches in an ordinary newspaper column of nonpareil type. To publish five squares one time in one paper would cost five dollars at legal rates, and for

the other twelve publications to complete three months, thirty dollars, making a total of thirty-five dollars for one paper. Multiply that by two hundred, and we have \$7,000 for publishing the notice. The convention would consist of one member from each representative district—125, and the mileage would amount to an average of \$30 to a member, or an aggregate of \$3,750. The convention would sit, probably, sixty days, and would be allowed not less than \$5 a day, which would be \$725 daily, or \$43,500 for the session. The printing to be done during the session by the State Printer would not be less than \$15,000 or \$20,000 dollars, and the pay of clerks, sergeants-at-arms, messengers, doorkeepers, janitors, etc., would use up at least \$100 a day, or \$6,000 for the session; and the stationary used by members would amount to another \$1,000. And then, after the work of the convention is completed, the heaviest item of expense—the publication of the new constitution, is to follow. If the people are to have three months notice of one proposed amendment, they would hardly be put off with less in case of a new constitution. If four or five inches in one column of a newspaper costs \$35, fifteen or twenty columns would cost fifty or more times that much. It would be a very reasonable estimate that would place this item at \$50,000.

Collecting the different items of expense, we have—

Publishing notice.....	\$ 7,000
Mileage of members.....	3,750
Per diem of members.....	43,500
Officers, clerks, etc.....	6,000
Stationery of members.....	1,000
Printing for convention.....	20,000
Publishing new constitution.....	50,000
Total.....	\$131,250

But the expense is not all there is to put against the movement. The people do not need a convention; they do not want one; they have not asked for one. Only four years ago they voted almost solidly against it, and nothing has occurred since to change public sentiment on the subject. Think a moment. The people of Kansas are composed largely of farmers. Perhaps three-fourths of our people live on farms. What one among them has ever demanded a convention to make up a new constitution? Farmers are interested in transportation more than in any other one subject of a political nature, yet the men who are asking for this convention do not say a word about that. They expect farmers to vote a convention in which a few men may air themselves and put the people in confusion. The first dive would be made for the exemption clause. Remove that, or a major part of it, and a perpetual feast for lawyers and collection agents would follow. With taxes and high freights, our farmers have hard work to make both ends meet and have a fair living beside. Take away from them the exempted homestead and other property, and bankruptcy would follow in thousands of cases. We sometimes think it would be well if all collection laws were abolished, so as to compel men to deal exclusively on cash and personal honor. But these convention men would expose the hard working people still further to the cupidity of creditors.

This constitutional convention business is not new. It has been urged at every session of the Legislature as far back as our memory runs in Kansas affairs. It is a hobby with some men, and it is a dangerous one. No interest in the State is suffering for a change in the constitution. Take the politicians away and we would not hear the matter mentioned. The *KANSAS FARMER* hopes that the people of the State will promptly inform their representatives in the Legislature that they prefer a better enforcement of existing laws and

not a changing of what we have for something that we know not of.

Besides all this, there is a great deal of the present constitution—perhaps 90 per cent. of it, that would not be changed. Why then, go to all this expense and trouble for the sake of making a few changes that can be submitted in the usual way just as well, and with comparatively no expense? Three amendments will cover the most urgent matters that our friends are pressing. Let them be submitted separately to the people, and deny yourselves the luxury of a convention.

The New Year.

We will set the example—1885. There it is. It is not hard to write; no more difficult than 1884 or any other of its predecessors. And, dear reader, did you ever think about the ease with which we accommodate ourselves to the surroundings? Our education is continually fitting us for things to come. We march brusquely up to the future and are ready for all it has in store for us. For one whole year have we been plodding along wondering what a day would bring forth, and here we are square up with the first day of the new year, quite as well able to take care of ourselves as we were one year ago, and that is not saying much, but it is true.

The *KANSAS FARMER* looks out upon its large circle of friends and wishes them all a happy New Year. It wishes them prosperity in temporal things, growth in moral condition, and pleasant ways of life. We speak directly to our friends in families; we would reach fathers, mothers, husbands, wives, sons, daughters—all. If the family is happy, Heaven is not far away; if it is unhappy, society loses one support. May the blessing of Him who doeth all things well attend you in all relations of life, and may the world be better for your having lived.

The State Board of Agriculture meets on the Second Wednesday of January. Several important papers will be read at the meeting. Among others will be the following: E. B. Cowgill, of Sterling, on "The Sorghum Industry;" Prof. E. A. Popenoe, on "Botany;" Prof. F. H. Snow, on "Entomology;" G. H. Failyer, on the subject of Botany; J. W. Robinson, one of the botanists of the board, on the subject relating to his department; F. P. Baker, on "Forestry;" Prof. Fairchild and Prof. Shelton, on subjects to be selected by them. The law provides that every county or district agricultural society organized under the laws of the States shall be entitled to send the president of such society, or other delegate, to this meeting, who shall, for the time being, be ex-officio a member of the State Board of Agriculture, entitled to participate in the election of officers, provided that the secretary of such county or district society shall have made such reports as may be required by law or by the board to the Secretary of the State Board of Agriculture, of the condition of the crops, etc.

Rotten Corn.

There is a good deal of trouble in some parts of the State on account of cattle eating rotten corn. A Harper county correspondent writes us:—Please caution farmers to pick all the rotten ears of corn of which there seems to be an unusual amount this year, as some here are having much trouble with their cattle where it was left in the field. The cattle get stiff in joints, stagger, fall down and in some cases are unable to get up for weeks. One death of a heifer occurred yesterday by this cause. I thought the rotten ears worth 3 cents a bushel to burn, so picked it, and have no trouble with my cattle in stalks all the time.

Horticulture.

HORTICULTURE IN KANSAS.

Address of Vice President M. B. Newman, before the Kansas State Horticultural Society, at Wyandotte, December 17, 1884.

It would have added much to the interest and enjoyment of this meeting if it were possible that we could each bring with us more encouraging reports from our respective localities of the practical results of horticultural work in Kansas since our last annual meeting, but while those in attendance from the more favored counties of the southern portion of the State are happily able to bring with them reports of great horticultural blessings, those from the central and northern portions of Kansas have to acknowledge numerous discouragements. The effects of two unusually severe successive winters, while materially affecting the vitality of many of our orchard trees, our vineyards and other small fruit growths have not at the same time materially diminished the hosts of pests with which we have to contend, our insect and fungoid enemies. The effects of two such winters, or even more, in succession could have been more patiently endured had they caused corresponding destruction of the annoying foes of horticultural industries.

In reference to these insect pests, it will be well for us to more thoroughly consider the necessity of combined and vigorous action to obtain the mastery over them. The fossil remains, imbedded in the various formations of geologic time, fully prove to us that numerous genera of past organic existence have become extinct, and in turn have been superseded by others better fitted for success in the great struggle for existence. The fact is thus rendered apparent that these remarkable changes of the past are simply the preludes of like events yet to occur in the great drama of organic life. It is an old and well accepted adage that "history repeats itself," and it remains for us to solve the problem whether we, or our insect enemies, shall prevail in the now impending struggle for self preservation. It is true that, individually considered, these insect foes are insignificant forms of organic existences; and that, to the superficial observer, they present no formidable features of antagonism to us. But when we more deeply study their astounding power of multiplication, and the insatiable voracity with which they invade all the fruits of our agricultural and horticultural industries, we become awakened to the serious apprehension that unless successfully restrained by the warfare we may wage against them, it is only a question of time when they will have so thoroughly vitiated all of our food supplies as to leave an actual insufficiency for the healthful sustenance of the human family.

What course shall we take to avert this impending evil? Clearly no individual efforts are adequate to the emergency. Combinations in school districts, townships and counties would be steps in the right direction. The larger the combinations and the more unanimous the co-operation may be the better will be the probable results. But united and unanimous action throughout the entire limit of our State, supported by well considered and efficient legislation, specifying duties to be observed and providing adequate penalties for neglect of the same, are apparent necessities; and the extension of such system throughout the States and Territories of our entire country are probably the only efficient modes of warfare against the formidable hosts of enemies now invading the products of our agri-

cultural and horticultural industries. These destructive pests must not only be met at all points of contact with our respective industries, but even their breeding places must be so thoroughly destroyed that their actual extermination may, if possible, be effected. For then, and not until then, can we expect full immunity from their further depredations.

The discoveries of the past few years in the matter of the *germ theory* of diseases abundantly prove the germ origin of several of the most serious maladies afflicting mankind and our domestic animals. And they further demonstrate the facts, both as to man, our flocks and herds, that those individuals of each class which are in the best physical condition and are descended from the most vigorous parent stocks, are most wholly exempt from the ordinary contagious effects of such diseases. Now considering, in this connection, the well observed facts of horticultural experience that fruit trees, etc., of the best constitutional vigor and origin, are least affected by the various insect and fungoid injuries to which our orchards and gardens are exposed, we arrive at the conclusion that these conditions of exemption are clearly analogous. If so, then a most important step in our warfare with these pestiferous enemies should be to wholly eliminate from our orchards and gardens all those feeble and otherwise susceptible varieties that constitute their chief breeding places and nurseries. After this shall have been accomplished, our more exclusive attention may be directed to such thorough and well considered cultivation and sustenance of the varieties as may, by abundance of healthful sap, prevent the hatching of the ovæ or drown out the possible larvæ in their incipient stages; and then, if possible, accomplish the utter extinction of many species of our relentless foes. Or, falling short of actual extermination, we may at least so far reduce their numbers and their facilities for material increase that many years of after neglect will be required to enable them to regain their present potency as competitors for the products of our horticultural labors.

But as the darkest clouds are often lined with the highest bordering, so also are our numerous discouraging horticultural conditions ameliorated by cheering recollections of many past years of abundant plenty and the assuring prophecies from these of the many future years in which we may, in abiding faith, hope for the repetition of such blessings. Indeed, the entire history of Kansas fruit culture embraces so many pomological triumphs that it must be considered unpardonable weakness on the part of those who would despondingly contemplate the abandonment of the great work in which we have been, on the whole, so successfully engaged. More favorable seasons than the past two years have been the rule in Kansas, while these two have been decidedly exceptional. And as to the insect and fungoid antagonisms, as sure as man has been the chief creative work in organic life, so surely must we eventually triumph in our warfare with the physically weakest forms and families of the animal and vegetable kingdoms. Hence, *never despair* must be our motto so long as we maintain confidence in the superiority of man over all lower organic existences; and so long as the many cheering recollections of past horticultural successes retain their impression on our memory.

Feeling confident of the approval of our most earnest and progressive pomologists, I again venture to call attention to the matter of our new seedling fruits. The importance of new varieties, more specially of our orchard

fruits adapted to each peculiar locality by the special physiological effects of origination therein, is steadily becoming a more conspicuous feature in our horticultural lore. Admitting that we have many varieties in cultivation in Kansas that are doing admirably and hopefully; yet the fact that so many of our old Eastern favorites are utterly disappointing to us here most clearly proves that only in the localities of their origin and in others of closely corresponding conditions do any of our orchard fruits afford the most satisfactory returns to the producer. Such facts should energize our efforts for the production of new seedling for the varied local conditions of all parts of the State. Several very promising varieties have already been originated within our borders; but still there is room for many more, and our greatest pomological triumphs will most probably be yet achieved through *Kansas fruits of Kansas origin*.

The important matter of our forestry still claims, as heretofore, our earnest attention. The reports of our intelligent and judiciously selected committee on forestry is accompanied with practical suggestions. I must therefore limit my remarks to a few general observations on the subject. I think it is but voicing the most intelligent sentiments of our State to assert that no discouragements hitherto met are sufficient to induce us to abandon or even diminish, in any respect, our efforts for the advancement of this great interest of our State. With the many failures that have hitherto attended our various experiments in forestry culture. There have been mingled a sufficient number of successes to encourage continued effort. Wherever a single forest tree has been made to grow, the fact is thereby demonstrated that under like conditions other trees can be made to grow. And the physiological law is becoming well understood that when even the growth of a small nucleus of forest trees may be secured the effect on the immediate location is to raise the condition for further successes. And these conditions will in like manner become still more extended and so continually enlarge the area thus affected. With these considerations, the hope is surely reasonable that in time our vast treeless plains may be clothed with abundant forests, and that these in turn will secure such improved conditions of soil and climate as will richly bless the coming dense population of central and western Kansas.

To our committee on needed legislation, I must advise their earnest and unflinching attention to our forestry interests at the approaching session of the Legislature. Particularly should they revive the unfinished action of the last session on the subject of one or more experimental forestry stations in our State, and, if possible, secure the passage of some well considered law in relation thereto. To obtain full statistical statements of practical operations of such stations already established in other States will doubtless greatly aid the effort to secure a like provision in the law of Kansas. The vast interests involved in this forestry question must in time awaken the most stupid legislator to its proper consideration.

At this, our eighteenth annual meeting, it may be well to consider the propriety of compiling a proper digest of our past transactions. Such a digest, embracing in a well arranged and systematic form, all that is most worthy of lasting preservation in our numerous volumes of transaction, is becoming every succeeding year a greater apparent necessity. By commencing such a work now, we may have it in readiness for publication by the end of the second decade of our existence as a society—a very appropriate time for the opening of such a volume. The importance of such a work may be fairly understood when we refer to the fact that we have now about ten times the population in Kansas that we had during the earlier periods of our transactions. Hence much is contained in our earlier annual publications

which is now almost wholly inaccessible to nine-tenths of our present population. And, owing to the limited number of copies of each subsequent volume published, the desideratum is proportionally felt in regard to all our later issues. It should therefore be considered whether the preparation and publication of such a digest would not render much important horticultural information accessible to many thousands of interested parties now actually precluded from such opportunity.

The labor of preparing such a digest would appropriately devolve upon the respective chairmen of our standing committees, with provision that each shall avail himself of such assistance as may be obtainable from other intelligent horticulturists who may be willing to aid in the work. The special interest of such a volume, in making the successive stages of horticultural experiences in Kansas, would add largely to the practical value of the work, and render it a most acceptable volume for the libraries of all intelligent citizens of our State.

It is with very hopeful prospects of success that I may refer to the arrangements made for the exhibition of Kansas fruits, and other productions, at the Industrial Exposition now in progress at New Orleans. Notwithstanding the disappointments met in the handling of some of our consignment, the managers of the exhibition of our State horticultural and agricultural resources have met with such gratifying success in their collections that further triumphs for Kansas are among the strongest probabilities, in the great contest, wherein we have competitors from nearly the whole civilized world. Hence this Exposition is an event of almost unparalleled interest to the horticulturists of our State, more especially as the successes to be achieved then will become matters of world-wide notoriety. Wherefore the attractiveness of our display will not only be a matter most gratifying to our State pride, but must also largely increase the future demand for our fruit and farm lands, and consequently result in material advance of their market values.

As a further interesting feature of the New Orleans Exposition, I must call attention to the fact, that the annual meeting of the Mississippi Valley Horticultural Society will be held in the horticultural buildings on the Exposition grounds, in the month of January; where opportunity will be afforded of meeting and forming the acquaintance of many of the most learned, enterprising, and experienced pomologists of the United States. The combined attractions this presents will doubtless induce a large number of citizens of our State to visit the Exposition in January. Hence I may venture to suggest that it will be well for us to initiate arrangements at this session to render more economical and satisfactory our reunion there. The rates of fares on our lines of travel are already fixed on a very moderate scale and cannot probably be reduced; but during our stay at the Exposition it will add much to our enjoyment of the interesting occasion if we can arrange to secure accommodations there convenient for social intercourse with each other, and on such economical terms as will enable us to stay there long enough to take in the great show in fullest proportions.

In conclusion I must reiterate the suggestions so often, but by no means too often heretofore uttered, as to the great importance of continuing energetic effort for the development of the horticultural interests of Kansas. Our work thus far has conferred upon many thousands of new settlers in our State the full benefits of those experiences which have cost us so much to acquire. And we still meet, from time to time, in our sessions to collect our further experiences, and in turn to scatter these abroad with willing minds and willing hands. In this, our chief reward is the gratifications we receive from seeing the blessings these confer on the toilers in the horticultural fields of our adopted State; but at the same time, we each feel the individual benefits of our renewed interchanges of ideas and further experiences, and at each separation we fully appreciate that our increased stores of horticultural knowledge have more than recompensed the time and money spent, adding to these results the social enjoyments attending our meetings, we are by these varied inducements stimulated and encouraged in carrying on our work, so long as we may find to be useful and necessary. And this implies continued work for remote posterity.

The Veterinarian.

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

DISEASED UDDER.—My mare's bag is badly caked. When I took the colt from her to wean it, one year ago, she was hard to dry up and a lump about the size of a hen's egg formed in one side of her bag. Last spring she had a colt and this fall her bag is badly swollen again. I have used different applications, but none of them seem to do any good. [From the history, it is probable that the parts have undergone some organic changes which possibly may require some special treatment. If, however, the udder is hot, swollen and tender, a cathartic may be given and warm fomentations applied to the inflamed parts. If, on the other hand, it has become inflamed (hard), the udder may be well rubbed daily with a liniment made of mercurial ointment and olive oil, equal parts, mixed.]

A GOOD HORSE—Will always show well standing at rest. The man showing a horse for sale who keeps the animal constantly stepping about to show off is to be looked on with suspicion. The time to examine a horse is when he is at rest. It is then that his weak points will be shown. If the horse "flies up" at some object on the ground, near-sightedness may be suspected. If brought suddenly into the light from a dark stable, and the light oppresses him his eyes are weak. His gait and speed should be tried by actual service. At rest, if the horse is sound he will stand square on his limbs, without moving any one of them, the feet being placed flat on the ground, and all his legs plumb and naturally placed. If one foot be thrown forward, with the toe pointing to the ground, and the heel raised, or if the foot be lifted from the ground, and the weight taken from it, disease or tenderness may be suspected.

SPRAIN OF THE SHOULDER.—Sometimes the difficulty of ascertaining the real seat of lameness when situated in the foot, has been the occasion to refer the complaint to the shoulder; and the poor animal has, in consequence, been doomed to undergo the painful operations of blistering and rowelling. It is of considerable importance, therefore, to be able to distinguish sprains of the shoulder from other injuries. Mistakes will seldom occur if attention be paid to the following symptoms: The horse drags his toe along the ground from inability of the muscles in the shoulder to lift his foot; if he lifts his foot high, the shoulder cannot be much affected; motion gives extreme pain and the animal is unable to sustain any weight on the affected limb, he therefore rests on the toe alone; but if urged to walk, and especially down-hill, he catches up the limb with considerable quickness. On taking up the foot and bending the leg that it may be brought considerably forward, the animal evinces great pain, which he will not do if the foot is the seat of lameness. In severe sprains there will be heat and tenderness of the muscles, most frequently those below or immediately behind the point of the shoulder joint, close to the chest. The administration of laxative medicine, hot fomentations assiduously applied, with absolute rest and quietude, generally effect a cure. In severe and protracted cases, the treatment may be succeeded by occasional blistering.

All fowls that feather slowly are usually hardy. For instance, the Brahmas. It is owing to the fact that the drain on the system occasioned by quick feathering does not weaken them. Slow feathering does not weaken them. Slow

feathering while growing is an indication of a hardy bird.

Save Your animals much suffering from accidents, cuts and open sores, by using Stewart's Healing Powder.

Milk, either fresh or sour, buttermilk, skimmed milk, mixed with meal, or in any other form, is just the thing for fowls. It will pay better to give waste milk to fowls than to pigs.

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.

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 boar 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

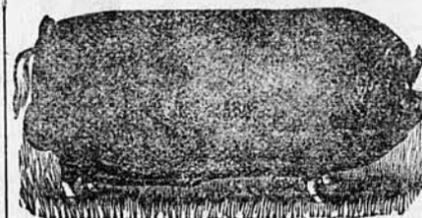
N. H. GENTRY,
Sedalia, Mo.

PLEASANT VALLEY HERD —OF— 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 medals at the leading shows in Canada in 1881. I am now prepared to fill orders for pigs of either sex not skin, or for matured animals. Prices reasonable. Satisfaction guaranteed. Send for catalogue and price list, free. S. McCULLUGH, Ottawa, Kansas.

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.

JAMES ELLIOTT Ablene, 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 10469. My hogs are noted for size, uniformly, fine heads, broad hams great depth, with short, strong legs. They are perfectly marked, having good coats of hair; with 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.

PURE-BRED Berkshire and Small Yorkshire SWINE.



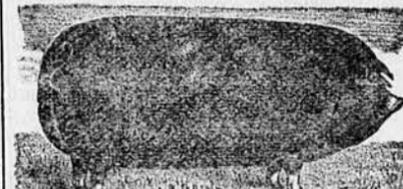
We are breeding 25 of the best selected sows of the above named swine to be found in the country, direct descendants from Imported Sires and Dams. We are prepared to fill orders for either breed, of both sexes, at the very lowest prices. We have tried small Yorkshires thoroughly, and are satisfied that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

BERKSHIRES.

We have for sale at reasonable rates an extra fine lot of Berkshire Pigs of all ages. Write us, telling us what you want, before you buy, and get our prices and terms. Very low rates by Express. **CHAS. ELLIOTT & SON,** Bladensburg, Knox Co., Ohio.



Chester White, Berkshires and Poland-China Pigs, fine Setter Dogs, Scotch Collie 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.

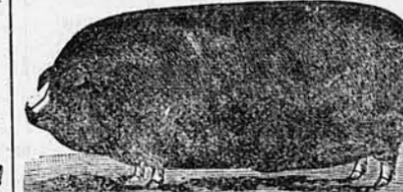


Owned by **ISAAC WOOD,** Oxford, Sumner Co., Kas.

ISAAC WOOD, Oxford, Kas.—PIONEER.—The sweetest herd of the Southwest for three consecutive years. Comprising the blood of all the popular strains of the day. Six years a specialty. Pig furnished not of kin. Quality of stock and pedigree first class. Price 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.

IF YOU WANT A Young Sow bred to our crack boars,	POLAND-CHINA SWINE	IF YOU WANT A lot of Plymouth Rock Fowls at \$1.00 each
IF YOU WANT A Young Boar Pig,		IF YOU WANT A Thoroughbred Short-horn Bull Calf,
IF YOU WANT A Young Sow Pig,		Write to MILLER BROS., JUNCTION CITY, KANSAS.
IF YOU WANT Any kind of Poland-China Swine,		

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 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.



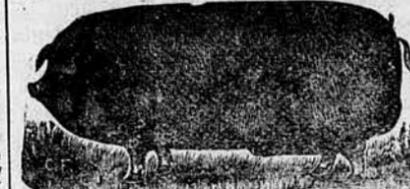
THOROUGHbred POLAND-CHINAS

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 pigs in 1883 and could not supply the demand. We are raising 1,000 pigs for this season's trade. We have 160 sows and 10 males we are breeding from. Our breeders are all recorded in American P.-C. Record. Pigs all eligible to record. Photo card of 43 breeders free. Swine Journal 25 cts. in 2 cent stamps. Come and see our stock; if not as represented we will pay your expenses. Special rates by express.

Acme Herd of Poland Chinas



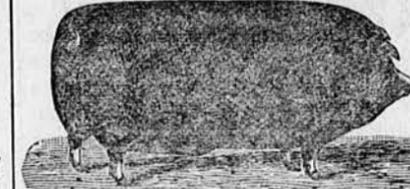
At the head of our select herd of 25 matured sows, stand two noted boars, Kentucky King 2661 and Challenge 4939, both prize-winners, and for individual merit unsurpassed in the State or elsewhere. Stock of all ages generally on hand for sale. Pedigrees "ill-edge," prices reasonable and satisfaction guaranteed. Address **STEWART & BOYLE,** Wichita, Kas.



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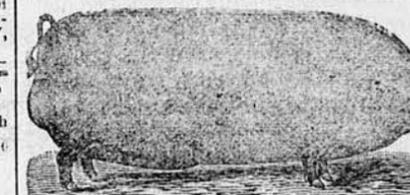
Breeders of IMPROVED POLAND-CHINA HOGS of the highest type. All well pedigreed. Correspondence solicited.

MEADOW BROOK HERD



OF POLAND-CHINA SWINE.

Breeding Stock recorded in American and Ohio Records. Tom Duffield 1675 A. P.-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.

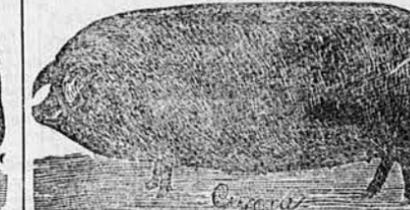


RANKIN BALDRIDGE, Parsons, Kansas,

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

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.

A PRIZE Send 12 cents for postage and receive free a costly box of goods which will help all, of either sex, to more money right away than anything else in this world. Fortunes wait the workers absolutely sure. At once address **TRUE & Co.,** Augusta Maine.

The Busy Bee.

Stimulating Bees in Spring.

Mr. G. M. Doolittle, in response to a request, wrote what follows for the *American Bee Journal*:

Before telling how I managed, I will describe one experiment. I tried to see if it payed to try to build the bees up in spring faster than they would naturally do it themselves; for, on this matter of pay, rests nearly all there is of bee-keeping, to the average apiarist. One spring, several years ago, I set apart ten colonies, all of which had plenty of honey, and were as near alike as possible to obtain ten colonies of bees. After seeing that all were in proper condition, five were left to themselves, and the other five worked according to the plan I shall describe. The five left alone were two weeks behind the others in swarming, and, upon footing up in the fall, I found they only gave an average of two-thirds as much honey as the other five which were stimulated. From this and many other experiments I have tried, I conclude it pays, and so attest my faith by adhering to that which gives me the greater profit.

About the 1st of May I go over the whole yard and examine each hive to see how much brood there is, and all colonies which do not have an equivalent to two and a half frames full, are shut up upon the frames of brood they do have, by means of the division board; while those which have that amount or more are allowed the whole hive. At this time these last named colonies have their brood nest reversed, by putting those frames having the least brood in them in the center of the cluster, and those having the most at the outside, thus causing the queen to fill these center combs with eggs as fully, or more so, than those were which were in the center before; while the brood in those now outside is not allowed to decrease at all. Thus quite a gain is made, with little danger of chilling any brood. In about a week I take a frame having considerable sealed honey in it, and breaking the sealing to the cells, by passing a knife over it; then, after spreading the frames apart, place this in the center of the brood nest. The removal of this honey by the bees causes them to feed the queen, and stimulate brood rearing equally as much (in my opinion) as any other method of feeding. If I did not have the frames of honey I would fill empty combs with sugar sirup, and use the same as frames of honey. As the honey is removed, the queen fills the cells with eggs, and at the end of another week another frame is added in the same way. The next time over, the brood is removed as at first, while at the end of the fourth week two frames instead of one are placed in the center of the brood nest, leaving one or two frames of brood between them. This brings us to near the 1st of June, and if one colony has brood in four frames at the time of commencing, and we use nine frames to the hive, we have but one more frame without brood in it in the hive. The next week this is placed in the center, and as soon as the bees get any honey, more than to feed the brood, the boxes are put on.

Those weaker colonies shut upon the frames having but little brood are left so till the frames are well filled with brood, when they are given a frame of honey in the center, and then manipulated as were the others, till they are in the same condition. If I wish as many colonies as possible, I begin to take brood from those having their hive full first, and give to the strongest of these weak ones, and later to the next strongest, till all are built up to strong colo-

nies. I formerly gave these frames to the very weakest first, but after losing several frames of brood, I learned that to give a frame of brood to a very weak colony of bees before settled warm weather was almost always sure to result in loss.

If I wish honey instead of increase, I work all the weak colonies till they have five frames of brood each, when four frames of brood, bees and all, are carried to another and united with it, while the frame having the queen upon it is placed back in the hive again. The five frames in the hive we wish to unite the four frames of bees with are spread apart, and the four frames placed in each alternate space so as to prevent any quarrelling, as bees thus mixed seldom quarrel or harm the queen. In two weeks this united colony will be strong as any in the yard, while the frame having the queen can be used for a nucleus or various other purposes. In this time of high prices of comb foundation they could be made very profitable by setting them to build comb, for they are almost always sure to build nice straight worker comb.

In places where pollen is scarce, it might be well to feed rye meal early in the season; but as long as plenty of pollen remains in the comb I do not think it pays. To feed, place in a shallow box and drop a few drops of honey on the meal, when you will put a bit of comb on a hot iron to make a smudge to draw the bees. Use only a few drops of honey, or you may excite robbing. I would invite all those who do not think that the above will pay, who live where a crop of clover honey is to be secured, to try a few colonies and see if they do not change their minds.

Pain and Dread attend the use of most Catarrh remedies. Liquids and snuffs are unpleasant as well as dangerous. Ely's Cream Balm is safe, pleasant, easily applied with the finger, and a sure cure. It clears the nasal passages and heals the inflamed membrane, giving relief from the first application. 50 cents at druggists. 60 cents by mail. Ely Bros., Owego, N. Y.

I have had catarrh in head and nostrils for ten years so bad that there was great sores in my nose, and one place was eaten through. I got Ely's Cream Balm. Two bottles did the work but am still using it. My nose and head is well I feel like another man. — Chas. S. McMillen, Sibbey Jackson county, Mo.

From Col. C. H. Mackey, 32d Iowa Infantry: I have now been using Ely's Cream Balm for three months and am experiencing no trouble from Catarrh, whatever. I have been a sufferer for twenty years. — C. H. Mackey, Sigourney, Iowa.

HEADQUARTERS FOR English Shire NORMAN HORSES.

Rosedale Stock Farm

WM. 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 30 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.



Stewart's STOCK REMEDY.

Is a Tonic, Appetizer and Blood Purifier for all live stock. The best Condition Powder in the world. 25 CENTS.

PERCHERON NORMAN, CLYDESDALE and ENGLISH DRAFT HORSES.



E. BENNETT & SON
Importers and Breeders,
Topeka, Kansas.
All stock registered. Catalogues free

RIVER VIEW Stock Farm.

50 HEAD OF IMPORTED NORMAN STALLIONS

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

River Side Stock Farm.

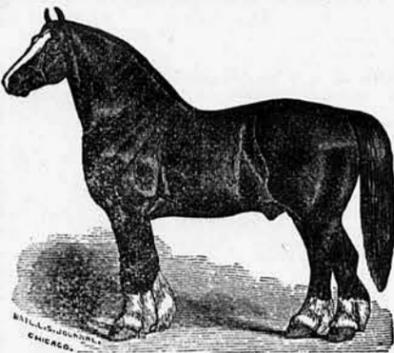


DEGEN BROTHERS, Ottawa, Ill.,

Importers of NORMAN HORSES. Large selection of imported stallions and mares—50 head imported this season. We are also breeding full-blooded 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.

OVER ONE HUNDRED CLYDESDALE, ENGLISH DRAFT AND PERCHERON NORMAN

Stallions and Mares arrived in August, '84.



Another importation just received ages since from two to four year old. Our stock won fifteen premiums at the Iowa State Fair of 1884; also sweepstakes on Clydesdale stallions and mares at the Percheron-Norman stallions, 300 High-Grade Mares, in fact to our most noted horse, or 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.

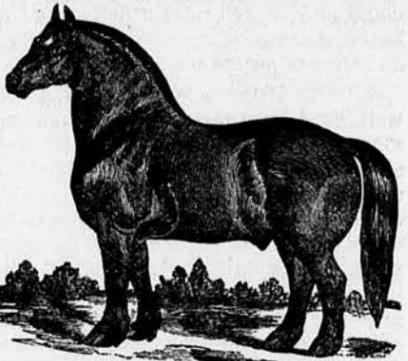
Ranch 2 miles west of Keota, Keokuk Co., Iowa, on the C. R. I. & P. R. R. 1 1/2 miles west of Washington, Ia. BINGMASTER & SONS, Keota, Keokuk Co., Iowa.

—175 HEAD OF— IMPORTED CLYDESDALES Now on Hand.



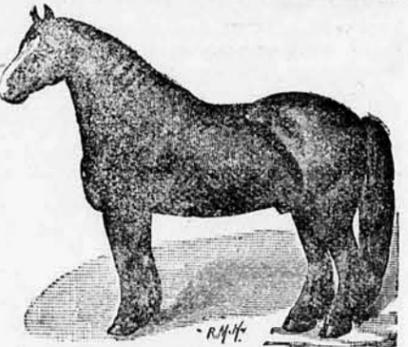
The largest importer of Clydesdale horses, the largest breeder of pure Clydesdales—37 M res now in breeding. Moderate prices. No equal opportunity can be found elsewhere to buy matured Stallions or young Stallions and Mares, all ages. Persons invited to examine the stock. Correspondence invited. For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

ROBERT HOLLOWAY, Alexis, Ill.



CRESS BROS.,

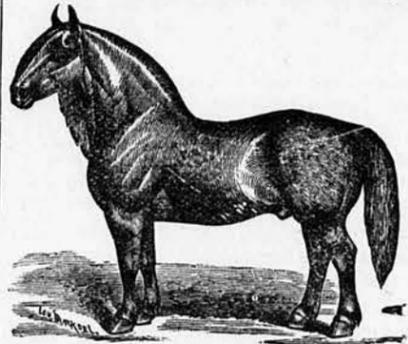
NORTH HILL STOCK FARM, Washington, Tazewell Co., Illinois. Importers and breeders of Clydesdale, English Draft and Norman horses. With our recent addition of a large importation August 20th, together with those previously on hand, have now one of the finest stocks in Illinois. **CLYDESDALES** made a 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.



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

Choice stock for sale. Also some fine Grades. Correspondence solicited and satisfaction guaranteed.

ENGLISH SHIRE HORSES.



PORTER MOORE, PARSONS, KAS.,
Breeder and Importer of
The Celebrated Shire Horses

Thoroughbred and Grade Stallions and Mares for sale. It will pay you to visit this establishment before going elsewhere. Also breed of **HOLSTEIN CATTLE.**

HAY CARRIER
FORKS, PULLEYS, ETC.
Farmers who order early, will get Rock Bottom Prices. Satisfaction Guaranteed. Send for Illustrated Circular and Price List.
CEO. W. KING, Box 11, Marion, O.

THE STRAY LIST.

HOW TO POST A STRAY.

BY AN ACT of the Legislature, approved Feb 27, 1866, section 1, when the appraisal 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 notice 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 \$50.00 to \$500.00 is affixed 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 falls for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same. Any person taking up an stray, must immediately advertise the same by posting three written notices in many places in the township, giving a correct description of such stray. If such stray is not proven up at the expiration of ten days, the taker-up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered, also he shall give a full description of the same and its cash value. He shall also give a bond to the state of double the value of such stray. The Justice of the Peace shall within twenty days from the time such stray was taken up, (ten days after posting) make out and return to the County Clerk, a certified copy of the receipt 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 them shall be served by the taker up; said appraiser, or two of them shall in all respects describe and truly value said stray, and make a sworn return of the same to the Justice. They shall also determine the cost of keeping, and the benefits the 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 Dec. 17, '84.

Wabaunsee county--H. G. Licht, clerk. MARE--Taken up by John Cass, in Pottawatomie county, (P. O. St. Marys) one bay mare, no marks or brands; valued at \$40. MARE--By same, one black mare, white spot in face; valued at \$40. COLT--By same, one bay yearling horse colt, white spot in face; valued at \$20. COW--Taken up by William McMurray, in Maple Hill tp, September 1, 1884, one brindle cow, point of right ear broken off; valued at \$20. STEER--By same, same time and place, one red steer calf; valued at \$10. HEIFER--Taken up by J. Betzer, of Mission Creek tp, Nov 19, 1884, one 1-year old red and white heifer; valued at \$15. HEIFER--By same, one 1-year old red heifer; valued at \$10. HEIFER--Taken up by Jackson and Wallis, of Farmington tp, Nov 1, 1884, one 2-year-old spotted heifer, no marks or brands; valued at \$15. Shawnee county--Chas. F. Spencer, clerk. PONY--Taken up by Wm Johnson, of Mission tp, Nov 29, 1884, one dark bay horse pony, supposed to be 12 years old; valued at \$30. HEIFER--Taken up by Hugh Huzon, of Dover tp, Nov 28, 1884, one yearling heifer, spotted red and white, no marks, ears marked with under-bit out on one and fork in the other; valued at \$15. MARE--Taken up by J. Fry, of Dover tp, Nov 29, 1884, one bay mare, supposed to be 3 years old, no marks or brands, small star in forehead; valued at \$10. CALF--Taken up by Wm Owen, of Soldier tp, (P. O. North Topeka), Nov 25, 1884, one black steer calf from 8 to 12 months old, both ends of tail white, no marks or brands; valued at \$14. STEER--Taken up by F. A. Lafave, of Soldier tp, (P. O. North Topeka), one roan 2-year-old steer, branded on left hip; valued at \$20. CALVES--Taken up by L. B. Garlinghouse, of Topeka tp, (P. O. Topeka), Dec 11, 1884, 4 red and white spotted spring calves, one a heifer; valued at \$38. COW--Taken up by C. F. Sexton, of Topeka tp, (P. O. Topeka), Nov 29, 1884, one cow, red spots on shoulders and neck, crop in right ear, square out in left ear; valued at \$35. PONY--Taken up by C. M. Stephens, of Topeka tp, (P. O. Topeka), Dec 9, 1884, one dark bay or brown mare pony, 5 or 6 years old, with saddle marks; valued at \$25. Woodson county--I. M. Jewett, clerk. FILLEY--Taken up by Jacob Nunemaker, in Everett tp, Nov 12, 1884, one bay 2-year-old mare, no marks or brands; valued at \$30. MULE COLT--Taken up by John Fowler, in Liberty tp, Nov 24, 1884, one sorrel horse mule colt; valued at \$20. HEIFER--Taken up by C. Miller, in Toronto tp, Nov 25, 1884, one red 2-year old heifer some kind of brand on right hip tips of both horns broken off, no other marks or brands; valued at \$20. HEIFER--Taken up by D. S. Park, in Liberty tp, Nov 21, 1884, one red heifer, 3 years old, a little white on forehead and on belly, branded H on right hip; valued at \$18. Bourbon county--E. J. Chapin, clerk. STEER--Taken up by James H. M. Iis, of Marmaton tp, Nov 27, 1884, one dark red yearling steer, white forehead and white belly, branded J on right hip; valued at \$20. MARE--Taken up by Gilbert Van, of Timber Hill tp, Nov 29, 1884, one gray mare, medium size, lame in right hind foot, about 12 years old; valued at \$25. HEIFER--Taken up by Adam Bollinger, of Marmaton tp, Dec 1, 1884, one deep red yearling heifer, white

about the feet, left ear notched and cut off, under-bit in right ear; valued at \$16. Franklin county--L. Altman, clerk. COLT--Taken up by John M. Gibson, of Hayes tp, one bay mare colt, supposed to be 1 year old, white strip in forehead; valued at \$10. HEIFER--Taken up by C. A. Otto, of Ottawa tp, one red yearling heifer branded O on left hip, no other marks or brands, medium size; valued at \$25. Brown county--G. I. Prewitt, clerk. HEIFER--Taken up by A. B. Allison, in Hamlin tp, Nov 19, 1884, one red heifer, 1 1/2 years old, medium size, one lop horn. Anderson county--A. D. McFadden, clerk. HEIFER--Taken up by Wm Gibson, of Monroe tp, Dec 1, 1884, one dark red 3-year-old heifer, short tail, short horns, dim brand on left hip; valued at \$20. Nemaha county--R. S. Robbins, clerk. HEIFER--Taken up by James Ragan, in Clear Creek tp, Nov 1, 1884, one red and white yearling heifer, under bit out of right ear, scar or brand on right side; valued at \$16. HEIFER--Taken up by A. J. Curtis, in Marion tp, Nov 30, 1884, one roan colored heifer about 2 years old, branded on left hip, point of right horn broken off; valued at \$20. Harvey county--John C. Johnston, clerk. MARE--Taken up by B. Brush, P. O. Walton N. v. 17, 1884, one dark bay mare, black mane and tail, ase unknown, branded on left side, had halter on; valued at \$25. MARE--By same, one sorrel mare, age unknown, white face, right fore and left hind foot white, branded on right flank, had halter and chain on; valued at \$25. Riley county--F. A. Schermehorn, clerk. HEIFER--Taken up by A. Munz, P. O. Ogden Dec 3, 1884, one light roan 1-year-old heifer with red neck, branded something like K. SOW--Taken up by Theo Weichselbaum, P. O. Ogden, Nov 22, 1884, one large black and white sow, ring in nose, white bushy tail, left ear cropped. Wyandotte county--Wm. F. Connelley, clerk. COW--Taken up by W. R. Ingram, of Delaware tp, Nov 25, 1884, one red cow, about 10 years old, has white spots, short stubby spike horns, brush of tail off; valued at \$18. Ford county--Sam'l Gallagher, clerk. OXEN--Taken up by Joseph Molitor, of Wheatland tp, Nov 1, 1884, two Texas oxen, one dun crop in left ear, the other dun and white, with slit in left ear, supposed to be 10 or 12 years old; valued at \$40. Lyon county--Roland Lakin, clerk. FILLEY--Taken up by J. C. Ames, in Americus tp, Nov 19, 1884, one light bay yearling filley, black ankle joints, dark mane and tail, under bit in right ear, no other marks or brands; valued at \$20. FILLEY--Taken up by L. E. Humphrey, in Center tp, Nov 19, 1884, one 2-year-old brown filley, white spot in forehead and stripe extending to nose; valued at \$25. HEIFER--Taken up by Andrew Chelberg, in Waterloo tp, N. v. 4, 1884, one red and white spotted yearling heifer 1-ft ear punched and other cut; valued at \$15. STEER--Taken up by J. W. Fowler, in Emporia tp, Nov 16, 1884, one red and white spotted yearling steer, under bit and tag in left ear; valued at \$20. HEIFER--Taken up by Manson Casell, in Center tp, Nov 16, 1884, one white 2-year-old heifer, a little red on point of ears no brands; valued at \$15. STEER--Taken up by S. O. Pitts, in Center tp, Nov 17, 1884, one red 3-year-old steer, some white spots, branded S on right hip and O on left hip, crop of right ear under bit in left ear, bob tail, small size; valued at \$25. HEIFER--Taken up by H. R. Milner, in Center tp, Nov 14, 1884, one red yearling heifer, no marks or brands; valued at \$15. STEER--Taken up by Joseph Rosillon, in Center tp, Nov 25, 1884, one red yearling steer, star in forehead, tip of tail white, both ears split, no other marks or brands; valued at \$15. STEER--Taken up by T. J. Emerick, in Center tp, one white yearling steer; valued at \$20. STEER--Taken up by J. J. Perrier, in Center tp, Nov 17, 1884, one red and white 2-year-old steer, bald face, branded 12 on left hip, no other marks or brands; valued at \$25. STEER--Taken up by Charles Pritchard, in Center tp, one yearling red steer, some white spots, white spot in forehead, under-bit in each ear, no other marks or brands; valued at \$20. Strays for week ending Dec. 24, '84. Lyon county--Roland Lakin, clerk. STEER--Taken up by L. A. Sall, in Fremont tp, Nov 19, 1884, one dark red year-old steer, chunky-built, short neck, rather long drooping horns, no marks or brands; valued at \$28. HEIFER--By same, one red and white spotted yearling heifer, medium size, chunky-built, no marks or brands visible; valued at \$16. HEIFER--Taken up by J. W. Dickason, in Jackson tp, Nov 23, 1884, one dark red and white 2-year-old heifer, crop and under bit in crop in right ear and crop off left ear; valued at \$18. STEER--Taken up by C. B. Hill, in Jackson tp, Nov 20, 1884, one light red yearling steer, no marks or brands; valued at \$20. HEIFER--Taken up by Henry Jacob, in Jackson tp, N. v. 29, 1884, one red yearling heifer, white spots on hips, some white between horns, white on belly; valued at \$15. HEIFER--Taken up by J. R. Orr, in Reading tp, Nov 28, 1884, one red and white spotted 2-year old heifer, indistinct brand on left hip; valued at \$25. STEER--Taken up by R. Gibbs, in Reading tp, Nov 24, 1884, one 2-year-old steer, mostly red, some white spots, white spot in face, both ears clipped, indistinct brand on left hip, white not given. COLT--Taken up by J. J. Flynn, in Waterloo tp, Nov 3, 1884, one dark iron gray horse colt, dim white spot in forehead, no marks or brands visible; valued at \$10. MARE--Taken up by F. M. Weaver, in Waterloo tp, Dec 13, 1884, one 2 or 3-year-old mare, 13 or 14 hands high, some white on hind feet and in forehead, no marks or brands visible; valued at \$30. Chase county--J. J. Massey, clerk. HORSE--Taken up by I. M. Smith, of Falls tp, Nov 17, 1884, one bay horse (getding), supposed to be from 3 to 4 years old, blazed face, black nose and tail, white hind feet half way up to hock joint, blatched brand between hip and stifle joint, a few white hairs on top of neck, no other marks or brands noticeable; valued at \$35. HEIFER--Taken up by F. V. Alford, of Bazaar tp, Nov 28, 1884, one yearling heifer, pale red, no marks or brands visible; valued at \$20. HEIFER--Taken up by K. J. Pink, of Diamond Creek tp, one 2-year-old heifer, red, branded on left side, brand not distinguishable, white in the forehead; valued at \$15. Woodson county--I. M. Jewett, clerk. STEER--Taken up by D. F. Landis, in Center tp, Nov 20, 1884, one red and white 2-year-old steer, crop off right ear and split in left; valued at \$20. STEER--Taken up by D. Campbell, in Liberty tp, Nov 28, 1884, one red 2-year-old steer, white tail and a little white on belly, branded on left hip with letter S, also a letter S on left horn, small size; valued at \$25. HEIFER--Taken up in Liberty tp by G. Griffith, Nov 29, 1884, one light red yearling heifer with small white spot on head, piece of left ear off, branded on left hip T; valued at \$15. STEER--Taken up by Thos McGill, in Perry tp, Nov 17, 1884, one 2-year-old red and white steer marked with a bit out of under part of left ear; valued at \$20. Harper county--Ernest S. Rice, clerk. HORSE--Taken up by Logan Roseborough, in Storhville tp, Dec 18, 1884, one bay horse, about 16 1/2 hands high, brand supposed to be I C and some white spots or tick bites; valued at \$40. PONY--Taken up by O. C. Hooker, in Ruella tp, Dec 2, 1884, one sorrel horse pony, large ankle on left fore

leg, scavin on right hind leg, branded H. S. on left thigh; value at \$12. Bourbon county--E. J. Chapin, clerk. STEER--Taken up by Wm A. Maxwell, of Timber Hill tp, one red and white spotted steer, 1 year old past; valued at \$15. STEER--Taken up by G. W. Hughey, of Lawrence tp, one brindle steer about 2 years old; valued at \$20. STEER--Taken up by Thos Johnson, of Franklin tp, one small 2-year old steer, a few white specks, branded with a letter C on left hip; valued at \$20. Elk county--J. S. Johnson, clerk. HEIFER--Taken up by J. K. P. Smallwood, in Liberty tp, Dec 6, 1884, one 2-year-old heifer, red sides, white back and belly, branded J on left hip; valued at \$16. Kingman county--Chas. Rickman, clerk. COW--Taken up by Jacob Cox, in Chicaska tp, Dec 5, 1884, one white cow, branded with bar with curve line at each end; valued at \$25. Wabaunsee county--H. G. Lecht, clerk. COW--Taken up by Gustav Droege, in Farmer tp, Dec 1, 1884, one red cow, 7 year old, right ear cut half off left ear rarely frozen off, bushy part of tail cut off; valued at \$25. Jefferson county--J. R. Best, clerk. STEER--Taken up by James Thompson, of Valley Falls, in D-laware tp, Dec 4, 1884, one red and white 2-year-old steer, no marks or brands; valued at \$30. At-hison County Chas. H. Krebs, clerk. COW--Taken up by M. D. Treat, of Shannon tp, (Atchison P. O.), on 19, 1884, one red cow, white strip in face, 7 years old, accompanied by calf about 2 weeks old; valued at \$15. MARE--Taken up by Jacob Wagner, of Kaploma tp, (Larkin P. O.), Nov 17, 1884, one bay mare, blind in right eye, ring-bone in right hind foot, 14 hands high, 7 years old; valued at \$15. Franklin county--L. Altman, clerk. HEIFER--Taken up by S. S. McConahan, of Richmond tp, one light roan heifer, 1 year old, red neck and ears, no marks or brands; valued at \$15. Riley county--F. A. Schermehorn, clerk. HEIFER--Taken up by G. W. McConethan, of Manhattan one red heifer, 3 years old, white face, white line on back. COW--Taken up by E. W. W. State, of Manhattan, one white heifer calf, ring in right ear. STEER--Taken up by Joseph Haines, of Zealande, one white and pale red steer, 2 1/2 years old, white spot in face, white under-belly, right ear cropped, slit in left ear. Montgomery county--H. W. Conrad, clerk. MULE--Taken up by R. A. Howard, of Cana tp, one black mare mule, 10 years old, a few white spots on rump; valued at \$80. COLT--By same, one bay horse colt, 6 months old; value at \$1. 2 MARE--Taken up by Jno P. Nollisch, of Cana tp, two bay mares 8 years old, white in forehead, the brighter bay branded C S on left shoulder; valued at \$25 each. Nemaha county--R. S. Robbins, clerk. HEIFER--Taken up by L. D. Tatman, in Kaploma tp, Dec 2, 1884, one yearling heifer, white in forehead, red, white spots on hips and hind legs; valued at \$14. Decatur county--R. A. Reasoner, clerk. PONY--Taken up by Frank Tacha, of Gaffield tp, (Jackson P. O.), Dec 1, 1884, one gray mare pony, 8 years old, marked with black spots on knees and hips, branded with indistinctable brands on left shoulder and hip; valued at \$25. Strays for week ending Dec. 31, '84. Pottawatomie county--J. W. Zimmerman, clk. MARE--Taken up by J. Ashcraft, in L. usville tp, Nov 4, 1884, one bay mare, white spot in forehead black mane and tail, pony-tail; valued at \$35. COLT--By same, one sorrel colt, white strip in forehead, both hind feet white; valued at \$20. COW--Taken up by G. W. Fowler, in Louisville tp, Dec 3, 1884, one cow, 11 years old, black and white neck and sides black white strip along back white in face, nose black, no marks or brands; valued at \$20. Elk county--J. S. Johnson, clerk. STEER--Taken up by Dennis Morris, in Longton tp, Dec 22, 1884, one roan steer, 1 year old past red neck and head and a white spot in forehead; valued at \$18. Allen county--H. W. Duffy, clerk. PONY--Taken up by Wm Davis, in Marmaton tp, Nov 15, 1884, one bay mare pony, 3 years old, no marks or brands; valued at \$25. HEIFER--Taken up by E. W. Hall, in Deer Creek tp, Nov 25, 1884, one heifer white under belly, slope under each ear, no brand; valued at \$25. STEER--By same, one spotted roan steer, crop off right ear and neck in under part of left, branded W W on right hip; valued at \$25. Jefferson County. J. R. Best, Clerk. HEIFER--Taken up by J. F. True, in Kentucky tp, Dec 15, 1884, one brown and white yearling heifer, no marks or brands. Lawrence county--Chas. F. Spencer, clerk. STEER--Taken up by Jerry Zinke, in Monmouth tp, Nov 28, 1884, one roan yearling steer, hog-ring in left ear; valued at \$20. HEIFER--By same, a red and white yearling heifer, hog-ring in right ear; valued at \$18. HEIFER--Taken up by Mrs M. J. Smith, of Auburn tp, Nov 29, 1884, a red yearling heifer, crop off right ear, white between fore legs; valued at \$10. Leavenworth county--J. W. Niehaus, clerk. MULE--Taken up by S. W. Fairba, of Reno tp, Dec 1, 1884, one bay mare mule, 10 or 12 years old, sore shoulder, neck and back caused by harness, also saddle marks; valued at \$8. Douglas county--Joel S. White, clerk. 7 SHEEP--Taken up by John Orr, in Ludora tp, Oct 27, 1884, seven sheep; valued at \$35. COW--Taken up by I. N. Bane, of Willow Springs tp, Nov 17, 1884, one roan cow, supposed to be 4 or 5 years old, mottled face, white stripe on left side, thin in flesh, lives some milk; valued at \$25. Rice county--C. M. Rawings, clerk. PONY--Taken up by Frank Thurston, in Union tp, Nov 31, 1884, one sorrel pony mare, 13 or 14 hands high, blazed face, Mexican brand on left hip, J on right hip, 14 hands high; valued at \$30. PONY--By same, one sorrel mare pony, about 14 hands high, hind feet white, blazed face, saddle and harness marks; valued at \$30. Miami County--J. C. Taylor, Clerk. HEIFER--Taken up by O. M. Ruddy, in Staron tp, Dec 2, 1884, one red and white spotted yearling heifer, no marks or brands visible; valued at \$15. Nemaha county--R. S. Robbins, clerk. STEER--Taken up by Sam'l S. Hen, in Reilly tp, Nov 4, 1884, one red roan steer, 1 year old, the marks or brands of said steer have not been altered, to his knowledge; valued at \$15. Pawnee County--J. F. Whitney, Clerk. MARE--Taken up by Ira B. Clark, in Gaffield tp, Dec 18, 1884, one sorrel mare, 10 years old, branded CW on left hip; valued at \$20. Franklin county--L. Altman, clerk. MARE--Taken up by I. B. Fish, of Ohi, tp, (P. O. Princeton), one sorrel mare, coming 3 years old, right hip knocked down, white spot in forehead, left hind foot white; valued at \$20. HEIFER--Taken up by R. J. Hood, of Lincoln tp, one 2-year-old heifer, light red, no marks or brands; valued at \$20. HEIFER--By same, one white yearling heifer with red spots; valued at \$15.

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The Poultry Yard.

About the Feeding of Fowls.
There is a great deal in feeding any kind of stock; that is, in the kind of feed given, and in the manner of giving it. An experienced poultry raiser in England has furnished a series of articles on this subject to the *Country Gentleman*. They contain many good thoughts. In treating this particular matter of feeding, he thinks that more attention ought to be paid to learning the nature and elements—food elements of different kinds of feed. Having given the subject much attention, he concludes that oats is the best food grain that is raised. It is the "best balanced," he says, "for general purposes." Barley and buckwheat come next, with wheat bringing up the rear. He calls these "well balanced" grains, when considering their merits as food. Then he proceeds:

These, as already stated, are the best balanced foods, for in this category we cannot include Indian corn, rice, beans and peas, all of which have some quality in excess, making each a food not to be given alone. Indian corn and rice have an excess of fattening properties, and are very suitable for feeding up, but ought not to be given to laying hens. Milk is also useful as a fattener, as it is greater in fat and oil, proportionally to its solids, than any grain.

It will be seen, therefore, that I prefer oats, buckwheat, barley and wheat, in the order named, for feeding laying fowls. But while this is so, and any of these can be profitably given to the poultry, I must confess that I like a mixed grain best of all. One great thing to keep birds in health, is to have a variation in the food. We ourselves know how soon one article of diet palls upon us if we have no change. So it is with fowls. I have carefully tried them, and under no system have I attained equal results as when feeding a mixed grain food. Some I know to prefer to vary the grain themselves, giving now oats, now wheat, now barley, but although this is undoubtedly better than a long continuance of one grain, yet my experiments have shown me that a mixed grain is to be preferred. The fowls can then make their choice, and the very presence of a variety seems to be a stimulus to them. If any of your readers have the grain at hand, I would suggest their putting down on the barn floor a bushel of wheat, a bushel of oats, a bushel of buckwheat, a bushel of barley, and half a bushel of peas or beans (small). This is a first-class mixture for a summer or autumn feed, but during the winter there may be added a bushel of small or cracked large maize, and an additional bushel of buckwheat. These grains can be put in layers upon the floor, then well mixed with a shovel, and sacked ready for use—a better plan than attempting to mix a handful of this and another of that, just when wanted. I do not know whether you get in America the Egyptian grain called doura or dari. It is a small white seed, usually selling at a reasonable price. If so, a bushel could be added with advantage to the mixture during the hatching season.

In a state of nature, fowls live entirely upon grain, green food and worms, but when domesticated, a different plan is advantageously adopted. I am a great believer in the use of soft food, in the shape of meal mixed with boiling water. Of late there has been an attempt to discourage its use, but I have not as yet seen any reason for changing the opinion I have always held, namely, that to get the best results from laying fowls, soft food must be given. There

can be no question, however, that a mistake has been made by giving too rich food in this way, to the injury of the fowls, but that is no proof that the system is a bad one. Soft food is a great help both in promotion of laying and the putting on of flesh, when of a right kind, and properly prepared.

The tall wheat and other grains of that kind, is best given in the form of meal, and I should always suggest its being ground. But any of the other grains named are good, save the Indian meal, so long as it is fresh. There is a food used in the southern counties of England which is regarded rightly as one of the very best that can be got, namely, ground oats. This is chiefly used in Surrey and Sussex, and consists of good stout oats, ground up husk and all. It is not oatmeal, for the oats are not kiln-dried. To grind it properly, the oats must be plump and dried, and the mill-stones newly dressed. Even then considerable power is needed, but it can be done, and is worth the trial. Beside ground oats, barley meal, coarsely ground wheat meal, and buckwheat meal, are all good, and the offal from millers, known as thirds, or pollard, or middlings, or boxings, is a valuable feed given with other meals. In this case also I believe in a mixture, and one part each of ground oats, barley meal, buckwheat meal or wheat meal, and middlings, well mixed, make a splendid feed. Only in very severe weather would I put with it any maize meal or pea meal. To this in cold or wet weather I have always added a little stimulating powder—but only then. What you have on your side in this way I cannot tell, but we have at least one preparation that is eminently suitable for the purpose.

But perhaps the most important part is in the mixing. Good meal badly mixed is worse than poor meal well mixed. The right way is to put as much of the meal as is wanted for the feed into a pail or tub, with any boiled potatoes or meat scraps that are available. When the center of the meal has been hollowed out to as near the bottom as possible, a little boiling water—actually boiling, I mean—must be poured in. This is to be stirred well with a strong wooden or iron spoon or stick, adding the water and stirring until the whole is moistened through. It must not be sloppy, but crumbly and moist, so that it will just stick together if made into balls. These should be fed to the birds either on the ground or in troughs, while quite hot, and as early in the morning as possible.

The question as to how often fowls should be fed is often asked, but the answer must depend upon the place where they are kept. More people over-feed than under feed. On large runs twice a day is quite sufficient, the first to be soft food, and the last hard corn, this latter to be given an hour before they go to roost. Where the size of the run is small, a handful of grain to each bird at mid-day is necessary. Food should only be given in sufficient quantity to laying fowls, so that they will eat every bit up, and be hungry for their next meal when the time for it comes round.

Poultry Notes.

Cabbage are splendid winter feed for poultry, and should be saved for that purpose.

During the last ten years the United States has imported eggs to the value of \$15,400,938.

An experiment recently made in poultry hatching from a yard containing several varieties of fowls over a year old, and from one containing pullets, hatched early in the season, resulted in

a marked difference in favor of the hens, the proportion hatched being three to two.



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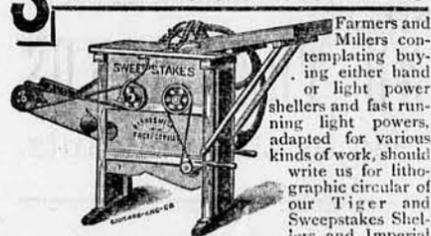
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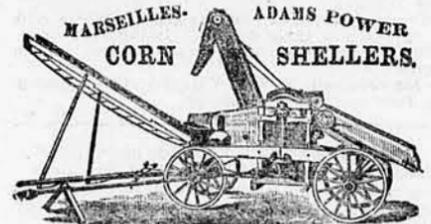
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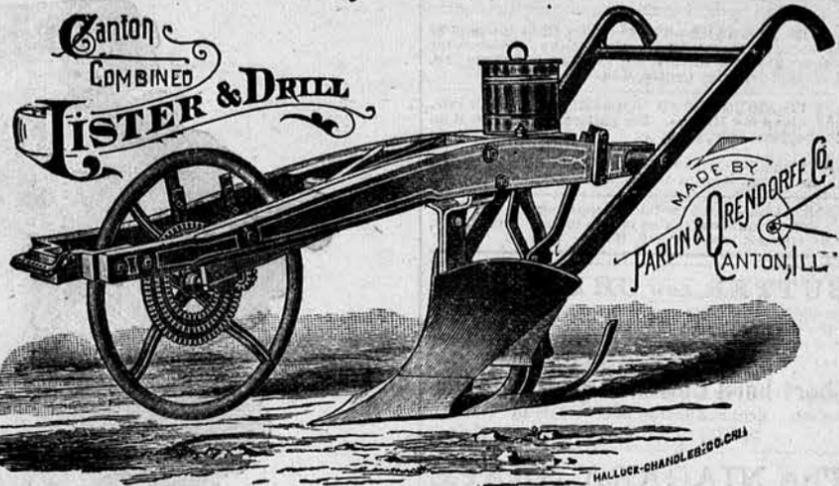
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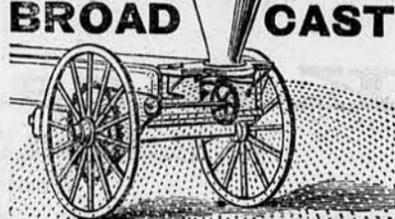
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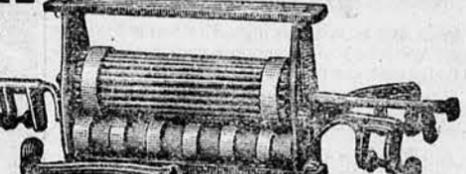
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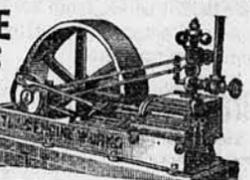


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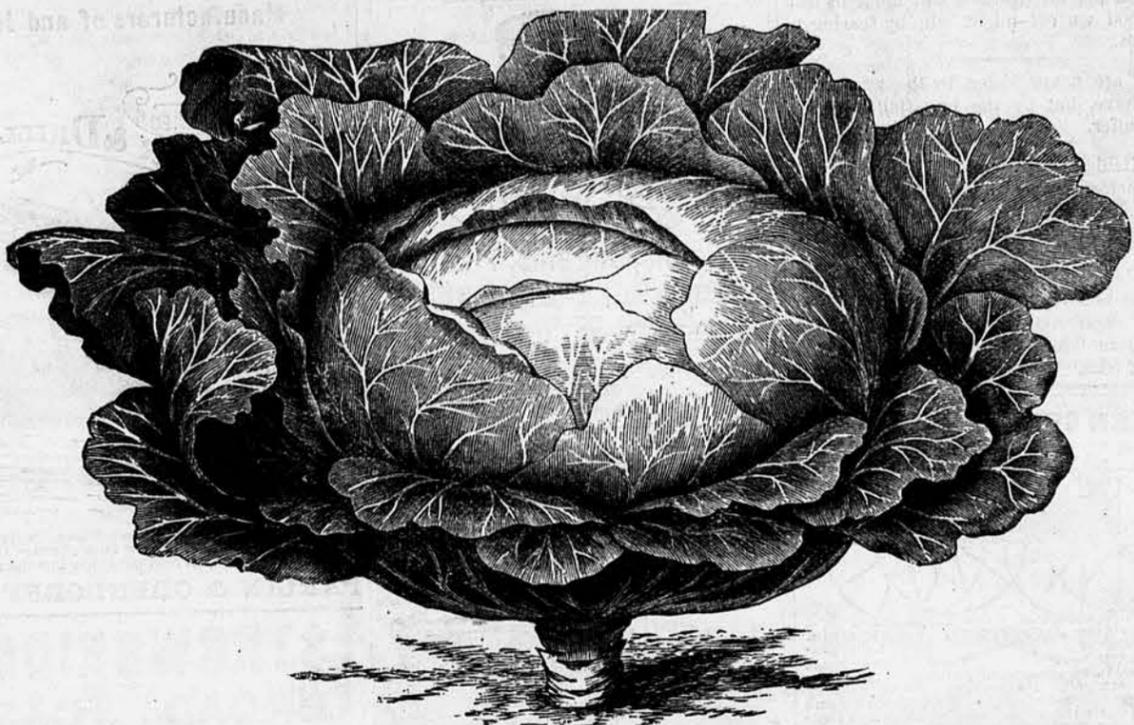
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