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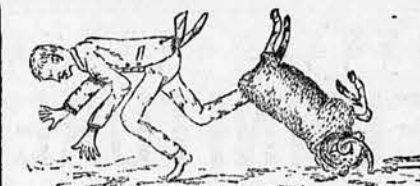
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Agricultural Matters.

CORN, POTATOES, APPLES.

From the agricultural department report for September we make the following extracts showing the condition of corn, potatoes and apples:

CORN.

The prospect in July for a large corn crop has been unexcelled since 1880. Condition then lacked scarcely more than two points of the standard of full development. In a single month the reduction of the crop expectation was equivalent to at least 350,000,000 bushels. There was a fall to 80.5 per cent. of a standard crop. It was caused by a serious drouth, which attacked only one district, but that a very broad and fertile one, usually contributing about three-fourths of the product of the country, though maize is grown in every State and Territory. The very center of the corn belt was attacked with greatest severity. Kansas, Missouri, Illinois, Indiana, Kentucky, Ohio, and Michigan suffered most. There has also been a recent drouth of considerable severity in Texas, Arkansas, and Tennessee, intensifying in effect during August, but coming too late for very serious injury of corn, which was progressing toward maturity before any material injury occurred. The direction of the prevailing winds of summer indicates the belts of equal rainfall or temperature, and point to the localities affected by similar meteorological phenomena. This season a large area was affected by drouth, but not equally. The line of direction is almost invariably north of east. A drouth which affects Kansas severely, strikes Northern Missouri and Central and Northern Illinois, and perhaps, Northern Indiana and Southern Michigan. A belt of drouth in Southern Nebraska is likely to pass through Iowa and Southern Wisconsin. This season the Kansas belt suffered most severely, while the more northern latitude of Southern Dakota and Northern Minnesota was almost entirely exempt from drouth. The State conditions of corn illustrate very accurately the local meteorological conditions, though they represent districts too large and irregular to show the comparative severity and actual direction of these drouth belts. The Signal Service may possibly map this district later in the season.

The present report shows a still farther loss in condition of maize, from 80.5 to 72.3 per cent., four points lower than last year's crop in September. The memorable crop failure of 1881 was indicated by 60 in September, and 66 in October, some improvements having resulted from more favorable conditions. The depreciation is nearly all in the West. The States of the Atlantic coast, and of the gulf, report larger crops than those of last year, already beyond the reach of disaster. In seven corn-surplus States the average of last month was 84; now 64. The figures are: Ohio, 68; Indiana, 61; Illinois, 57; Iowa, 78; Missouri, 67; Kansas, 42; Nebraska, 72. The average of New York and Pennsylvania is 96; of Georgia, 94; of Texas, 88; Tennessee, 80; and of Kentucky, 60.

While the average for the condition for the entire breadth is 73.3, the district which supplies the corn of commerce, promises little more than half of a full crop; a fact which will have a controlling influence on commercial prices for outweighing the relatively high condition of the crop in twenty-four States of the Atlantic, Gulf, and Pacific coasts. The average for this immense outlying region is 91. The large crop in the South will limit the

demand for western corn, and thus modify commercial prices, which must necessarily rule high.

In the northern portion of New England there is generally a large development of stalk and blade, from abundance of moisture, and the ear has not matured as well as in drier seasons. An early frost might do some injury, should it occur before the 20th instant.

In New York the crop is ripening well. An excess of moisture in low land has been somewhat unfavorable. It is practically beyond the reach of frost.

Local drouths are reported in Pennsylvania, without injury to general condition. In such districts lighter soil produce a harvest which is claimed to be "light and cobby." A Good crop, however, is generally indicated.

The entire Atlantic coast south, will have an unusually large corn crop, materially above the average. Georgia and Alabama, averaging 94, report the lowest condition from Maryland to Louisiana. The most injury in all this region has followed heavy rains in light sandy soil, with hot suns subsequently. The grey soils, and especially the red lands, hold the moisture better and enable the plants to endure the strain of extremes in heat and moisture. There is considerable local difference, as in the best of seasons. Many correspondents regard it as the "best crop for years," in some cases the best in twenty years, while others depreciate the prospect, on account of excessive moisture or heavy storms. In the Carolinas injury from heavy August rains is reported by many correspondents. There have been material losses from overflow of rivers. One might get an erroneous view from the reference to losses in the remarks, not at all consonant with the high averages of condition reported. In many counties in these States it is claimed that the crop will be ample for home consumption.

On the Gulf coast rain has been varied by seasons of drouth. In Alabama there has generally been too much moisture, especially heavy storms, producing overflow of bottom lands and rotting the prostrated plants. In Mississippi the drouth in August came too late for very serious injury, and a good crop is already matured. There is a large crop in Louisiana, one correspondent calling "it the largest since the war." There is perhaps less suggestion of damage from any cause than is found in returns from any other State.

Texas has so large an area, extending far into a region always dry, that the average is more depressed, as it is apt to be in any season. The average is 88, which indicates fully a medium crop in returns from this region.

Arkansas and Tennessee return considerable injury from late drouth, especially Tennessee, where the crop was so nearly matured when it became serious. That which was planted late was badly damaged. The low lands present a far better appearance than uplands.

In the West the history of the crop is a short one. It has been cut down by drouth, and the product will be likewise short. Yet there are counties in which the crop is held to be better than for several years. The soils inclining to be too wet produce abundantly. Corn of poor growth, late planted or poorly cultivated, has been cut for fodder, to some extent throughout the dry region. In November there will be returns of the extent of reduction of acreage harvested from this cause.

Chinch bugs have proved a serious pest in many places. The "stalks were black with bugs," according to some correspondents.

It is admitted that late rains have caused some improvement. In the esti-

mation of most reporters, the injury was too great for repair when the drouth was broken. There are points, however, where "the drouth still continues."

The quality of corn in all this district will, of course, suffer seriously, though there will be all grades, including the best grown in moist soils and those of permeable subsoils. There were areas in Illinois and elsewhere, planted very early, which have produced maize of superior quality, having ripened before the drouth became a burden. A few remarks of Illinois reporters will indicate fairly the tone of all in the dry region.

POTATOES.

There has been a heavy decline in the condition of the potatoes during the past month, the crop having encountered unfavorable conditions in every State where grown. The present general average is 67.3, a falling off of nearly fourteen points since August 1st, when it stood at 80.8. This is by far the poorest prospect ever noted at the same date, the lowest previous condition on September 1st during twenty years being 77 in 1881. In that year condition fell off to 67 in October, and the crop was one of the poorest ever gathered. Now with the vicissitude of another trying month yet to be met, condition is as low as at the last report of that year.

The decline has been general and shared in by every State. New England and the States north and west of Ohio have suffered the most severely, but from directly opposite causes. From Maine to New York there was a superabundance of moisture during the month, and as a consequence a tendency to rot is strongly developed. Some correspondents report growers as digging before ripe in hope of saving a portion of the crop. In the other section named drouth has caused an almost complete failure, while now quite generally broken, the rains usually came too late to save the crop.

Condition is high in the South and on the Pacific coast, though beginning to retrograde. In these two sections, should no further unfavorable conditions develop, there will be a medium crop grown, but on the whole the prospect now points to one of the smallest crops on record.

APPLES.

The apple crop will be short in every section where extensively grown. Prospects have been unfavorable from the beginning of the season, and condition has steadily declined to each report. Only in New England and New York was there at any time a prospect of even a medium crop, and their condition has seriously fallen off, suffering a marked decline during the past month. The changes in the principal States of this section since the August report have been, Maine, 75 to 62; Connecticut, 89 to 88; New York, 82 to 75; Massachusetts stands at 86 at each report.

Elsewhere generally the product will be very limited. The Atlantic and Gulf States lose from three to eighteen points during the month, variously attributed to drouth, rotting and dropping from insect injuries. Unless our correspondents have exaggerated the reduction, there will in none of this section be fruit for more than home consumption, and in some States not even that. The returns from Ohio westward, are of a very similar tenor, condition in most of the States standing at the lowest figures ever reported. There is an exception in the case of Michigan, where a crop but slightly under the average of non-bearing years is indicated.

On the Pacific coast condition is comparatively high, indicating a crop of medium proportions.

A Rare Opportunity for Profit.

The soundest, greatest and best mining enterprise in America to-day, whose shares are for sale, is the Tortilita. The property comprises twelve developed mines located in Arizona. Over \$150,000 in bullion has been taken out of the mines now being worked, and their permanency is demonstrated. The capital stock of the Tortilita Mining Company is \$1,000,000, based on property worth \$15,000,000, shares \$2 each; at that price they can be purchased by letter or in person at the Tortilita Mining Company's office, 57 Broadway, New York. The stock is being largely taken for private investment by bankers, merchants, farmers and working men and women. Subscription may be made for from one share upwards. The price is likely to advance materially. The Tortilita is second only to the famous Comstock in its output and promise.—*Boston Globe*.

The Sovereign Grand Lodge of Odd Fellows was held at Denver, Col.

McGarigle, one of the Chicago hoodlums, was expelled from the Knights Templar.

Rising of the waters of the Nile river is causing a great deal of damage to property along the banks.

Prospective medical students should have a catalogue of the preparatory course in Campbell University.

Three railroad men were killed near Wheeling by a yard engine running on them while they were at work on a bridge.

The imports of gold this week were \$3,440,693. The imports of merchandise were \$9,666,240, including \$2,696,933 dry goods.

The commercial department of Campbell University has had very flattering success. Whole expense for five months need not exceed \$75.

The course of business training prescribed in the Arkansas Valley Business College Journal, Hutchinson, Kas., is unsurpassed in the West.

The fall term of Pond's Business College, Topeka, Kas., reopens September 12. Business and short-hand courses excellent—no better east or west, north or south. Come.

Short-hand, type-writing, German, book-keeping, penmanship, arithmetic, commercial law, banking, etc., are thoroughly taught in the Arkansas Valley Business College, Hutchinson, Kas.

Judging from the indorsements of the Arkansas Valley Business College, Hutchinson, Kas., from the highest possible sources, it must necessarily be one of the leading commercial colleges in the West.

Prof. C. N. Faulk, of the Arkansas Valley Business College, Hutchinson, Kas., has been awarded the diploma for plain and ornamental penmanship, by different fair associations, over all the penmen of any note in the State.

Short-horn Bulls for Sale.

A number of choice young thoroughbred Short-horn bulls for sale at low prices and on satisfactory terms to purchasers. Address, at once, J. B. McAFEE, Topeka, Kas.

For Sale.

By a grandson of Stoke Pogis 3d 2238, out of highly bred imported cows, an inbred Coomassie bull. Also some choice cows with good butter records. Bulls ready for service and will be sold very low, if taken at once. Address S. B. Rohrer, Newton, Kas.

The Arkansas Valley Business College at Hutchinson, Kansas, is evidently an institution deserving the patronage of all interested in a business education. The institution comes squarely before the public asking for patronage upon its merits as a first-class institution. Mention this paper and write for a free copy of their *Business College Journal*.

The Trumbull Picture Frame Factory is to be complimented in securing a fine marine painting, executed by Wesley Webber. Price \$500. For a rich treat see this picture. They also have a large variety of mouldings in natural wood, bronze and gilt; also a full line of Etchings, Steel Engravings, studies, easels and brackets at reasonable prices. 702 Ks. Ave., Topeka, Kas.

The Stock Interest.

DATES CLAIMED FOR STOCK SALES.

OCTOBER 14.—W. T. Hearne and U. P. Bennett & Son, Short-horns, Lee's Summit, Mo.
NOVEMBER 24.—C. C. Logston, Short-horns, Independence, Mo.

FARM MANAGEMENT OF CATTLE.

There is no need to refer to the fact of low prices for beef, save that it may be used to emphasize the importance of economy in management. The country seems to have entered upon a period of low prices. All signs indicate that the period will be of long duration, and that changes will be exceptional and brief. Methods in all departments of work and business are changing, and the change is in the direction of lower prices though with fair profits. If a farmer raises ten thousand bushels of wheat, it costs him less per bushel, probably, than if he raises only one hundred bushels, supposing that he hires all his work done. If the big crop costs less per bushel than the small one, then, of course, the big farmer can afford to sell his crop for less money than the small farmer can and still make more money. The same rule applies in manufactures, in merchandising, and in the raising of cattle. The average farmer is not going into these speculations, but a great many are doing it, enough to set the small farmer to thinking how he must operate in order to hold his own and raise cattle as cheaply as any of them.

Management includes the whole field of operations. Every farmer in Kansas, no matter where his farm is located, ought to have some stock, the quantity to be determined by circumstances, the limit, at all times, being the capacity of the farm. It is not good policy to raise either more or less than that except in occasional favorable instances. A farmer cannot gauge his business so closely as to be able always to know in advance to a bushel of corn or a ton of fodder or hay, just how much feed he will have in any one year or in any series of years. But a farmer who was brought up to his calling will soon be able to run his farm with a precision equal almost to a machine. Management is the sign by which he conquers success.

Probably every farmer in Kansas, even though he be young in years and young in farm experience, has learned by this time that good stock is more profitable than poor stock. The first thing, then, in the line of good management of stock on the farm is to secure good animals. If he has a start of common cows, no matter how few in number, let him use pure-bred males on them. Don't use grade bulls of any breed. Use the best of whatever breed you wish to have. If you are not able to buy a bull of your own, join with some of the neighbors and have a company bull. If this cannot be done, purchase a bull calf of the desired breed and raise a bull. Half a dozen new farmers on the wild prairie, can, with a few dollars expenditure apiece, purchase a pure-bred calf of any of the best breeds. Manage in some way to get a good bull, and you have made a good start, for it is true that the head of the herd is half the herd, if the head is good. And then, after the first crop of grade calves comes, if possible obtain a different bull of the same stock to use on the heifers, and use the same bull if it can be done, on the same females every year, if his offspring is satisfactory. By following this line, there will be no inbreeding, and whatever bad there is in that will be avoided.

The next thing in line is to set up a different standard of keeping and caring

for the stock unless the old methods were very good. When a good bull is obtained, keep him well; have good quarters for him in bad weather, a good place to feed and water him and handle him at all times. Train him to gentleness, and always give him enough of good food. Do precisely that way with all the stock on the farm, and the profits of first-class management in this respect will surely follow.

Year after year, make, save and use all the good manure possible, and apply to the farm culture the rules adopted in management of the stock. Put the land in better condition. Divide the farm into fields of convenient size, and begin on one field, get that into first-class condition so that it will produce two or three times as much as it did before; then keep it that way, while another field is trained. In ten years, from one bull and two cows, on a raw prairie quarter section of land, a thrifty, energetic, go-ahead manager can easily have a choice herd of forty to fifty head of pure-bred cattle on a first-class farm with every convenience, the whole worth ten thousand dollars and upwards, according to location—all from good farm management of stock.

What to Feed.

Kansas Farmer:

Where a variety of crops are raised upon the farm there is usually very little difficulty in making up a good variety for the stock during the fall. It is important, if a good growth is kept up during the winter, that the stock should be in a good condition during the fall and, having a good variety ought to aid us materially in this. But usually such materials as cannot be stored to a good advantage should be used in the fall, leaving the rest for spring use.

Pumpkins, fodder, small potatoes, or other kinds of roots that are too small to store, should be fed out first; not that they should be used exclusively, but they should be made the principal food while they last. If stored under shelter corn-fodder can of course be kept in a good condition, but often it is shucked out, and if left in the field the quality deteriorates very rapidly, much more so than hay or oats if properly stacked.

With a good supply of other materials stock can be kept in very good condition by making corn-fodder the principal feed, provided, of course, that good shelter is given and the fodder is of good quality, and with the Western farmer this is one of the cheapest foods that can be secured for winter feeding. But there always comes a time in the spring before the pastures make a sufficient growth to turn in the stock, that unless the corn-fodder is stored under shelter it will hardly be in a condition to be considered as a feed of good quality, and this time must be planned for or we may be either obliged to let our stock go back or else be obliged to purchase feed.

I find the longer I try it that wheat bran can be used to a better advantage than almost any other material that can be purchased. It adds to the value of hay, straw, corn-fodder, or roughness of any kind, and also to pumpkins, potatoes, or almost any kind of roots, and it can in very many cases be used to a decided advantage and lessen very materially the quantity of grain required. The advantage with it is that it can be used at any time that it may be needed, and stock will be found to relish it at almost any time, so that a variety can be made by using it. I prefer to feed such materials as will damage by keeping, using bran if necessary to make them more palatable, and then using the hay, oats and corn that if not

needed can be kept over and still be a good feed, giving the stock sufficient at all times to keep up a steady gain, but at the same time giving good shelter and care, so that as small a quantity as possible will be necessary to do them. A variety will keep the stock healthier and thriftier than an exclusive diet of any one article, and it is good policy so far as possible to plan ahead, so that this can be secured.

Grain-Feeding With Grass.

We give an extract from a report of Prof. Morrow, of the University of Illinois, as we find it in connection with other matter in a recent issue of the *Breeder's Gazette*:

On few questions connected with cattle-feeding is there greater difference of opinion than concerning the profitability of feeding grain to cattle while they are on pasture. Sir J. B. Lawes has recently stated that the cheapest increase of live weight he can secure is that made by his cattle when on pasture. If this be true on his very high-priced land, about twenty-five miles from London, it certainly is still more true in any such region as central Illinois, where land is low in price, compared with labor, and where the pastures are good. In favorable seasons the pastures on the University farms will nearly carry a steer to the acre during five months' grazing—the steers about equally divided between yearlings and two-year-olds. Steers which have been grazed without grain usually increase in weight faster when placed on grain rations than do those which have had grain with the grass.

On the other hand, feeding grain with the grass makes less acreage of pasturage necessary; a larger gain can be secured in a given time; the cattle may be kept ready for market at almost any time; there is less probability of "shrinkage" from changes in weather or in food.

Allowing cattle to graze on good grass and clover is not only a natural but is an unsurpassed mode of feeding in such a region as ours, so far as the comfort, health, and thrift of the animals are concerned. Obviously sudden changes of food should be avoided; hence grain-feeding may almost always be profitably continued for a time after the cattle are placed on the pastures, and begun before they are taken from them in the fall. Equally clearly is it true that if the pasture is insufficient from any cause it should be supplemented by either other green food or grain.

Bearing in mind that the discussion is as to methods of producing cattle of fair to good quality with regard to economy in use of labor and foods, our trials have not shown it profitable to feed yearling steers, designed to be sold when thirty to thirty-six months old, grain when on grass, nor to feed grain during the best of the season—say from middle of May to first of August—to steers designed to be sold during late fall or early winter.

With us cattle may usually be put on pasture about May 1, and left until November 1, without exposure to severe storms or cold.

In 1880 four yearling steers of different breeds made an average gain of 332 pounds during these six months on grass alone. Four steers of like breeding and about the same quality made an average gain during the same time of only 235 pounds, being fed cornmeal in addition to the grass. In this case the pasture on which the cattle fed meal were kept proved to be inferior to the other in quality and quantity.

In 1882 ten yearling steers of different breeds made an average gain in same six months of 285 pounds on grass alone.

In 1883 two yearling steers, full fed corn on pasture, made gains of 490 and

525 pounds, respectively; while two, selected as of like age and quality, on grass alone, made gains of 400 and 480 pounds each in the six grazing months.

In 1885 four yearling steers on full feed from April 25, when put on grass, to September 1, made average gain of 281 pounds. Eight steers of like quality and age on grass alone, in same time, made average gain of 233 pounds.

In 1886 three yearling steers on grass alone made gains for the five months, from June 1 to November 1, of 240, 255, and 285 pounds each, averaging 260 pounds each, or 52 pounds per month.

Like comparisons cannot so well be made as to two-year-old steers, as it is not our practice to keep these on grass alone throughout the season.

In 1881 seven two-year-old steers, full fed during six grazing months, made average gain of 466 pounds, or 77 pounds per month. The greatest gain by one steer was 525 pounds; the least 415 pounds.

In 1882 eight two-year-old steers, with full feeding, made average gain of 380 pounds, varying from 305 to 415 pounds.

In 1883 four two-year-old steers, with like feeding, made average gain of 406 pounds, varying from 375 to 460 pounds.

In 1885, from April 25 to September 1, a pair of full fed steers, which had been selected as more than usually fine animals and which had been full fed from December 1 last, made gains of only 105 and 220 pounds each, while eleven steers of about same ages—two years old—but of less desirable quality, made average gain of 293 pounds each on grass alone, until August 20, when a small ration of green corn on the stalk was given them.

In 1886 six two-year-old steers of much more than average quality, on full feed for the seven months from April to November, made average gain of 386 pounds; the variation in individuals being well shown, the extremes being 230 and 500 pounds. Five steers of about the same age and breeding, but of not quite equal quality, on grass until August 15, after which they were fed corn, in same seven months made average gain of 375 pounds, the extremes being 335 and 420 pounds. In this case the lot of six were in higher flesh at commencement of the season, four of them having been on full grain feed during the previous summer.

The rather surprising comparative results in some of these cases are partially to be explained on other grounds, but may safely be cited as good illustrations of two difficulties in arriving at fully trustworthy results from trials such as those referred to, unless they are made with large numbers of animals or often repeated. These are individual peculiarities and variation in condition. There are striking characteristics dependent on race or breed, but frequently individuals of the same breed and reared under like conditions show equally striking variation. Aside from liability to sickness or accident, which may destroy the value of test, one or more animals of a small number may prove to possess unusually good or poor digestive and assimilative power; be noticeably "heartly" or "dainty" eaters.

Stock Notes.

Every farmer, however few the acres, may profitably keep a certain number of sheep, for not only in summer, but also in winter, will sheep consume fodder otherwise wasted.

If a pure blood male can be obtained at a moderate price, such that a single season's service would reimburse his whole cost, it certainly would not be wise to breed from a grade.

There is in progress a decided change in the public taste and demand for beef, pork and mutton, with less fat and more lean. It is not the lean caused by poor or scanty feeding, but that kind of meat which is pro-

duced by breeding the choicest class of animals, in the direction of marbled meat finely streaked with alternate fat and lean.

A horse can be fed on grain and bran, if he is not overfed. These foods are concentrated, and need to be given with caution. Cottonseed meal is not a safe food, but the whole seed, if quite free from lint, may be given in moderation.

Such butchers as pride themselves in furnishing their choice customers with such pork chops or roasts as can only be furnished from a certain class of hogs, are beginning to be particular about the character and condition of the hogs they buy.

The difficulty of getting mutton in the Northern markets without paying its full value in transportation has led Texas sheepmen to seek other markets for their fat sheep. As a result of this quite a trade is being established with Mexico, where an average net price of \$2 per head is realized.

While farm animals, as compared to their owners, are very plain livers, doing well on two kinds of feed, still, as with men, they vary in digestive and assimilative powers; and it is well to consider the winter season as the trying period for farm stock, for there is no denying that upon nearly all farms it is such.

In former years the lovers of mutton demanded the fat Cotswold. Whether it be that the world is abandoning the robust exercise of the farm or the chase, and hence have not the taste, nor the digestive organs, to demand such fat mutton, or whether a higher intelligence suggests something different is needless to investigate.

Keep your hogs in good, clean fields; give them access to pure water, even though you should be compelled to dig a deep well for that purpose—a good pump and plenty of suitable troughs, cleansed every week, will cost but little, and will always prove a valuable outlay. Provide, also, in the driest part of the field, a good shelter both from sun and rain.

Prof. Bergstrand, of the Royal Agricultural Academy of Sweden, has published a most laudatory report on the virtues of sunflower seed cake as food for cattle. He states that it presents a remarkable constancy of composition rarely, if ever, met with in other cakes as met with in commerce. It contains from 13 to 16 per cent. of fat, and 35 to 36 per cent. of protein substances, and has, therefore, a nutritive value far above that of most ordinary feeding stuffs, besides which it has a most agreeable taste, and is altogether free from bitter or any injurious matters.

The *Drovers' Journal* says that hogs in pasture ought to have a little medicine occasionally. In troughs near by their resting places, two or three times each week, place a composition of salt, soda, red pepper and ginger. To four parts of the first two articles add one part of the latter. Our common red pepper will do very well. They should, however, be well pulverized, and all the ingredients thoroughly mixed. Most healthy animals will readily devour salt. To obtain it they will also take the alkali and stimulant. The compound will not injure bird, beast, fish or man.

Those who handle Australian wools say that the fleeces are put up in better shape, and are more uniform in condition than those marketed from the flocks of the United States. The clippings from the legs, tag ends, etc., are thrown out, or marketed separately, making the fleece quite even. The fleece is often cleaner, too, and generally averages well up in the proportion of scoured pounds. It is in competition with these wools, grown for a trifle of cost, that our American flockmasters need to make their quality of production and condition of marketing the very best possible.

Oatarrh Cured.

A clergyman, after years of suffering from that loathsome disease, catarrh, and vainly trying every known remedy, at last found a prescription which completely cured him and saved him from death. Any sufferer from this dreadful disease sending a self addressed stamped envelope to Prof. J. A. Lawrence, 212 East 9th St., New York, will receive the receipt free of charge.

Farmers and dairymen will do well to call and see our new Creamery Cans, for sale at J. J. Floreth & Co.'s, 713 Kansas avenue, Topeka.

In the Dairy.

About Mixing Cream.

It is a habit with all farmers' wives, we suppose, to mix cream of different gatherings in the same lot for churning. This is a very reasonable proceeding, for, although many persons know that, ordinarily, the cream of a single gathering will churn easier and quicker than a "batch" made up of several different gatherings, few persons have time to churn every day unless they make a great deal of butter.

But there is another feature about mixing cream that was gathered at different times, that many persons never thought about, though they have often wondered why they did not get more butter from the quantity of cream churned. In a recent issue of *Hoard's Dairyman*, attention is called to this subject, and as the editor refers to known facts, it may be well to quote his own words. "Not long since," he says, "a farmer's wife complained to us that she did not get the yield of butter from her cows that one of her neighbors did, and she wished to know if we could give her any light on the subject. Upon inquiry we found that the cows on both farms were natives and handled about alike. But when we inquired farther into the manner of caring for the cream, we saw at once where the difficulty lay. It was her practice to skim her milk every morning and put the cream in an earthen jar, which was kept in the cellar. Churning was done twice a week, if her husband or the boys were not too busy. But the particular point where she failed, was in putting the last skimming of cream into the churn immediately after it was taken from the milk. When we told her that she received but little, if any benefit from the last skimming thus handled, she could hardly be persuaded of the truth of our assertion. We are convinced that this mistake is largely indulged in by the makers of farm butter. Yet they might about as well throw the last skimming to the pigs, for there is where it finally goes in the buttermilk. The last skimming should be thoroughly stirred with the older cream and the whole kept from six to twelve hours, depending upon the age and acidity of the older cream, before churning. The way most people stir their cream fails of the desired result. They put in a cream paddle and simply whirl each layer or day's cream in a circle by itself without mixing the first and last thoroughly together. This is best done by turning the cream from one vessel into another. Then again, quite often loss is occasioned by mixing the milk of strippers with fresh cows. That the cream of different cows when mixed does not produce butter at the same time, with the same amount of churning, has been illustrated in the family of Mark Hughes, at West Grove, Pa. They had an Alderney heifer in good flow of milk, and a cow, a stripper; their cream worked together. It was observed that they did not make butter enough for the bulk of cream. The buttermilk looked rich and seemed to collect cream upon it. They put the buttermilk in the churn again after the butter came and made five pounds. They churned for a few minutes and found two or three pounds more of butter in the churn, showing that the heifer's cream had made butter first and that the cream of the old cow needed several minutes more churning. Where the cream of cows of such unequal milking periods are mixed together, great care should be taken that the whole is thoroughly mixed and ripened. Unless this is done, a considerable portion of the slower cream is washed into the

buttermilk as soon as the quicker cream comes to butter. There is a great deal in this point of unequal churning time in cream, and the only way that we know of to avoid loss, aside from churning each day's cream or each cow's cream by itself, is to see to it that the cream is frequently mixed and ripened together, so as to make as near as possible a homogeneous whole."

How Much Butter to the Pound of Milk?

This varies with seasons, food, breeds and individual cows. Sometimes a cow's milk is richer than it is at other times, even on the same kind and quantity of food, and it varies in this respect as the seasons change and as her food is changed. Weather has something to do with the relations between milk and butter, so have treatment and regularity of feeding. A writer in the *Philadelphia Record* refers to these variations and their causes and suggests that the quantity of milk required to produce a pound of butter depends upon so many circumstances as to render it impossible to estimate upon any certain quantity as the proper proportion. No two breeds of cattle possess the same qualifications and there is no herd of one breed made up of cows alike in capacity for either milk or butter. Milk is a variable substance, and even when some particular cow may be selected for experiment in the production of milk and butter she will fail to give a uniform quantity of milk of the same quality from one day to another. The seasons influence the yield, as is shown by the trial of a cow selected for purposes of experiment. Allowing two pounds of milk to represent one quart, the record shows that in January from fifteen pounds of milk one pound of butter was produced, while in February one pound of butter was made from fourteen pounds of milk. These months being winter months, when green food is usually scarce, it would naturally be supposed that in summer the cow would give a larger quantity of butter from a given quantity of milk than she would in winter, but her record was 21 pounds of milk to 1 pound of butter in March, 19 pounds of milk for 1 pound of butter in April, and 22 pounds of milk for 1 pound of butter in May. The quantity of milk required to produce a pound of butter during the remainder of the year was: For June, 54 pounds; July, 22 pounds; August, 25 pounds; September, 22 pounds; October, 18 pounds; November, 16 pounds, and December, 19 pounds.

It does not imply that during the summer season the quantity of milk yielded by the cow was less than that yielded in winter, but that it was not as rich in cream. These changes were effected, not by the quantity of the food, but by its quality, as the cow had abundant pasturage in June, although it required fifty-four pounds of milk to produce one pound of butter during that month. November to March are periods of the year when cows are fed on concentrated food, and consequently they receive more attention from the dairyman. The yield of milk may be less, but the proportionate quantity of butter may be greater. The time of calving also affects the quality, while the severity of the cold, as well as the shelter and protection given, must also be considered. The experiment shows how difficult it is to estimate upon the butter production of a cow. The food and its quality is the most important feature of management, and the tests of cows for a week only may not represent the capacity for a longer time. No matter what the breed may be, upon the management depends the value and capacity of the animal.

Butter Fifty Years Old.

The *Popular Science* tells this rather remarkable story of keeping butter: A crock of butter was lately taken out of a well in New York State, where it had lain fifty years. A Mrs. Jupp, who was a famous dairywoman near Albany half a century ago, used to lower her butter into a well on the premises which was noted for its very cold water. Mrs. Jupp would leave the butter hanging in the water for several hours, and when taken out it would be as hard and cold as ice. One day in 1834 she was lowering a crock of butter into the well, when the rope broke and the crock fell to the bottom. No effort was ever made to recover it. For the first time in its history this well became almost dry during the recent long drouth. A few days ago the present owner was cleaning the well out when he found the crock. Mrs. Jupp had lost fifty years ago. In taking the crock from the well the finder accidentally broke it. It was about one-quarter full of butter, which was as solid and sweet as it was the day it was put down half a century ago.

Dairy Notes.

The udder of a cow is a very complicated affair. Outwardly, it consists of a series of muscular bands crossing each other and attached to the abdominal muscles for the support at the mass of the organ. The teat is not a simple tube as has been supposed, but consists of a large number of ducts, which run into four or five or more channels or tubes, each of which discharges separately into the orifice of the teat.

A cement floor is not the best for a dairy, as it absorbs the drippings of milk and becomes foul in a short time. A good floor is of matched plank, with tight joints and painted, so that it will absorb no moisture. Whatever drippings fall from the churn may be washed off such a floor without leaving any traces. Brick is quite as absorbent as cement. A flagstone floor with close joints set in cement, is the best of all.

No man should milk a cow until the stable has been cleaned, the cows well carded and brushed, and, if necessary wiped off with a wet cloth and dried and everything that could possibly foul the milk is removed. Nor should he go to milking without previously washing his hands. A cow is naturally a clean animal, but when tied up in a badly arranged stable, where she cannot help but lie in filth, the owner is to blame and not the cow.

Henry Stewart says: If many persons living in large towns and cities would visit the milk dairies about 4 in the morning they would see such a sight as would set their stomachs against the use of milk ever afterward. We have seen such a stable, and even in a rural milk dairy, when the manure was only removed when it became too deep for the milkers to wade through it with rubber boots and the cows were plastered with dung. The filth of some of these places is inconceivable and incredible, and it is a sad thing to say that some farm dairies are not much better.

A correspondent says: I have nine grade Short-horn cows; seven of them were bought by me at auction sales and fairs at different times during the last five years at an average cost of \$40 per head, for the purpose of raising beef cattle, and until two years ago were used for that purpose only; the other two were heifers with first calf raised by myself. As beef was getting lower in price every year, I decided to educate my cows for the dairy and by a gradual and systematic course of feeding, brought them up to giving an average of 21 ounces of butter per cow per day, during the last winter.

IT WON'T BAKE BREAD.—In other words, Hood's Sarsaparilla will not do impossibilities. Its proprietors tell plainly what it has done, submit proofs from sources of unquestioned reliability, and ask you frankly if you are suffering from any disease or affection caused or promoted by impure blood or low state of the system, to try Hood's Sarsaparilla. The experience of others is sufficient assurance that you will not be disappointed in the result.

KANSAS STATE FAIR

If a line could be drawn or a standard raised which would show precisely what a good fair ought to be, the State Fair held at Topeka last week would probably cross the line several times, or raise above and fall below the standard in some respects. To begin with, the grounds were in excellent condition—better than ever before, and the buildings erected, changed and improved were all that was either needed or desired. The raising and re-arrangement of Exposition hall was a much needed change. When an observer is in the upper story of that structure, besides having opportunity for examining the art display before him and all around him, he has a good view of a beautiful and magnificent region of country.

Machinery hall is another monument of the wisdom and energy of the management, and the amphitheatre affords a comfortable resting place for a great many people. It was necessary to enlarge many of the old buildings and to construct new ones to accommodate the large number of animals entered for exhibition.

The display of agriculture was good, many of the articles and classes being very good, but there was not enough of it. There was plenty from the counties and individuals exhibiting, but the number of exhibitors was very small for a State like Kansas. Five years ago, twenty-five or more counties were represented by showy arrangements of the best farm productions of all kinds. This year, Jefferson county, Shawnee county, (by the Grange) Seward, Morton and Stanton counties—five in all complete the list of counties. There were some individual displays of great merit. But there ought to have been ten times as much from ten times as many counties. There was as good wheat, as good corn, as good oats, as good potatoes and all manner of vegetables on exhibition there as were ever seen in any country or in any state, showing that Kansas had some first-class farm products. Upward of a hundred samples of grain were arranged in single exhibit. Much credit is due the particular persons who interested themselves in sending and exhibiting what was in place. And the quantity was not small, perhaps, as this language suggests; but the KANSAS FARMER believes in big fairs, with everybody taking part and farmers showing the fatness of the land in immense display.

Machinery was more profusely represented. There were some new things in exhibition though among them we saw nothing that appears to have more merit than a device for watering hogs without muddying the troughs. There were some listing plows and implements for cultivating listed ground, and there were some stacking machines working on good principles. Samples of farm wagons built on the best known plans with new attachments for opening the rear end of the box, for braking, and for strengthening the standards, were exhibited. Among plows there was nothing, even though it was new, that appeared to be a substantial improvement upon those now in use, and the same may be said as to harrows. There were a few traction engines. Later and apparently more easily managed than some that have been shown at Topeka in past years. Some grain separators were exhibited.

In light vehicle work there were some beautiful specimens. Buggies and carriages that reflected shadows like a mirror, almost light enough to fly, and apparently strong and compact,

with new combinations of spring principle.

There were individual displays of potatoes and other vegetables and of fruit honey, bees, etc., all of more than average merit. It is impossible in our limited space, to mention everything on exhibition together with the owner's name for the number would run high up in the thousands.

Fruit showed well. Douglas county, Jefferson, Jackson and Shawnee counties were represented, and the general exhibition was very good both as to number and specimens, and there were a good many fine samples exhibited by individual persons. There were over three hundred different varieties of apples on the plates. One individual display contained sixty varieties of apples, twenty varieties of peaches and twenty of pears. The display of fruit may be classed extra good, considering the peculiarities of the season.

The far southwest—God bless the pioneers—did nobly. If the reader will look at the map of Kansas, he will find Morton county in the extreme southwest corner; Stanton county is immediately north; Seward county lies east, with Stevens county between them. Those three counties were represented by all the important cereals—corn, wheat and oats; by vegetable, potatoes, pumpkins, squashes, melons, etc., of excellent quality and large size; by grasses, native and tame, by cotton, sorghum, millet—briefly by a large assortment of farm products of good quality. What pleased us as much as anything else in connection with these "American desert" productions was, that the persons in charge of them were all young men. When you look at an eastern Kansas county display, you are apt to see a gray-haired man in charge. Young men have the reins in western Kansas. They are workers, they are heroes.

Exposition hall was attractive from the ground up. Mechanism, art, music, painting were present with a wonderful variety of hand work. Book-making machinery and material, sewing machines, pianos, organs, paintings, etchings, flower work, embroidery—a little city with its varied fine goods. After all, perhaps, the most interesting because most important exhibition was that of Kansas silk. In the third story of the building were exhibits from the Kansas Silk Station at Peabody. The station is the product of last winter's legislation, so that what was shown at the fair was produced this year. Mr. Horner, the superintendent of the station, was present and delighted to show and explain everything in his interesting collection. There were cocoons arranged in the form of flowers; there were loose cocoons of different colors; there were samples of silk reeled at the station under the direction of Mr. Horner; and then there was a piece of woven silk—twenty-six yards of it—made by the Belding Bros., of New York, from silk sent to them from the station last August, in response to a request from them. In that little space we had a representation of an "infant industry" in Kansas which will, we believe, yet grow to important proportions.

As to stock, the departments were all very full, and the individuals of all the classes were good specimens—many of them being very fine, indeed. At this point, the KANSAS FARMER desires to express regret that Chester Whites were not given an equal chance with other breeds of hogs. It is a first-class breed and there ought not to be any distinction made that operates as a discrimination against it.

We cannot particularize; this article is already too long; but it is the truth

briefly stated that there never was a better collection in Kansas of choice animals of all breeds. And the poultry display was as good as any of them.

Below we give the awards of premiums in the principal agricultural and stock departments.

LIVE STOCK EXHIBITS.

HORSE DEPARTMENT.

The horse exhibit was unusually large, as may be seen by the large number of exhibitors in each class, which is given in detail, as follows:

Percherons—Were shown by E. Bennett & Son, Topeka; Leonard Heisel, Carbondale; John Carson, Winchester; D. P. Gray, Whiting; A. Basel, Michigan Valley; W. T. Pence, North Topeka; and H. W. McAfee. The awards are as follows:

Stallion, 4 years and over, ten entries—first premium, A. Basel; second, E. Bennett & Son.

Stallion, 3 years and under 4—first and second, E. Bennett & Son.

Stallion, 2 years and under 3—first, W. T. Pence; second, Bennett & Son.

Mare, 4 years and over—first, H. W. McAfee.

Sucking mare colt—first, A. Basel.

Sweepstakes Percheron stallion, any age, thirteen entries—diploma to Leonard Heisel.

Sweepstakes aged stallion, showing best five of his get—diploma to A. Basel.

Clydesdale Exhibitors and Awards.—Displays were made by H. W. McAfee, Topeka; Burdick Bros., Carbondale; Geo. W. Barnes, Dover; Leonard Heisel, John Carson, E. Bennett & Son; G. A. Fowler, Maple Hill; Luther Adams, Storm Lake, Iowa; Wm. Finch, Topeka; J. G. Rennie, Meriden, and Geo. W. Brown, Dover, Kas.

Awards are as follows:

Stallion, 4 years and over, fourteen entries—first, G. A. Fowler; second, McAfee.

Stallion, 3 years and under 4—first, L. Adams; second, Bennett & Son.

Stallion, 2 years and under 3—first, Wm. Finch; second, Bennett & Son.

Stallion colt, under 2 years—first, John Carson.

Stallion sucking colt—first, G. A. Fowler.

Mare, 4 years and over—first, G. A. Fowler; second, Geo. W. Barnes.

Filly, 3 years and under 4—first, Leonard Heisel.

Filly, 2 years and under 3—Geo. W. Barnes.

Filly, 1 year and under 2—same.

Mare sucking colt—first, G. A. Fowler; second, H. W. McAfee.

Sweepstakes Clydesdale stallion, twenty-three entries—diploma to E. Bennett & Son.

Sweepstakes stallion, 4 years, showing best five of his get—diploma to H. W. McAfee.

English Shires—Were shown by Sexton, Warren & Offord, Maple Hill, and Wm. Finch, North Topeka.

Stallion, 4 years and over—first and second, Sexton, Warren & Offord.

Stallion sucking colt—first, Wm. Finch.

Sucking mare colt—first, same.

Cleveland Bay and French Coach Horses—Were shown by the Whiting Fine Stock Co., Whiting; John Carson, E. Bennett & Son, and L. Stout, Udall, Kas. The awards made for—

Stallion, 4 years and over—first, Whiting Fine Stock Co.; second, E. Bennett & Son.

Stallion, 3 years and under 4—first, E. Bennett & Son.

Stallion, 2 years and under 3—first, E. Bennett & Son; second, John Carson.

Mare, 4 years and over—first, L. Stout.

Sweepstakes stallion, any age, seven entries—diploma to Bennett & Son.

Grade Draft Horses—Exhibitors in this class were W. T. Pence, L. Stout, John Carson, Wm. Finch, Sexton, Warren & Offord, H. W. McAfee, A. Basel, E. Bennett & Son, Geo. W. Barnes, L. Stout (addresses given before); L. A. Knapp, Dover; I. C. Rino, Storm Lake, Iowa; M. Sweeney, St. Marys; VanHorn & Sons, Topeka; W. W. Waltmire, Carbondale; I. F. Sarver, Topeka; and Geo. Hollis, North Topeka; H. M. Dort and J. H. Dort, Valley Falls; C. J. Stanley, Valencia; Fred Bell, Michigan Valley, and W. M. Lytle and Fulford Bros., Topeka. Premiums awarded as follows:

Stallion, 4 years and over—first, L. Stout; second, W. T. Pence.

Stallion, 3 years and under 4—first, I. C. Rino; second, M. Sweeney.

Stallion, 2 years and under 3—first, W. W. Waltmire; second, VanHorn & Sons.

Stallion colt, 1 year and under 2—first, H. W. McAfee; second, A. Basel.

Stallion sucking colt—first, Geo. Holton; second, G. W. Barnes.

Mare, 4 years and over—first, H. W. McAfee; second, G. W. Barnes.

Mare, 3 years and under 4—first, Geo. Holton; second, G. W. Barnes.

Mare, 2 years and under 3—first, L. Stout; second, G. W. Barnes.

Mare colt, 1 year and under 2—first, E. Bennett & Son; second, C. J. Stanley.

Mare sucking colt—first, L. Stout; second, Stanley.

Team draft horses in harness, eight entries—first, \$25, to H. W. McAfee; second, \$15, Stanley.

Standard-bred and Roadsters.—A creditable display was made in this class by N. W. Neagles, T. Willits, G. W. Tanner, J. W. Hughey, H. Hansboro, E. G. Moon, Prairie Dell Farm, W. A. L. Thompson, J. H. Gravelly, H. Vesper, B. F. Golden, Chas. Robertson, A. W. Pilley and F. R. Foster & Sons, Topeka; J. G. Raney, C. P.

Leslie, Dennis Dreeman, Pauline; H. M. Holden, Kingsville; Warner & Cox, Maple Hill; Wm. Duncan and Burdick Bros., Carbondale; C. W. Sheldon, Burlingame; L. W. Taylor, Mt. Pleasant, Iowa; C. Leaman, Newton; G. W. Greaver, Tonganoxie; Webster & Son, Valley Falls; Shupe & Westbrook, Peabody; N. T. Kirby, Jerseyville, Ill. Awards for—

Stallion, 4 years and over—first, Geo. W. Greaver; second, Shupe & Westbrook.

Stallion, 3 years and under 4—first, W. A. L. Thompson; second, Prairie Dell Farm.

Stallion, 2 years and under 3—first, Shupe & Westbrook; second, G. W. Greaver.

Stallion colt, 1 year and under 2—first, Webster & Sons; second, H. Vesper.

Stallion sucking colt—first, Chas. Robinson; second, Prairie Dell Farm.

Brood mare, 4 years and over—first, Prairie Dell Farm; second, C. P. Leslie.

Filly, 3 years and under 4—first, same; second, A. W. Pilley.

Filly, over 2 years and under 3—first, R. H. Shockery; second, Shupe & Westbrook.

Filly, 1 year and under 2—first, C. P. Leslie; second, W. F. Foster & Sons.

Mare sucking colt—first, J. M. Hane; second, D. Dreeman.

Sweepstakes stallion, any age—G. M. Kelam.

Sweepstakes stallion, 4 years, and best five of his get—same.

Driving Horses.—Single animal to wagon, twenty entries—first, \$15, W. H. Stockwell; second, \$10, E. G. Sanders.

Double team to wagon, ten entries—first, \$15, C. E. Westbrook; second, \$10, R. Hines.

Horses for All Purposes.—In this class exhibits were made by H. W. McAfee, Chas. Robinson, VanHorn & Son, H. C. Lindsey, M. Sweeney, I. F. Sarver, L. Stout, Shupe & Westbrook, Nat. Biner, N. F. Kirby, G. W. Barnes, G. W. Berry; R. H. Shockery, Council Grove; Thos. Bell, Soldier. Awards were made for—

Gelding, 4 years and over—first, H. C. Lindsey.

Mare, 4 years and over—first and second, I. F. Sarver.

Filly, over 2 and under 3—first, L. Stout.

Filly, over 1 and under 2—first, G. W. Berry.

Mare colt, under 1 year—first, Thos. Bell; second, H. W. McAfee.

Mules and Asses—Were shown by Johnson & Williams, Silver Lake; W. H. Atkinson, Eskridge, and H. W. McAfee, and received awards for—

Jack, 4 years and over—first, Johnson & Williams.

Jack, 3 years and under 4—first, Atkinson.

Single mule—first, McAfee.

Sweepstakes Stallion—Any age or breed, thirty-five entries—gold medal to E. Bennett & Son.

Sweepstakes Coach Stallion—gold medal, same.

Sweepstakes, Best Show of Horses—Any age or breed, owned by any one firm in the State—\$100, E. Bennett & Son.

THE SHEEP DEPARTMENT

had one of the best exhibits ever shown, consisting of all classes. Heretofore it has been confined to Merinos, but this season the other breeds were exhibited by representative flocks. The exhibitors of long, also middle woolled sheep could not help expressing dissatisfaction at the inequality of prizes offered in favor of the Merino classes, as well as the management and judging by Merino breeders. It is hoped that this department will be made more equitable. In the Merino classes eighty sheep were shown by L. E. Shattuck and Jno. Kugler, of Missouri; forty-five by C. F. Stone, of Peabody, Kas.; forty by C. Keizer & Son, Emporia; fifty by Sam Jewett & Son, Lawrence, and sixty-seven by Reynolds & Daved, Mulvane. In the long wools, twenty-five sheep each were shown by U. P. Bennett & Son, Lee's Summit, Mo., and W. G. McCandless, Cottonwood Falls, Kas. Middle-wools were shown as follows: twenty-five by U. P. Bennett & Son; twenty-eight by Luther Adams Storm Lake, Iowa; twenty by W. G. McCandless; twenty-eight by Ed Jones, Wakefield, and thirty-two by McQuitty & Jaynes, Hughesville, Mo.

Merino Awards—The bulk of the awards in this class were won by L. E. Shattuck, of Missouri, excepting the following:

Flock of not less than ten ewes with their lambs and one ram, S. Jewett & Son, second premium.

Pen of three ewe lambs, Jewett & Son, second.

Ewe lamb, Reynolds & Daved, second.

Long-Wools Awards—Flock of five ewes and their lambs and one ram, first premium, U. P. Bennett & Son; second, \$10, W. G. McCandless.

Pen of three ram lambs, first, \$20, McCandless.

Pen of three ewe lambs, first, \$15, Bennett & Son; second, \$7, McCandless.

Pen of three ewes, one year old, first, \$15, McCandless; second, \$7, Bennett & Son.

Ram one year, first and second, \$15, Bennett & Son.

Ewe, one year, first and second, same.

Ram, any age, first and second, same.

Middle-Wools Awards—Flock five ewes, their lambs, and one ram—first premium, \$20, Luther Adams; second, \$10, McQuitty & Jaynes.

Pen of three ram lambs—first and second, \$22, Adams.

Pen three ewe lambs—first, \$15, McQuitty & Jaynes; second, \$5, Adams.

Pen of three ewes, one year—first, \$15, McQuitty & Jaynes; second, \$7, Adams.

Ram, one year—first, \$10, McQuitty & Jaynes; second, \$5, Adams.

Ewe, any age—first, \$10, McQuitty & Jaynes; second, \$5, Adams.

Ram, any age—first, \$10, Adams; second \$5, Bennett & Son.
Kansas Bred Sheep, Awards—Flock ten ewes, one ram, any age or breed—first premium, \$40, C. Keizer & Son; second, \$20, E. Jones.

Pen five ewes, any age—first, \$30, Reynolds and Daved; second, \$15, W. G. McCandless.

Ram, any age—first, \$20, Reynolds & Daved; second, \$10, McCandless.

Ewe, any age—first, \$10, Reynolds & Daved; second, McCandless.

SWINE DEPARTMENT.

The showing of swine never fails to reflect credit to this important live stock industry. All of the standard breeds were well and numerous shown. The judging was done by experts, giving almost unanimous satisfaction in every particular. A. W. Rollins, of Manhattan was the expert, assisted by A. N. Miller, of Junction City, on the sweepstakes. It is doubtful whether exhibitors would submit to the old style of "pick up" judges at this fair. The Poland Chinas were shown by V. B. Howay, Topeka; T. A. Hubbard, Wellington; R. Baldrige, Parsons; J. McKee, Wellington; D. F. Risk, Weston, Mo., and B. F. Dorsey & Son, Perry, Ill. Berkshires were shown by G. W. Berry, Topeka; T. A. Hubbard and M. B. Keagy, Wellington; N. H. Gentry, Sedalia Mo., and B. F. Dorsey & Son. The display of Chester White swine was made by W. W. Waltmire, Carbondale; A. E. Parker, Fountain, and E. H. Stewart, Valley Falls, Kas. An interesting exhibit of Yorkshire swine was made by Wm. Booth, Jr., Winchester, Kas., which attracted no little comment and attention. The only exhibit of Duroc-Jersey swine was made by C. H. Holmes, Grinnell, Iowa, which was one of the best displays ever made on these grounds of this notorious breed. The detailed awards are as follows in the

Poland-China Class—Boars, one year and over—first premium, D. F. Risk; second, T. A. Hubbard; honorable mention, B. F. Dorsey & Son; 15 entries.

Boar, six months and under one year—first B. F. Dorsey & Son; second, J. M. McKee; honorable mention, D. F. Risk; 7 entries.

Boar, three months and under six months—first, J. S. Risk; second, D. F. Risk; 12 entries.

Sow, one year and over—first, T. A. Hubbard; second, B. F. Dorsey & Son; honorable mention, V. B. Howay; 24 entries.

Sow, six months and under one year—first, B. F. Dorsey & Son; second, T. A. Hubbard; honorable mention, R. Baldrige; 16 entries.

Sow, three months and under six months—first, B. F. Dorsey & Son; second, T. A. Hubbard; honorable mention, D. F. Risk; 12 entries.

Sow and five pigs, three months and under six months—first, D. F. Risk; second, R. Baldrige; honorable mention, V. B. Howay; five entries.

Sow and suckling pigs, not less than five, nor less than 1 month old—first and second, V. B. Howay; 3 entries.

Sweepstakes, best boar of any age—B. F. Dorsey & Son; 15 entries.

Sweepstakes, best sow of any age, R. Baldrige; 23 entries.

Sweepstakes, best herd of any age—B. F. Dorsey & Son; 11 entries.

Berkshires—Boars, one year and over—first premium, N. H. Gentry; second, T. A. Hubbard; 8 entries.

Boar, six months and under one year—first, N. H. Gentry; second, G. W. Berry; 3 entries.

Boar, three months and under six months—first, T. A. Hubbard; second, B. F. Dorsey & Son; 7 entries.

Sow, one year and older—first, N. H. Gentry; second, M. B. Keagy; 18 entries.

Sow, six months and under one year—first, N. H. Gentry; second, B. F. Dorsey & Son; 7 entries.

Sow, three months and under six months—first, T. A. Hubbard; second, B. F. Dorsey & Son; 11 entries.

Sow and five pigs, three months and under six months—first, T. A. Hubbard; second, G. W. Berry; 5 entries.

Sow and suckling pigs, not less than five, nor less than one month old—first, M. B. Keagy; second, G. W. Berry; 2 entries.

Sweepstakes, best boar of any age—T. A. Hubbard; 10 entries.

Sweepstakes, best sow of any age—N. H. Gentry; 19 entries.

Sweepstakes, best herd—N. H. Gentry; 9 entries.

Chester Whites—Boar one year and over—first premium, W. W. Waltmire; 2 entries.

Boar, six months and under one year—1 entry.

Sow, one year and over—first, W. W. Waltmire; second, A. E. Parker, Fountain, Kas.; 5 entries.

Sow, six months and under one year—W. W. Waltmire; 2 entries.

Sweepstakes, best boar of any age—W. W. Waltmire; 6 entries.

Sweepstakes, best sow of any age—same; 7 entries.

Sweepstakes, best herd of any age—same; 3 entries.

THE CATTLE DEPARTMENT.

Every year shows a decided increase of cattle shown as well as a marked improvement in the quality of the exhibit. Never before in the history of the association were so many cattle shown. The beef breed were represented by fifty-five Herefords, sixty Short-horns, twelve Galloways, twelve Aberdeen-Angus, and twenty Red Polled cattle, and the dairy breeds by seventy-five Jerseys, thirty Holstein-Friesians, and fifteen Devons, although the last two named make

strong claims to both beef and dairy qualities.

Dairy Cattle, Jerseys.—The display of Jersey cattle was the largest and best ever shown by the following exhibitors: S. B. Rohrer, Newton, Kas.; G. P. Brown, Omaha, Neb.; C. H. Holmes, Grinnell, Iowa; Wm. Brown and D. D. Cocklin, Lawrence, Kas.; L. Keizer & Son, Emporia, and College Hill Farm and S. B. Bradford, Topeka.

The awards were as follows:
 Bull 3 years and over—first premium, \$25, Wm. Brown; second, \$20, S. B. Rohrer.

Bull 2 years and under 3—first, \$20, C. Keizer & Son; second, \$15, C. H. Holmes.

Bull 1 year—first \$15, G. P. Brown; second, \$8, C. H. Holmes.

Bull under one year—first, \$10, C. H. Holmes; second, \$5, Wm. Brown.

Cow 3 years and over—first, \$25, C. H. Holmes; second, \$15, G. P. Brown; honorable mention, S. B. Rohrer; 17 entries.

Cow, 2 years and under 3—first, \$20, G. P. Brown; second, \$8, S. B. Rohrer; honorable mention, Wm. Brown.

Heifer, 1 year and under 2—first \$15, G. P. Brown; second, \$8, S. B. Rohrer; honorable mention, Wm. Brown.

Heifer under 1 year—first, \$10, College Hill Farm; second, \$5, D. D. Cocklin.

Best herd, one bull and not less than four cows or heifers—first, \$50, C. H. Holmes; second, \$25, G. P. Brown; honorable mention, S. B. Rohrer.

Holstein-Friesians—A creditable and attractive showing was made in this class by Crow & Bellows, Colon, Neb.; C. F. Stone, Peabody; Wm. Brown, Lawrence; C. Keizer & Son, Emporia; J. G. Otis and E. S. Travis, Topeka; F. Fryburghouse, Hoyt, Kas.

Awards for bull, 3 years and over—first \$25, C. F. Stone; second, \$20, Crown & Bellows; honorable mention, Wm. Brown.

Bull 2 years and under 3—first, \$20, Freyburghouse; second, \$15, Stone.

Bull one year and under 2—first, \$15, Stone.

Bull under 1 year—first \$10, Wm. Brown; second, \$5, Travis.

Cow 3 years and over—first, \$25, Crow & Bellows; second, \$15, Wm. Brown; honorable mention, Stone.

Cow, 2 years and under 3—first, \$20, Stone; second, \$10, Travis.

Heifer, 1 year and under 2—first, \$15, Stone.

Heifer under 1 year—first, \$10, Stone; second, Travis.

Best herd of one bull and four females—first, \$50, Crow & Bellows; second, \$25, Stone.

Devons—Rumsey Bros. & Co., Emporia, Kas., showed the only lot of Devon cattle, consisting of fifteen head of representative cattle, sufficient to fill the classes. The breed attracted considerable attention from the many visitors.

Dairy Breed Sweepstakes—Herd of breeding cattle, one bull and not less than four cows—first, \$75, Crow & Bellows, Holstein-Friesians; second, \$50, Wm. Brown, Jerseys; honorable mention, Rumsey Bros. & Co.

Bull and four of his get under 2 years—first, \$50, Wm. Brown, Jersey; second \$25, College Hill Farm; honorable mention, G. P. Brown, Jersey.

The American Jersey Cattle Club special of \$100 for best herd of registered Jerseys owned in Kansas, consisting of one bull and four females—S. B. Rohrer.

Short-horns—The display of Short-horn cattle was indeed excellent, and composed of representative types of the breed as shown by Bill & Burnham and W. P. Higinbotham, Manhattan, Kas.; L. A. Knapp, Dover; H. W. McAfee, and H. R. Clark, Topeka; Luther Adams, Storm Lake, Iowa, and Clay & Winn, Plattsburg, Mo. In class Ex-Governor Glick acted as expert judge, and made the following awards:

Bull, 3 years and over—first, \$25, Clay & Winn; second, \$20, Higinbotham; honorable mention, Knapp.

Bull, 2 years and under 3—first, \$20, Luther Adams; second, \$15, Higinbotham.

Bull 1 year and under 2—first, \$15, Adams; second, \$10, Bill & Burnham; honorable mention, Higinbotham.

Bull under 1 year—first \$10, McAfee; second, \$5, Higinbotham; honorable mention, Bill & Burnham.

Cow, 3 years and over—first, \$25, Adams; second, \$15, Clay & Winn.

Cow, 2 years and under 3—first, \$20, Clay & Winn; second, \$10, Bill & Burnham.

Heifer, 1 year and under 2—first, \$15, Bill & Burnham; second, \$8, same.

Heifer, under 1 year—first, \$10, Adams; second, \$5, Bill & Burnham; honorable mention, Higinbotham.

Best young herd of one male and four females under 2 years, bred and owned by exhibitor—first, \$50, Bill & Burnham; second, \$25, Higinbotham.

Herd owned by exhibitor, of one bull and four females over 2 years—first, \$50, Clay & Winn; second, Higinbotham; honorable mention, McAfee.

Herefords—The show was composed of the largest exhibit ever made, and the judges, Messrs. W. H. Lord, Burlingame, and J. N. Winn, Plattsburg, Mo., gave satisfaction as competent experts. The display of this breed was made by the Early Dawn Hereford Cattle Co., Maple Hill, Kas.; J. S. Hawes, Colony, Kas.; Jacob Weideln, Peabody; Frank H. Jackson, Maple Hill, and F. R. Foster & Sons, Topeka. The awards were as follows:

Bull, 3 years and over—first premium, \$25, Early Dawn; second, \$20, Hawes.

Bull, 2 years and under 3—first \$20, Hawes; second, \$15, Early Dawn; honorable mention, Jackson.

Bull, 1 year and under 2—first, \$15, Early Dawn.

Bull, under 1 year—first, \$10, Early Dawn; second, \$5, Hawes.

Cow, 3 years and over—first, \$25, and honorable mention, Hawes; second, \$15, Early Dawn; 12 entries.

Cow, 2 years and under 3—first, \$20, Meidlein; second, \$10, Jackson; honorable mention, Foster & Sons.

Heifer, 1 year and under 2—first, \$15, and honorable mention, Early Dawn; second, \$8, Hawes.

Heifer, under 1 year—first and second, \$15, and honorable mention, Early Dawn.

Best young herd of one male and four females under 2 years, owned and bred by exhibitors—first, and second, \$75, Early Dawn; honorable mention, Hawes.

Herd of bull and four cows over 2 years—first, \$50, Early Dawn; second, \$25, Hawes; honorable mention, Weideln.

Polled Angus—W. M. D. Lee, Leavenworth, Kas., had the exhibit of this breed consisting

of twelve heads Galloways. He was awarded six prizes.

Galloways.—A very representative showing of twelve head were shown by Geo. M. Kellam & Son, Richland, Shawnee county, Kas. The herd received eight premiums. No competition.

Red Polled Cattle.—This exhibit was made by Messrs. Sexton, Warren and Offord, Maple Hill, Kas., with five head of cattle, headed by the celebrated bull Peter Piper, which won first prize as aged bull. Gen. L. F. Ross showed fifteen head of these beauties, winning the rest of the first premiums in class.

Grand Sweepstakes Beef Cattle.—Bull and four of his get under 2 years, five entries—First, \$50, W. P. Higinbotham's Short-horns; second, \$25, Early Dawn Hereford Cattle Co.; honorable mention, J. S. Hawes's Herefords.

Best bull, any age or breed, sixteen entries—First, \$30, J. S. Hawes's Hereford bull Fortune; second, \$25, Luther Adams's Short-horns; honorable mention, Clay and Winn's Short-horns.

Best cow, any age or breed, twenty-eight entries—First, \$40, Clay & Winn's Short-horns; second, \$20, W. P. Higinbotham; honorable mention, Early Dawn.

Best herd of breeding cattle, of any breed, consisting of one bull and four cows, over 2 years, ten entries—First, \$100, Clay & Winn's Short-horns; second, \$50, Early Dawn; honorable mention, W. M. D. Lee's Polled Angus.

Best young herd, consisting of one male and two females, under 2 years, bred and owned by exhibitor, six entries—First, \$75, Early Dawn; second, \$50 and honorable mention, W. P. Higinbotham.

POULTRY DEPARTMENT.

The following is the list of awards as given by the Kansas State Poultry Association, at Topeka, September 19-24, 1887:

Dark Brahmans—Fowls, P. A. Briggs, North Topeka, second.

Light Brahmans—Chicks, Hughes & Tatman, North Topeka, first; J. G. Hewitt, Topeka, second. Fowls, D. W. McQuitty, Hughesville, Mo., first; Hughes & Tatman, second.

Black Cochins—Chicks, Harry Badders, Topeka, second. Fowls, same, second.

Partridge Cochins—Chicks, J. G. Hewitt, first; Lewis Vaughn, Topeka, second. Fowls, J. G. Hewitt, first; D. W. McQuitty, second.

Buff Cochins—Chicks, Hughes & Tatman, first and second. Fowls, Hughes & Tatman, first; L. A. Knapp, Dover, second.

Langshans—Chicks, D. W. McQuitty, second.

Plymouth Rocks—Chicks, John C. Snyder, Constant, Kas., first and second. Fowls, Hughes & Tatman, first; D. W. McQuitty, second.

Wyandottes—Chicks, J. G. Hewitt, first and second. Fowls, J. G. Hewitt, first; D. W. McQuitty, second.

Black Spanish—Chicks, Hughes & Tatman, first and second. Fowls, Hughes & Tatman, first and second.

Brown Leghorns—Fowls, J. R. Lofsty, Topeka, first; H. J. Lewis, North Topeka, second. Chicks, H. P. Williams, Lawrence, first and second.

White Leghorns—Chicks, W. M. Collins, Knoxville, Iowa, first. Fowls, Hughes & Tatman, first; W. M. Collins, second.

Houdans—H. P. McCandless, Cottonwood Falls, first; D. W. McQuitty, second.

Hamburys—L. Spangled, first; D. W. McQuitty, second.

Bantams—B. B. Red Games, W. M. Collins first and second. Golden Seabright, D. W. McQuitty, first and second. Pyle Game, H. M. Collins first and second.

White Game—Buck, North Topeka, first.

Games—Pit, Wm. Co. R, North Topeka, first; E. W. Keller, Topeka, second. B. B. Red, W. M. Collins, first.

Turkeys—Browze, D. W. McQuitty, first. Slate, D. W. McQuitty, first.

Geese—Toulouse, D. W. McQuitty, first. Embden, Hughes & Tatman, first; D. W. McQuitty, second.

Ducks—Pekin, Robert Hughes, Topeka, first; J. B. Kline, Topeka, second.

Guinea Fowls—Pearl, H. W. McAfee, Topeka, first and second.

Pea Fowls—L. A. Knapp, first.

Pigeons—Fan Tails, Geo. Hughes, first. Pigeons, (ten varieties), R. D. Arnold, Kansas City, Mo., first; Ed. Butts, Topeka, second.

Rabbits—J. G. Hewitt, first.

Kansas Incubator—J. N. Adams, North Topeka, first.

NOTABLE EXHIBITS.

MORTON COUNTY.—The southwest corner county of Kansas, with the flourishing town of Richfield as county seat, made a remarkably fine showing. Her display contained samples of corn, wheat, oats, millet, alfalfa, clover, native and tame grasses, Irish and sweet potatoes, cotton, sugar cane, broom corn, pumpkins, squashes, melons, onions, peanuts, castor beans, etc., in great profusion, of large size and fine quality, and mostly from sod growth. This new county is one of the best when it comes to soil, water, climate, and all natural advantages. And parties desiring further knowledge can secure same free by writing to the Morton County Land and Loan Co., Richfield, Kansas.

HUNTER CULTIVATOR COMPANY.

C. C. Hunter, Concordia, Kas., the inventor, had an exhibit of cultivators, both field and garden and seed drills combined. Mr. Hunter has had long experience as a florist, nurseryman and market gardener, and from necessity was led to invent the practical garden and field implements which he had on exhibition, attracting the interested attention of farmers generally. Mr. Hunter wishes to dispose of an interest in his inventions or the royalty for the same to a company in some leading city of Kansas, for with such a line of goods a manufacturing company could build up an immense trade throughout the West. For information address C. C. Hunter, Concordia, Kansas.

THE IMPROVED MONITOR.

The success of this press has led the company to make further exertions toward perfection in this line of machines, and this year they have the New Monitor. The operation of the press under trying circumstances was very satisfactory. Mr. R. J. Hulet, of Topeka, the agent, was handed the blue ribbon by the committee. This press, like the former, is a Western invention, but its merits are becoming known all over the country and the factory is crowded with orders.

THE LIGHTNING HAY PRESSES.

There were several in competition and among them the leading presses of the country. The Lightning is one of the most

practical machines in existence. It had its birth and development in the West. The writer has known it from the crude wooden affair it was some years ago, through its various stages, to its present perfectness. It is made of steel and is a machine which has cost its inventor, Mr. Sooley, of Kansas City, years of painstaking experimenting. It will lead its competitors in many points of excellence. Mr. C. O. Mook, the operator, made many friends for himself and his machine among the farmers who visited the fair. Kansas City Hay Press Co., Kansas City, Mo.

T. G. MANDT MFG. CO.

This sterling company, who have their factories at Staughton, Wis., are for the first time in our state, and although they manufacture some fifteen thousand vehicles each year, the entire output is consumed in the home markets, which is Wisconsin, Northern Iowa, Minnesota and Eastern Dakota. Portions of these districts have suffered severely from the drought this year, and in consequence manufacturers are looking for a great depression in business and are seeking new fields in which to operate. Kansas, especially the eastern portion, is so well known as the most prosperous district in the west, that the Mandt company decided to make their first exhibit at our state fair.

Their tent was stocked with vehicles of their own manufacture, and attracting attention from every class of visitors. The Mandt wagon is similar to other wagons in general appearance, but differs from all others in quality of workmanship and lasting qualities, and has in addition the benefit of several patents owned by T. G. Mandt. Their new steel gear wagon, which is covered by five different patents, has steel axle with thimble skein steel hounds; corrugated steel plated tongue and reach; steel stakes, steel ties, sixteen spokes in the hind wheel and fourteen in the front wheel, adjustable extension reach spring to hold up the tongue, double strapped box and other improvements. It is lighter in weight than a thimble skein wagon, and for strength and durability is as far ahead of the ordinary wagon as steel is ahead of wood. The warrant placed in this wagon is sweeping indeed, guaranteeing it in every respect for five years, and warranting the axles, tongue and hounds, against damage from runaway. Their thimble skein wagon has steel truss, axle with lock nuts, adjustable reach, spring to hold up tongue, double strap box, and for proportion and finish excels any other thimble skein wagon made.

Their two-seated spring wagon has a tubular oscillating reach, steel cross-bars, four elliptic springs, no fifth wheel to get out of order, no wood in gearings, no clips to get loose, a perfect center draft, draws equally from axle and box hangs low, is perfectly balanced, the weight being equally sustained on four springs and four wheels, and the bearing on the axle is close to the hub. The manufacturers guarantee it to suit the purchaser better than any other double buggy made, or purchaser may return the same. In single buggies they use a steel gear which has every appearance of wood. The improved top should be seen to be fully appreciated.

A branch house of this famous manufactory will probably be located in Kansas. In any event every one who may wish a modern wagon or buggy should address them for a catalogue before purchasing.

STANTON COUNTY.

This is one of the newly organized counties, was in the arena with a magnificent display of farm, garden and other products. In this wonderful exhibit from a supposed "American Desert," appeared samples of corn, oats, wheat, millet, hungarian and Johnson grass, Irish and sweet potatoes, sugar cane, native grasses, melons, pumpkins, broom corn, onions, beets, and many other articles too numerous to mention in the brief space allotted for this notice. These exhibits declare vividly that a fine territory of Kansas soil is only waiting to be put in condition, by manual labor, for the seed, and with suitable cultivation the result in production will be marvelous beyond comparison. The soil of this county is of a black sandy nature, underlaid with a rich marl, which of itself is a productive as the richest of manures, and only requires proper distribution to become a valuable fertilizer where such an article is required. This part of Kansas needs nothing of the kind at present, hence it is left dormant save as thrown to surface by excavation. Stanton county is directly north of Morton county, and Johnson is the capital seat, through which permanent surveys of the A. T. & S. F., and Rock Island railways have been made, with bright prospects of an early completion of same. The citizens of this county extend a cordial welcome to both old and young, and invites one and all to come and share with her in her present prosperity and future prospects. Further particulars can be obtained by addressing I. W. Pack, Johnson City, Kas.

KIRKWOOD WIND MILLS.

Among this class of machines, which of late have become a popular necessity, we noticed the "Waupun," the "Star," and the "Buchanan." But the one that captured the prize was a new candidate, the "Kirkwood Iron Wind Mill." Mr. R. G. Kirkwood, the inventor, was on the ground, and explained the peculiar points of merit his mill possessed to good advantage. The mill is made by the Progress Machine works, Summerfield, Md. Western territory for sale. Address R. G. Kirkwood, Summerfield, Md.

The Home Circle.

Life's Journey.

As we speed out of youth's sunny station
The track seems to shine in the light,
But it suddenly shoots over chasms
Or sinks into tunnels of night.
And the hearts that were brave in the morn-
ing
Are filled with repining and fears
As they pause at the city of sorrow
Or pass thro' the Valley of Tears.

But the road of this perilous journey
The hand of the Master has made;
With all its discomforts and dangers,
We need not be sad or afraid.
Paths leading from light into darkness,
Ways plunging from gloom to despair,
Wind out thro' the tunnels of midnight
To fields that are blooming and fair.

Tho' the rocks and the shadows surround us,
Tho' we catch not one gleam of the day
Above us, fair cities are laughing
And dipping white feet in some bay.
And always, eternal, forever,
Down over the hills in the west,
The last final end of our journey,
There lies the Great Station of Rest.

'Tis the Grand Central point of all railways,
All roads center here when they end;
'Tis the final resort of all tourists,
All rival lines meet here and blend.
All tickets, all mile books, all passes
If stolen or begged for or bought,
On whatever road or division,
Will bring you at last to the spot.

If you pause at the City of Trouble,
Or wait in the Valley of Tears,
Be patient, the train will move onward
And rush down the track of the years.
Whatever the place is you seek for,
Whatever your aim or your quest,
You shall come at the last with rejoicing
To the beautiful City of Rest.

You shall store all your baggage of worries,
You shall feel perfect peace in this realm,
You shall sail with old friends on fair waters,
With joy and delight at the helm.
You shall wander in cool, fragrant gardens
With those who have loved you the best,
And the hopes that were lost in life's journey
You shall find in the City of Rest.

—Ella Wheeler Wilcox.

Book-Making Before the Age of Printing.

Of course the Chinese were ahead of Europe. Their chronicles record printing upon silk or cotton in the century before Christ, paper being attributed to the first century after Christ. It is certain that many hundred years ago they had begun to put writing on transfer paper, lay the face downward on wood or stone, rub off the impression or paste on the transparent paper, cut away the wood or stone, and take an impression in ink which duplicated the original. First, probably, they cut the letters into the block, leaving white letters on black ground, which method, Didot thinks, was known to the Romans, and was the process referred to by Pliny; afterward they cut away the block, leaving the letters raised, to print black on white. This last process is attributed to Foong-Taou, Chinese Minister of State in the tenth century, who was driven to the invention by the necessity of getting exact copies of his official documents. Indeed, there is detailed tradition of a Chinese Gutenberg, one Pi-Ching, who in 1041 carved cubes of porcelain paste with Chinese characters, afterward baking them, and literally "setting" the porcelain types, by help of parallel wires on a plate of iron in a bed of heated resinous cement. These types he hammered or planed even, and pressed close together, so that when the cement hardened they were practically a solid block, which could be taken to pieces again by melting the cement. But Pi-Ching was born out of time, in the wrong country, and to the wrong language. The Chinese word alphabet contains at least 80,000, possibly 240,000, characters (the National printing office at Paris made types for 43,000), and for the lesser number the Chinese compositor would require a large room to himself, where he could wander among 500 cases, "looking for a sign," while Chinese wood-engravers will cut on pear wood, or on the hard waxen composition used for that oldest of existing dailies, the *Pekin Gazette*, an octavo page of characters for 40 or 50 cents—a hundredth part of the cost of coarse work, a thousandth of the cost of the finest work here. The Chinese printer, without a press, but with a double brush like a canoe paddle, inking the block with one end, and pressing the paper laid on the block with the dry brush at the other end, prints 2,000 sheets a day, on one side only, which are then bound into a book by making the fold at the front of the sheet, and stitching through the cut edges at the back. A fair-sized book is sold for 8 or 10 cents, and there is little inducement for improvement. Playing cards, invented prob-

ably in Hindostan as a modification of chess, and then engraved on ivory, were made in China and in Hindostan centuries ago, and thence they seem to have made their way into Europe, probably through Saracens or Jews, before 1400.

Meanwhile the business of book-making by copying had had a curious development in two directions. The industry so flourishing in Cicero's Rome had dwindled to nothing by the sixth century. The great libraries had been destroyed. Few could write their names; fewer could read. The Irish monks alone preserved the art of illuminating, and from the Island of Iona shed such light as they could throughout Europe. Charlemagne himself could not write, but used a curious monogram to picture his name; he was the more ready, it may be, to permit his English adviser, the monk Alcuin, to require that every monastery should maintain a scriptorium, and every convent or bishop should employ a permanent copyist, "using only Roman letters," for the making of books.—*Harper's Magazine.*

Running for the Train.

Why are women so liable to be late at the train? From unbusinesslike habits, lack of convenient pockets to put handkerchief, portmanteau, glove-buttoner and miscellaneous fallalerie into. Then they linger at the door for a dozen all-important "postscripts," as they do at the tail of a letter. More than all, they are always sure they can get there in five minutes, when, unless they were shot through a pneumatic tunnel, they could in no way get there in less than fifteen. When they are late and see the train slowly begin to melt away, why don't they stop at once? Because, like the valiant Irishman, they don't know when they are beaten.

Conundrums aside, running with fifteen pounds of dress skirt and as much of other "togger," a constricting corset and paper-soled agonizing boots, verges on the crime of self-destruction. Does your business require that you should ignore the laws of health, perhaps of life? If it does, go it! You won't catch the train, and you will cut an astounding figure—a racing human female always does—but your sacrifice will be all here. It will mean something. Or is all your business going into the next town to see what is going to be worn this summer, and perchance to invest in a dozen buttons for a new 8-cent calico wrapper? If so, down brakes. Walk calmly and dignifiedly home. Pin up the front of your wrapper with safety-pins sooner than risk bodily injury.

"I have in my life run for a train, but will never do it again," is the testimony of many women who have lived long enough to gather wisdom or acquire ill health. Running under proper conditions is not injurious, but in a state of anxious excitement it is accompanied by distressing consequences. These may not at once make themselves manifest, though it is no unusual thing to hear of fatal results from such rash performances. To be sure, the organs are not flung loosely into the body as some nervous hypochondriacs seem to imagine; all is well arranged and calculated for work and to withstand ordinary strain if the head be allowed to rule. But, however nicely a steam engine be constructed, or however powerfully built, it has its limit of pressure, and the driver, unless he were out of his mind, would not run without a gauge. It is not always making haste to hurry. The people who never have anything done are always in a hurry. If the work of creation were all done we should have nothing to do but to drop quietly into the sun. Avoid undue haste and live longer.—*Herald of Health.*

Nellie Grant Sartoris lives in Southampton, England. Her home stands near the river, and is as comfortable and as picturesque as most English homes are. The house is two centuries old, and has been added to by each generation. Besides this country house her father-in-law has given her a house in London. She is very comfortably fixed as far as money and houses go. Mrs. Sartoris is the mother of three children; the oldest, a boy, is ten, and the youngest, a girl, is six.

Stewart's Healing Cream, for chapped hands, face, or gentlemen to use after shaving. The cheapest and best article for the purpose in the world. Please try it. Only 15 cents a bottle at drug stores.

Abuse of Baby Talk.

I often wonder if otherwise sensible people not only realize how supremely ridiculous they make themselves, but what injustice they do their children by deluging them with that lingual dish wash, popularly known as baby talk.

I am well aware that in denouncing this little luxury I am flying in the face of public opinion, or rather of public practice, for I doubt if opinion has much to do with the matter. This is a free country. Life, liberty and the pursuit of happiness belong even to the poorest, and you invade one of mankind's most precious privileges when you assail the right of the individual to make an ass of himself.

But be it remembered that baby, too, has his rights. Young America, even in his cradle, has his constitutional guarantees. Let them be respected. Give him a chance at his mother tongue. Don't defer his education in order to indulge yourself in the pleasures of adult idleness. Don't demoralize his ear for the sake of the satisfaction it gives his prim and severely proper maiden aunt to avail herself of her only legitimate chance at billing and cooing. Let that estimable spinster bill and coo by all means—if not to a lover, to a baby; but, in either case, for the sake both of the victim and the language, let her do it without actual violence to the vernacular.

Be the family rich or poor, high or humble, nothing is too good for its baby; and such mangled and mutilated fragments of language as fall to the lot of the average innocent are not half good enough for him. Moreover, they are an insult to his intelligence. No wonder the little stranger sometimes surveys the family field with a deprecatory gaze of dignified disgust that says plainer than words, "Have I come into a world of utter idiots?"

Far be it from me to enter a protest against diminutives. These have their uses. In certain—and sometimes uncertain—emergencies, they are priceless. In fact, there is nothing handier to have in the house. They are a very present help in time of trouble, a buffer in days of domestic vicissitude and danger. Would you appease an angry sweetheart, circumvent a cantankerous t'other half, pacify an incensed infant, the worth of the diminutive can scarcely be overestimated. It is a most invaluable auxiliary of moral suasion. But, even in the shadow of your own lares and penates, look to it that it does not get the best of you. *Facilis est decensus Avernus.*

There is no law of God or grammar to prevent your denominating the dog a doggy, or persuasively appealing to puss as pussy. Baby itself is a diminutive, and infinitely sweeter and dearer than its prototype. The trouble is that when people begin taking liberties with a language they don't know where to stop. I merely and modestly file a caveat against the further maltreating of our mother tongue by the multitude.

The odd thing is, that the majority of mankind seem to think there is a sort of virtue in torturing and twisting the language out of all semblance of symmetry and sense before applying it to infantile uses. Milk for babies is all right, and has scriptural authority, but how about skim milk? Possibly, genuine, unadulterated, vigorous Anglo-Saxon is pretty strong meat for a toddler. But, however that may be, baby must learn to manage it at least half way decently if you expect him to be President of the United States, and of course you do. And how is he ever going to learn it if he never hears it? It is not only the first step that costs, but the first that counts; and it is a standing marvel that children ever speak correctly when you consider the mangled and mutilated condition of the language when they first make its acquaintance.

Call the little ones "precious pets" and "rosy posies" and "pretty pearls." By no means abolish the one beauty of baby talk, its loveliness. Administer every sweet and endearing epithet you can lay your tongue to, but don't let the good old English words degenerate into gibberish and jargon. Put your caresses into your voice—some of our New England voices need them badly enough—and put not your trust in dropped or transmogrified consonants. It isn't so much what you say as the way you say it that matters. Some of Milton's stately but melodious lines would fall upon baby's tympanum with a far sweeter and more soothing sound than the

senseless slop that is usually ladled out to him. You might call him a parallelopipe-don, and, provided you pronounced the polysyllable torture of O'Connell's fish bag with caressing softness, I'll be bound baby would like it better than your "pitty itty sings," etcetera, ad nauseam.

Baby talk *per se* is all well enough. Its true inwardness appeals to everybody. I animadvert only upon its abuse and perversion by the thoughtless. The truth is that baby talk "as it is spoke" is a luxury only indulged in as a dissipation by the adult, without regard to the demoralizing effect it may have upon the infant ear and tongue.

Most of you who are addicted to the practice probably think baby likes it. But does he? Bless that little apostle of sweetness and light, and abate no jot or tittle of his joys! Give him pleasure in full measure, pressed down and running over, but why take it for granted that this gratuitous display of idiocy delights him?

Oh, ye of little faith! Why insult baby by presupposing him as big a fool as you are?—*Mary Norton Bradford, in Boston Globe.*

Fashion Notes.

The models of the coming bonnet will be due from Europe for inspection very soon.

Silver jewelry of all kinds is stated to be increasing in favor both at home and abroad.

Wide band bracelets of hammered silver are seen among the new things for the fall trade.

Royal purple will be the fashionable color for the coming season. At the fashionable resorts the popular color has been gray. It has been worn on almost all occasions.

During the coming season long trains upon toilets for dressy occasions will be worn more than for some time past; in fact, the use of long trains was on the increase last year.

The puffed and bishop sleeves, which the Athenians wore ages ago, continue popular, and will be worn during the fall quite as much if not more than during the summer.

Gloves of light gray and mastic kid, with the seams lapped, and finished about the wrist with a stripe of black leather, and having several rows of black stitching, are quite the newest.

In handkerchiefs the quaint-colored border designs and the narrow fancy edge hold their own in public favor, and probably will for some time to come. A novelty is shown of silk with wrought edge.

The jewelry of the olden time is again coming in extensively, as in the case of the brooch. Hoop ear-rings of diamonds will be largely worn this season, and when small are very pretty, as when in the ear nothing is seen excepting the diamonds, the setting being very light. Very large hoops will be worn, but not so much probably as the smaller ones.

If you have chapped hands or rough skin, use Stewart's Healing Cream. Only 15 cents a bottle. Gentlemen who suffer from a tender face after shaving are delighted with it. We only ask a trial. Stewart Healing Powder Co., St. Louis.

ROYAL
FULL WEIGHT
ROYAL POWDER
ABSOLUTELY PURE
ROYAL
BAKING POWDER
BAKING
POWDER
Absolutely Pure.

This powder never varies. A marvel of purity, strength and wholesomeness. More economical than the ordinary kinds, and cannot be sold in competition with the multitude of low-test, short-weight alum or phosphate powders. Sold only in cans. ROYAL BAKING POWDER CO., 106 Wall Street, New York.

The Young Folks.

Help One Another.

"Help one another," the snowflake said,
As they cuddled down in their fleecy bed;
"One of us here would not be felt,
One of us here would quickly melt;
But I'll help you and you'll help me,
And then what a big white drift we'll see."

"Help one another," the maple spray
Said to its fellow leaves one day;
"The sun would wither me here alone,
Long enough ere the day is gone;
But I'll help you and you help me,
And then what a splendid shade there'll be!"

"Help one another," the dewdrop cried,
Seeing another drop close to its side;
"This warm south breeze would drive me away,
And I should be gone ere noon to-day;
But I'll help you and help you me,
And we'll make a brook and run to the sea."

"Help one another," a grain of sand
Said to another grain just at hand;
"The wind may carry me over the sea,
And then, O, what will become of me?
But come, my brother, give me your hand;
We'll build a mountain and there we'll stand."
—Chambers' Journal.

The President's Speech at the Constitution Centennial, September 17, 1887.

I deem it a great honor and pleasure to participate in these impressive exercises. Every American citizen should on this day rejoice in his citizenship. He will not find the cause of his rejoicing in the antiquity of his country, for among the nations of the earth his stands with the youngest. He will not find in it the glitter and pomp that bedeck a monarch, and dazzle the abject and servile subjects, for in his country the people themselves are the rulers. He will not find it in the story of bloody foreign conquests, for his government has been content to care for its own domain and people. He should rejoice because the work of framing our constitution was completed one hundred years ago to-day, and also because, when completed, it established a free government. He should rejoice because this constitution and government have survived so long, and because they have survived with so many blessings, and have shown so fully the strength and value of popular rule. He should rejoice in the great growth and achievements of the past one hundred years, and in the glorious promise through centuries to come. We should not be duly thankful for all that was done for us one hundred years ago, unless we realized the difficulties incurred then in forming a more perfect union between disjointed States, with interests and opinions radically diverse and stubbornly maintained in the face of all discouragements. The fathers of the republic labored on for four long weary months in alternate hope and fear, but always with rugged resolution, never faltering in a sturdy endeavor sanctified by a prophetic sense of the value to posterity of their success, and always with unflinching faith in the principles which make the foundation of a government by the people, and at last their task was done. It is related that upon the back of the chair occupied by Washington as President of the convention a sun was painted, and that as the delegates were signing the complete constitution one of them said: "I have often and often in the course of the session and in the solitude of my hopes and fears as to its issue, looked at that sun behind the President without being able to tell whether it was rising or setting, but now at length I know that it is a rising and not a setting sun." We stand to-day on the spot where this rising sun emerged from political night and darkness, and in its own bright meridian light we mark its glorious way. Clouds have sometimes obscured its rays and dreadful storms have made us fear, but God has held it in its course, and through its life-giving warmth has performed his latest miracle in the creation of this wondrous land and people. As we look down the past century to the origin of the constitution, as we contemplate the trials and triumphs, as we realize how completely the principles upon which it is based have met every national peril and every national need, how devoutly we should confess with Franklin, "God governs in a nation of men," and how solemn should be the reflection that to our hands is committed this ark of the people's covenant, and that ours is the duty to shield it from impious hands. We receive it sealed with the tests of a century. It has been found sufficient in the past, and in all future years it will be

found sufficient. If the American people are true to their sacred trust another centennial day will come and millions yet unborn will inquire concerning our stewardship and safety of their constitution. God grant that they may find it unimpaired, and as we rejoice in the patriotism and devotion of those who lived a hundred years ago, so may others who follow us rejoice in our fidelity and in our zealous love for constitutional liberty.

The Peasant and the Geese.

A Russian peasant was one day driving some geese to a neighboring town where he hoped to sell them. He had a long stick in his hand and, to tell the truth, he did not treat his flock with much consideration. He was anxious to get to the market in time to make a profit, and not only geese but men must expect to suffer if they hinder gain, which the geese were doing every time they stopped to "cackle." The geese, however, did not look on the matter in this light, and, chancing to meet a traveler walking along the road, they poured forth their complaints against the peasant who was driving them.

"Where can you find geese more unhappy than we are? See how this peasant is hurrying on this way and that, and driving us just as though we were only common geese. Ignorant fellow, he never thinks how he is bound to honor and respect us; for we are distinguished descendants of those very geese to whom Rome once owed its salvation, so that a festival was established in their honor."

"But for what do you expect to be distinguished yourselves?" asked the intelligent traveler.

"Because our ancestors!"

"Yes, I know; I have read all about it. What I want to know is, what good have you yourselves done?"

"Why, our ancestors saved Rome."

"Yes, yes; but what have you done of the kind?"

"We? Nothing."

"Of what good are you, then? Do leave your ancestors at peace. They were honored for their deed, but you, my friends, are only fit for roasting."

Tunneling the Rockies.

One of the most prodigious engineering projects now on the tapis is that for tunneling the Rocky mountains under Tray's Peak, which rises no less than 14,441 feet above the level of the sea. It is stated that at 4,441 feet below the peak, by tunneling from east to west for 25,000 feet, direct communication could be opened between the valleys on the Atlantic slope and those on the Pacific side. This would shorten the distance between Denver in Colorado and Salt Lake City in Utah, and consequently the distance between the Missouri river, say at St. Louis, and San Francisco, nearly 300 miles, and there would be little more required in the way of ascending or descending or tunneling mountains. Part of the work has already been accomplished. The country from the Missouri to the foot of the Rockies rises gradually in rolling prairie until an elevation is reached of 5,200 feet above the sea level. The Rockies themselves rise at various places to a height exceeding 11,000 feet. Of the twenty most famous passes, only seven are below 10,000 feet, while five are upward of 12,000 and one is 13,000 feet. The point from which it is proposed to tunnel is sixty miles west of Denver, and although one of the highest peaks, it is by far the narrowest in the great backbone of the American continent.

The Thrasher and the Whale.

The passengers and crew of the steamer Takasago-maru, when on her last voyage from this port to Kobe, on the morning of Saturday, July 2, witnessed a sight often talked about but very rarely seen. It was the great sea fight between a thrasher (fox shark) and a whale. An eye-witness states that the thrasher first leaped out of the water close under the bow of the steamer, and, rising fully thirty feet in the air, came down on the back of the whale with a sound that convinced one of the terrible force of the blow. Every time the whale appeared near the surface this scene was repeated, and it continued until the combatants were lost sight of, fully two miles distant. Our informant states that the scene was very exciting.—Yokohama Gazette.

Interesting Scraps.

The hen that doesn't lay eats the most corn.
Total product of silver in Nevada, \$352,000,000.

The cramp often picks out the best swimmer.

A pair of scissors must part before they can meet.

The truest tale isn't always the most believed.

Annual silver product of North America, \$85,000,000.

Drunkenness turns a man out of himself, and leaves a beast in his place.

It cost England \$5,000 to purchase a garter for the Crown Prince of Austria.

The export of silver from the United States since 1848 has amounted to \$51,746,771.

He that can read and meditate need not think the evenings long or life tedious.

There is a hickory rocking chair at Huntingdon, Pa., which has been in use over 115 years.

Happiness generally depends more on the opinion we have of things than on the things themselves.

James S. Wethered, of San Francisco, owns a snuff-box made of the first lot of gold found in California in 1848.

Streams of water are issuing from crevices in the sides of the Sutro tunnel, California, a thing unknown before the recent earthquake.

Indulge in procrastination, and in time you will come to this, that because a thing ought to be done, therefore you can't do it.—Charles Buxton.

The Bank of England was established in 1694, and is banker to the government, receiving all taxes and paying all dividends and outgoings for public offices.

The circulation of the blood was discovered by Michael Servitus, a French physician, in 1553, rediscovered by Celsus in 1569, and more completely by Harvey in 1623.

The remarkable story comes from San Francisco of a boy who was vaccinated and upon his arm has come the picture of a cow's head. It is about the size of a standard dollar.

The Paris *Figaro* gives the following as an infallible remedy for fortifying the eye-sight: Rub with the fingers, night and morning, the temples and nape of the neck with spirits of lavender.

A crystal of alum twelve feet high and six feet in diameter was shown at the Royal jubilee exhibition in Manchester. It is of the finest quality, and is said to be the largest crystal ever made.

D. B. Meredith, of Carlisle, Pa., has in his possession a piece of hardback which was issued to him among other rations in 1864, while in front of Petersburg. It is in a good state of preservation, and is greatly prized by him.

A gorilla having been advertised as among the attractions in a Boston museum, a naturalist visited the place, and writes to a local newspaper that the animal is only a baboon, and that, furthermore, there has never been a live gorilla in America, and very few in Europe.

There is said to be a man in Leadville, Col., who can tell by the tingling sensation in his fingers when he walks over a body of ore. He is a living mineral detector. His powers are said to have been thoroughly tested, and he has earned large sums by his peculiar gifts, but his fondness for faro keeps him poor.

Will Stick to Railroad Ties.

"And say, young man," he continued, "if you ever go traveling, like me, avoid steamships. I went as a stowaway one time, and I'll tell you what happened. After three days out at sea I was discovered. The captain said to me: 'Young man, you'll have to go to work.' He set me to scraping off paint for nine days. At the end of that time we reached port, and instead of being allowed to land I was placed in irons and kept there until we left, when I was liberated and set to work again all the way to New York, where they allowed me to go. I never went to sea again. Railroads are good enough for me."

Among the ornaments on the supper table at the Vanderbilt reception given recently in Newport was a large owl on a perch. This owl was composed of 750 pieces of sugar and almonds, the eyes alone containing 60 pieces. A chain of confectionery, made in imitation of silver, held the bird to

his perch. Another ornament was a large beehive to which sugar bees clung. It is said that \$10,000 will not pay the expenses of this ball.

Hood's Sarsaparilla

This successful medicine is a carefully-prepared extract of the best remedies of the vegetable kingdom known to medical science as Alteratives, Blood Purifiers, Diuretics, and Tonics, such as Sarsaparilla, Yellow Dock, Stillingia, Dandelion, Juniper Berries, Mandrake, Wild Cherry Bark and other selected roots, barks and herbs. A medicine, like anything else, can be fairly judged only by its results. We point with satisfaction to the glorious record Hood's Sarsaparilla has entered for itself upon the hearts of thousands of people who have personally or indirectly been relieved of terrible suffering which all other remedies failed to reach. Sold by all druggists, \$1; six for \$5. Made only by C. I. HOOD & CO., Apothecaries, Lowell, Mass.

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PROF. O. W. MILLER, : : : PRESIDENT.

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Topeka, Kansas.

The El Dorado Packing Company expects to commence slaughtering and packing hogs in about six weeks.

The Southwest Horse Fair Association will hold an annual exposition at Riverside Park, Wichita, Kas., October 11-14.

The crops on alluvial bottoms, subject to overflow, in many portions of middle and southern Georgia, have been almost totally destroyed.

A contract was let last week at Arkansas City for the erection of a five-story hotel in that place, to contain 130 rooms and to cost \$115,000.

The Fort Scott window glass works will commence making glass in a few days. It will be the only glass works west of the Mississippi river.

The wheat crop of Montgomery county is larger this year than in any former year, and the farmers there claim that they will have 2,000,000 bushels of surplus corn.

Mr. Willhouse, the great apple farmer, of Leavenworth county, says he will have about 30,000 bushels of apples this year, and that they are the best he ever raised.

Mr. Parkinson, manager of the Fort Scott Sugar works, has made a proposition to the people of Hutchinson to locate a \$100,000 sugar factory at that place. The stock was guaranteed in an hour and the probabilities are that the amount will be doubled. The building will be built this fall and the machinery be put in by spring.

The run of the Parkinson Sugar works, at Fort Scott, on the 20th inst., was 200 tons of cane, giving an average of 115 pounds of first sugar and molasses enough to ensure 20 pounds additional to the ton on boiling for "seconds." That will give a total product of 135 pounds of sugar and 12 gallons of syrup to the ton of cane.

Rumsellers in Wichita are feeling the power of the law. Several cases were tried and the defendants convicted last week. One man plead guilty to an indictment containing 208 different counts. He was sentenced to jail seventeen years and four months, and fined in the sum of \$20,800. The lowest fine under the law is \$100 for one offence and the shortest term of imprisonment is thirty days.

The Harper county fair held at Harper, Kas., last week, was not the success it should have been. The exhibits though good, as far as quality was concerned, were meagre almost to the extreme. And was certainly not a fair representation of this excellent county. It is hoped that another season will witness a decided change for the better, as exhibits unless good, are bad for the county making them.

MORE QUESTIONS ANSWERED.

The questions are introduced in the letter following:

EDITOR KANSAS FARMER:—I read your article of September 1, and now the letter of Mr. Tallant and your reply thereto, of September 15, with great care, and much interest. Your reply does not answer the plain statements of fact, contained in Mr. Tallant's letter. You will please pardon me for saying that you make the same mistake of all protectionists in arguing in favor of a tariff as against free trade. I don't so understand Mr. Tallant's letter. I do not understand Mr. Tallant or any one else to contend that the revenues of the government should be raised in any other than the constitutional method—that is by a duty laid on imports. But, myself and several of my neighbors, all Johnson county, Kansas, farmers are very anxious for you to answer and explain to our benighted minds the following questions:

1. Is it necessary in order to pay the expenses of our government that we levy a tariff tax of 47.7 per cent. on imports?
2. What will be the surplus at the present rate of revenues collected at the end of the present fiscal year, June 30, 1888?
3. Do the farmers, and other consumers of these imported goods, pay any part of this tariff tax?
4. Does this tariff tax increase the price, which the farmers have to pay, of any article manufactured in the United States? (Rather awkwardly put, but I think we can understand it in that shape.)
5. Does it increase the price of any article which the farmers have to sell, and if so, what, and how much?

Of course a tariff will give incidental protection, but the question is, why shall we levy a tax on the people of 47.7 per cent. when 20 per cent. would be sufficient to pay the expenses of the government?

E. B. GILL.
Johnson Co., Kansas.

Before answering the questions, permit us to express gratitude to the writer of the foregoing letter and through him to all other readers of the KANSAS FARMER who differ from us on the "tariff question," for the interest they take in the subject, and for propounding questions and calling attention to expressions and statements found in the editorial department of the paper which are not clear to them or which may not appear to them to be true in fact. Questions in general imply both fact and opinion. The KANSAS FARMER wants to be exact in all statements of fact, and whenever we make a mistake in that respect, it will be of service to us and to our readers to have our attention called to it; and whenever the person objecting or doubting will furnish the fact as it really is, the correction will be published early and the error properly acknowledged. As to opinions, our readers will please judge for themselves. Our columns are always open for frank, honest, respectful discussion of any matter of interest to farmers. If our answers to these questions are not correct, we would be pleased to have our correspondent point out the particular errors.

Our correspondent sets out by saying—"Your reply does not answer the plain statements of fact contained in Mr. Tallant's letter." If our friend will point out what particular statements he refers to, we will answer them from the record if there is any record of them to be found.

Next, he says we are mistaken in supposing that anybody is arguing in favor of absolute free trade. Our mistake, if such it is, comes from the fact that our correspondent (Tallant) did not himself state his views on this point. Our reply called attention to that. Had we believed that he is a "revenue tariff man," the reply would have taken a somewhat different range.

Our present correspondent, Mr. Gill, says: I don't understand Mr. Tallant or any one else to contend that the revenues of the government should be raised in any other than the constitutional method—that is, by a duty laid on imports." That assumes that there is but one constitutional method of raising revenues of the government. There are several other methods provided for in the constitution. The exact language is: "Congress shall have power—To lay

and collect taxes, duties, imposts, and excises, * * * but all duties, imposts, and excises shall be uniform throughout the United States." The usual method of raising revenues of the government in this country has been by the imposition of tariff duties; but other methods were at several times resorted to. The "whisky resurrection" in 1794 occurred because of excise taxes imposed on the distillation of liquors. During our late war, government revenues were raised by excise taxes on liquors and tobacco, income taxes, direct taxes on certain articles of personal property, stamp taxes, taxes on banks, etc. At present we raise considerable revenues from liquors and tobacco. Now to the question direct.

Question No. 1.—Is it necessary, in order to pay the expenses of our government, that we levy a tariff tax of 47.7 per cent. on imports?

Let us see. The net ordinary expenses of the government for the fiscal year ending June 30, 1886, (the latest official figures we have) amounted to \$191,902,992.53. This amount was made up of expenses on account of the war department, the navy, Indians, pensions, and miscellaneous matters. Then, there was a payment of \$205,216,709.36 on the principal of the public debt, and \$50,580,145.97 paid on interest, making the gross expenditures of the government for the year \$447,699,847.86. [See Statistical Abstract of the United States, 1886. Prepared by the Bureau of Statistics under the direction of the Secretary of the Treasury. The total net importations for that year (1886) was \$621,875,835. Forty-seven and seven-tenths per cent. of that is \$296,634,773.294. That is \$151,065,074.564 less than the total necessary expenses of the government. It must be remembered, however, that the actual amount of duties collected during the year was only \$189,410,448. About one-third of the articles imported came free of duty. These are the figures:

Value of dutiable goods.....\$415,334,858
Value of free goods.....206,540,977

The average rate of levy on the dutiable goods was 45.55 per cent. The importations for the year ending June 30, 1887, were considerably larger than those of the year 1886, and the average rate of duty on the dutiable goods was a trifle higher; but as we have not the expense figures for 1887 it is useless to give any for that year. It will be seen from these figures that 47.7 per cent., even if levied on all the goods imported, would not pay the government expenses.

Question 2.—What will be the surplus, at the present rate of revenues collected, at the end of the present fiscal year, June 30, 1888?

We do not know. It is one of the things which are past finding out. It will be large, however.

Question 3.—Do the farmers and other consumers of these imported goods, pay any part of this tariff tax?

Yes.

Question 4.—Does this tariff tax increase the price, which the farmers have to pay, of any article manufactured in the United States?

No, except as to a very few articles. The tariff on sugar is about all tax on the people who use it. We do not just now call to mind any other American-made article which is increased in price. Every article manufactured in the United States to a large extent, has been reduced in price. Every farmer of fifty years of age can remember when prices of all manufactures were much higher than they are now, excluding the war period. Calico and muslin once sold at 25 cents to 75 cents a yard; common nails at 12½ to 16 cents a pound, and a good bureau at \$50.

Question 5.—Does it increase the price of

any article which the farmers have to sell, and if so, what, and how much?

The answer to that may involve opinion to some extent. It is better to state facts which are pertinent, and from them make up our opinion. Our correspondent, probably, knows what our opinion is; but he wants facts, not opinions. Market reports as to many articles are accessible, and they, as well as the experience of all old people, agree that at and before the time—say 1816 to 1832—when it became evident that the people of the United States intended to maintain a tariff on imported goods, prices of all farm products were very low, compared with what they are now. The writer of this remembers distinctly as far back as 1840. At that time good farm horses in south central Pennsylvania sold at \$60 to \$85; cows at \$15 to \$20; calves at \$1.50 to \$2.50; stock hogs, good size, a year old, weighing—say 125 pounds, at \$2 to \$2.50; pigs old enough to wean, went at 25 cents to 31½ cents apiece; sheep anywhere from 75 cents to \$1; wheat went at 50 cents a bushel, and was often paid out in trade to hired men at the rate of one bushel for a day's work, when 40 cents in money would pay for the same services. Corn and other cereals were correspondingly low. Hay, potatoes, butter, cheese, eggs, poultry, etc., were all much lower then than they have been at any time in the last twenty-five years. Taking a long period of years, without reference to whether duties were higher or lower on particular articles any portion of the time, it may be stated as a fact that there has been a gradual and general increase of prices of farm products since our positive tariff policy began. Some years lower, some years higher, but in the whole period a substantial rise. How much the "tariff tax" had to do with this, is matter of opinion and can be argued from the facts.

"Of course a tariff tax will give incidental protection," our correspondent says; "but the question is, why shall we levy a tax on the people of 47.7 per cent. when 20 per cent. would be sufficient to pay the expenses of the government?"

Our friend is mistaken here. Twenty per cent. will not pay government expenses, as will be seen by a simple computation. Total value of net imports for 1886, as shown above, \$621,875,835. Twenty per cent. on that is \$124,375,167, only a little more than one-fourth of the aggregate government expenses for that year.

A suggestion of fact: Comparing a revenue period, 1847 to 1861, with a protection period, from 1873 to 1887—each fifteen years, we have these figures:

	1847-1861.	1873-1887.
Average value of annual importations.....	\$233,791,389.00	\$577,671,063.00
Average per capita.....	9.29	11.51
Average per capita, free goods.....	1.39	3.45
Average per capita, dutiable goods.....	7.90	8.06

Topeka Weather Report.

Sergeant T. B. Jennings, of the Signal Service, furnishes the KANSAS FARMER weekly with detailed weather reports. We make an abstract for publication and file the copy for reference, should we ever need details.

Abstract for the week ending Saturday, September 24, 1887:

Temperature.—Highest temperature, at 2 p. m. was 89° on each of two days—Tuesday and Wednesday; lowest temperature at same hour, 60° on Thursday.

Rainfall.—Total rainfall for the week .58 of an inch.

The Nebraska Board of Transportation issued a schedule of rates to be observed by a railroad company in transportation of freight. The company will test the power of the Board by an appeal to the Supreme court.

Grand Army men who lived farthest away were the first to arrive at the national encampment grounds in St. Louis.

WHAT OF THE PEOPLE'S SIDE?

It is understood all around that the political maneuvering this fall is to gain position for the campaign next year. Parties are made up of people, though their movements and policy are not always just what a majority of the people would agree upon were they individually consulted; and it rarely happens, until after a long beleaguering, that any party takes hold positively and affirmatively of economic questions with determination to solve them promptly in the common interest. It has always been the rule that those interests which are represented personally and persistently before legislative bodies are first attended to. The people, the vast aggregate of men and women whose interests lie in fair dealing among citizens, they who have no special interest at stake, who need and ask only that justice be done generally,—they are always heard last. If bankers, or traders, or manufacturers, or railroad managers, or speculators, or real estate dealers, or pension agents, want to promote or defeat any particular class of legislation, they go in person or send agents authorized to represent them, and law-makers learn from the mouths and pens of the persons specially instructed just what their principals want. The great body of the people do not enjoy that advantage. They have no special interests to look after, nothing that is not of general and common interest, and then, they are not organized like persons following particular lines of business in large numbers and in thickly populated communities, and they have no salaried advocates.

Look at the tendency of things the last dozen years or so. Look at the drift now. Little things have been absorbed by big things. In manufactures, in trade, in railroading, in banking, small affairs have been swallowed up in large ones. And now we are having combinations among what seemed to be great things only a few months ago. We are getting beyond the absorption of small matters and have entered upon the era of great powers. We have "Trusts" now—cattle trusts, banking trusts, commercial trusts, railroad trusts etc. These things mean the still further concentration of power that comes from concentrated wealth and political influence. If a railroad company owns lines reaching from cities on one ocean to cities on the other ocean, touching at Chicago, St. Louis and New Orleans between, it has more influence on commercial and political affairs than could have been exerted by the dozen or more short lines of which the system is composed. We are not complaining of this, for it is not unnatural, and if managed in the public interest it would be greatly to the common benefit. But what of the people's side? Is that represented in those great deals? Who guards the common interest while the few are taking care of theirs? There has been a great deal of legislation on various subjects. Congress has bills before it by the thousand, every state legislature has bills before it by the hundred, and this has been going on many years; still the Standard Oil company exists, manufacturers continue to prevent legitimate fruits of competition, and railroad companies associate in order to maintain rates. We are barely on the threshold of railroad legislation. We have got just far enough along to declare against charging more for less than for greater service, and we are so tender about it that we authorize a commission to suspend the law when, on examination they think it ought to be done. Millions of our people are interested in

plain, common sense, honest dealing among themselves and with merchants, traders, landlords, carriers and others, yet even in this year, 1887, it is possible for a few men to meet in a hotel parlor and in a few minutes conversation agree upon a plan which robs the farmer, the mechanic, the clerk, the merchant, everybody, by extra charges on commodities or on transportation or on the use of money or other property. What of the people's side, we ask? That is not represented.

The people have a remedy in their use of the ballot. Candidates for office are always in full crop. Party managers put out platforms declaring for or against certain principles. All that is well enough. But the great party of the people has not been heard from, and it cannot be heard from except through the counting of their ballots. Farmers must look after these things. They must meet in local assemblies often, talk over what they need in common and then communicate freely with persons aspiring to official position. The way to inform persons of what we want is to talk to them face to face about it; tell it to them once, twice, thrice, and continue to tell it until they understand well enough to remember it.

Kansas Silk Dress Goods.

A few days ago a package was received at one of the express offices of Topeka, sent by the well known New York silk manufacturing company of Belding Bros. & Co., at No. 455 and 457 Broadway. On the 29th day of July last, that house wrote to the Kansas silk exchange—"If you will send us a sufficient quantity of raw silk to weave a dress pattern, we shall take great pleasure (without expense to you) in making a dress pattern which we will send to you, and which you can present to the wife of the governor of your state."

The raw silk was sent as requested, and on the 12th day of this month, September, the following was received: "We have this day sent you by express, a piece of black silk woven from Kansas silk which you are to present to the wife of the governor of your state. We feel very well satisfied with the looks of the silk and think the production is a credit to the State of Kansas. We trust the governor's lady will also be pleased with it."

The package received, as above stated, is the silk referred to. Now we know that Kansas can raise silk fit for weaving into dress goods.

Some Errors Corrected.

The proof reader made several mistakes in the proof of our answer to the inquirer as to tariff duties. Look under the head of "Inquiries Answered" on page 7, and in the eighth line from the top, the word "as" in the eighth line ought to be *us*.

Again, in the twenty-second line, after the comma following the word "war," the words *the war* ought to be inserted before the word "of."

In the eighth line from the bottom, the word "send" ought to be *sell*.

The last word in the answer—"day," ought to be *pay*.

We regret these blunders exceedingly, but it is too late now to correct them except as above.

Three children of a farmer named Gant, while playing on the Island of Orleans, where the artillery competition was held recently, found a shell and lit the fuse. The bomb exploded and killed them all instantly.

The situation in Ireland, on account of eviction of tenants is growing worse every day. Fights between officers and people are becoming common.

Inquiries Answered.

TIME TO SOW WHEAT.—Any time after September 5 to October 31. We have known wheat sown in December to produce a fair crop. Farmers in Kansas have a long working season. The best time to sow wheat is between the 5th and 25th days of September, averaging about the 10th day.

SORGHUM, MILO MAZE KAFFIR CORN.—I would like to learn through the KANSAS FARMER if sorghum is considered a good fodder for stock (horses or cattle), especially milch cows; also the same in regard to milo maize and kaffir corn?

—There is no better fodder for any kind of stock than the blades of matured sorghum planted for syrup. Thousands of farmers in Kansas sow the seed thickly and cut the plants when well headed out, and they are about unanimous in pronouncing that kind of fodder good. Some wheat bran ought to be fed with it to get the best results. With bran it is excellent for milch cows. Milo maize and kaffir corn blades make good fodder for horses, cattle and sheep. They are two varieties of corn.

TO GET RID OF PRAIRIE DOGS.—This is the way a Montana man does: "I had a pump made as follows: The body of the pump is a joint of six-inch stovepipe; across the bottom of this pipe is a perforated iron plate, which holds the straw that is placed in the chamber of the pump from getting down into the opening at the end of the pipe. There is a piston, the bottom plate of which is perforated, as in the partition. The upper plate has a valve in it, which opens when the piston is pulled up by the handle, and closes as it is forced down. There is a handle placed on the side of the pump, to hold it by when in use. The pipe is filled about two-thirds full of straw, which is set on fire from the top. The piston is inserted and worked with a quick, short stroke, until the smoke begins to puff out of the nozzle. The nozzle is then put down into one of the holes and dirt hoed up around it to keep the smoke from getting out. After giving the hole a good charge of smoke, the dirt is hoed over the opening to keep it from escaping. Ten days ago we filled in this way thirty holes in some of which we saw as many as half a dozen dogs go. From the fact that not one of these holes has yet been opened, it is evident that all of those dogs were smothered.

DISEASED CATTLE.—I write to you for information. I have about fifty head of cattle—steers, cows, and calves, and one thoroughbred bull, Jersey. I noticed early last winter that there would appear a small knot or bunch on the throat sometime on the jaw, sometimes two or three knots or bunches would appear; some would break and run very thick, yellow matter, and I have one cow now that is swollen from the eyes down; nose as large as three noses of common cows; my bull has several knots, some broke and some hard. My neighbor that joins me has the same disease in his cattle. There are twelve of his that have it. He has opened several of his with a knife; thick matter runs out and then comes up again. Some get well without any thing done to them. They drink and eat heartily, and are in good flesh; some of them have been affected eight months. Please inform me what disease?

—The description is too limited to base a judgment upon. The only symptoms given—lumps or bunches and the suppurating, might do for poison, for cold, for bruises. Do the animals cough? How do they look, act, move, etc.? Do they show weakness in any part? How are the excrements from bowels and kidneys? What kind of feed have they been eating? Are there any poisonous weeds among their hay or grass? Have they been bitten by poisonous reptiles or insects? Study the case well and report all the symptoms.

SUGAR MAKING.—I see by my last paper an account of the making of sugar at Fort Scott which is very encouraging. As this is a great corn-growing country I think it would do well for cane. I would like to know how to proceed to get a factory in this part of the country. What do they pay for cane at the factory? In your next please give full particulars.

The first thing necessary is to let it be known that you want a factory; the next thing is to correspond with persons who are interested in the business, or who could be induced to interest themselves in it. The best way to get the works built if it can be done, is to organize a company of farmers and engage the services of a competent manager and chemist. This may or may not be practicable in your case. The most practical move, immediately, would be for a meeting of the farmers in your neighborhood or

county to request Hon. W. L. Parkinson, of Fort Scott, founder and manager of the sugar works at that place, to visit you at some convenient time and place to talk to you on this subject and tell you all about it, you bearing his expenses. He will either take hold and help you or he will give you necessary information as to best methods. The Fort Scott works paid \$2 a ton for cane. We think if our correspondent will push the matter early he can succeed, and success will be of great value to him and his farmer neighbors.

Marketing Wool.

Kansas Farmer:

We have read the communications of Thomas Johnson, White City, Kas., and Geo. R. Mann, Penfield, Kas., and trust you will give us space to answer. Our books do not show that we have received any wool from Thomas Johnson, and we herewith pass you a letter from Wm. Chapman, agent of the R. R. Co., at White City, saying Thomas Johnson never shipped any wool to us. We examined every sack of Geo. R. Mann's wool thoroughly and carefully. It was a lot of poor mixed grades, dark, greasy, badly handled and packed, in unmerchantable condition, and so heavy with dirt that it could not be graded and make the grades bring what the whole lot round brought. The loss in weight of dirt in grading considered, and the price obtained, 16c., brought him more money than light bright wool at 26c. from the same number of sheep would have brought, and 2c. per pound more than it is worth in any American market today. Having made wool a lifetime study, and being the oldest and heaviest receivers of wool on the St. Louis market, and handling millions of pounds every year, from every state and Territory, it is reasonable to suppose we know what wools are; and being in daily correspondence with every wool market of the world, and with the buyers, both speculators and manufacturers, it is likely we know what wools are worth. From the opening of the season we advised quick shipment and sale, knowing that prices would continue to decline, and so they have, and will go still lower. Mr. Mann's wool brought the full market price when it was sold.

HAGEY & WILHELM.

St. Louis, Mo.

Here is the correspondence referred to:

St. Louis, Mo., Sept. 16, 1887.

Railroad Agent, White City, Kas.:

DEAR SIR: Will you be kind enough to inform us if your books show a shipment of wool from Thos. Johnson, White City Kas., to us during the season of 1887, this year. Please let us know positively, as he claims to have shipped to us, and we have no record of ever receiving it. Hoping to hear from you promptly, we are truly yours,

HAGEY & WILHELM.

REPLY.

DEAR SIR: I can find nothing of a shipment from this party to you, from this station. Have looked from January, 1887, to present date. I also enquired from agent of C. K. I. & P. Ry., but he has no record either from his station. Yours, etc.,

WILLIAM CHAPMAN,

Agt. Missouri Pacific Ry.

White City, Kas., 9-19.

Book Notices.

AMERICAN MAGAZINE.—An ascent of Popocatepetl gives opportunity for all the usual experiences in high mountain climbing, and will be described in an illustrated article by Arthur Howard Noll in the forthcoming number of *The American Magazine*.

POPULAR SCIENCE MONTHLY.—The many persons who, while familiar with the term evolution, are uncertain as to the scope of the doctrine, will be interested in the answer to the question, "What is Evolution?" which Professor Joseph Le Conte is to give in the October *Popular Science Monthly*.

SCIENTIFIC HORSESHOEING.—Messrs. Robert Clark & Co., Cincinnati, Ohio, publishers, send us a copy of a work on "Scientific Horseshoeing" by William Russell. There are upward of a hundred illustrations showing the anatomy of the horse and of the horse's foot. Prof Russell received medals for his shoes and methods of shoeing from the commissioners of the Centennial Exhibition at Philadelphia in 1876. This is a practical book and ought to be widely circulated among horse-shoers and persons who own and use horses. It would be very useful in every farmer's library. It shows the philosophy of horseshoeing.

Horticulture.

Old Ground and New Ground.

There is a difference between old ground and new ground which is worth understanding. For all horticultural purposes the old ground is better than new, provided, of course, it is in equally good condition as to fertility. There is something about new ground which is commonly called wildness. The word is used probably because it does not express anything, while it represents a condition of soil that all experienced farmers in prairie land know about but cannot describe. If the observer will examine the matter closely he will soon learn what is meant by wildness as applied to soil. In beginning the investigation he would compare soil thrown up by plows in the two classes of ground. One of the delights of the plowman is to look at the turning soil as it slips off the mouldboard and melts down softly and loosely as he passes on. The new ground goes off the mouldboard more like a great shaving of earth, solid, not falling apart except in cracks, leaving large pieces that may be picked up and held by one end. Large pieces are thus held together by grass and plant roots. When pulverized, by rolling and harrowing, roots will be brought to the surface in great quantities. But those roots are not rotted, they are not fit for any use as plant food. The soil had lain in one position for centuries, had never before been turned up to the sunshine, and it is—wild.

That kind of soil can be made to produce well by extra efforts, and in wet seasons a fair crop of corn may be grown on fresh sod. It needs no working; indeed, it cannot be worked, and for the first year the weeds are not enough to be in the way. In a dry season, however, nothing grows well on fresh sod turned over shallow. The ground must be turned up deep and then cut up and broken until it is fine. That kind of ground will produce a crop with but little rain. Old ground right beside it, if in good condition, will do much better and with much less labor.

It is important to beginners in prairie land to understand this fact; it may save them a good deal of trouble and disappointment. This is particularly true in the line of horticulture. It is discouraging to see one's labor lost. Thousands of trees are lost in Kansas every year on this account—people do not understand the difference between the qualities and character of new ground as compared with old ground. A farmer just beginning on raw land need not loose a tree or plant if he knows how to manage in such a case. And if he does know how to manage, he will not set out one tree or shrub more than he has prepared for. It is much better to have half a dozen thrifty trees at the end of a summer's growth than a hundred dead ones. There need be no difficulty about having good ground the second year if it is planned and laid out the first year, for all the roots may be rotted in the course of a year, if properly handled.

We would not advise the setting out of a large number of fruit trees before the third spring after breaking the sod, and the ground ought to be worked deep and cropped heavily during these years of waiting for the orchard. Every working during that time is one useful step in preparing the soil for the most important field on the farm—the orchard. A good orchard can be grown right on the raw sod turned under eight or ten inches and the under soil thoroughly pulverized and well compacted

by rolling; but it requires a great deal of work which may just as well be avoided as to part of the ground.

To such persons as have made no preparation yet for orchard ground, and have nothing but wild land to use, it will be wise to break the sod this fall. Select the orchard ground, and break one corner of it, enough for a dozen trees or so, just as you have time and team. Plow shallow when cutting the sod; throw that over flat and straight; follow in the same furrow with a plow that will run anywhere from six to eight inches below the bottom of the first furrow, thus covering the sod completely. Do this to as much of the land as you can, and let it lie a few weeks in the sun and air, when it ought to be well cut up by a sharp-toothed harrow, or a disc harrow, anything that will cut it up well, going in the direction of the furrow. Let lie all winter and until the ground is in good condition for working in the spring. Then give it a thorough breaking up and fining, down to the sod, being careful not to bring any of that up. Let it lie for at least one good rain, then plant well and you will have good trees if you take care of them.

Grape Vines on Walls, Trees, Etc.

The KANSAS FARMER has long preached a grape philosophy. Here is something that comes in our line of thought exactly. It is copied from *Seed-Time and Harvest*:

Many years ago we were familiar with a fine country residence, whose owner paid great attention to fruit. He had planted about fifty Catawba grape vines on a moderately rich, deep, warm sandy loam. Not fifty feet away on exactly the same soil he had planted two of the same lot of vines at the foot of the walls of a large brick mansion, one on the east side, the other on the south, close up to the wall. The fifty vines planted in vineyard form had every care in the line of cultivation, pruning and covering in winter, but for many years they only gave one or two perfect crops of fruit, and these only while the vines were young. One season the vines would set a full crop of fruit and the foliage would mildew, and the fruit not ripen, then perhaps the next season the fruit would rot, and so on year after year until at last they were rooted out as worthless. The other two vines were allowed to ramble over the house wall pretty much as they willed, were not pruned back at all. They grew into immense vines, and matured immense crops of fruit nearly every year with very little disease of either foliage or fruit. The one on the east wall was in every way the healthiest and most productive. These two vines had no care or manure whatever. They grew in the natural soil, as nature and nature's God formed it for the growth of plants. They were not stimulated by unnatural manures, and still farther stimulated by pruning while dormant into an enormous unnatural succulent growth.

The others, the fifty were grown on an unnatural support, exposed to the full glare of the torrid summer sun. They failed like the 10,000 others. Yes, as nearly every vineyard as yet planted in this country has done when planted on southern exposure and treated in the same unnatural manner.

The vines on the house wall had; of course, an unnatural support to clamber over, but the other conditions were more natural to the habit of the vine.

The one great secret of their continued health seems to be that their roots were where they could follow the cellar walls down to a great depth, and in this way probably escaped the grape root louse. At least in very many cases where we have seen the grape vines

growing near cellar walls, they have been remarkably healthy and fruitful.

On the house where we write this there is a vine of Clinton, and one of a very large black Fox-grape, twenty-three years old. They have spread and climbed as they pleased. The root of the Clinton run under an addition to the house that has neither wall under it or cellar. The Fox-grape is where its roots can run down the cellar wall. It has not missed a perfect crop of fruit for twenty years, while vines planted near by, trained in the usual way, have not given six good crops during that time. The Clinton has every year given a perfect crop with no rot on either. A near neighbor has several hundred Concord vines twenty-four years old. For the first ten or twelve years they were closely pruned and well cultivated, and they gave very fine and large crops; the fruit then began to rot, and for three years the crop was nearly a complete failure. The owner gave up and quit pruning and cultivating, the trellis was sustained and they grew as they wished. Under this treatment of growing exactly as suited them best they recovered their "equilibrium" and have given five nice crops of healthy fruit and vine, and are nicely maturing their sixth. These facts give some hints that should be of value.

Our native grapes are a fruit of only a few generations from the wild vine of the woods. In fact, three fine varieties of them are said to have been found growing as wildlings, viz., the Catawba, Norton's Virginia, and the Scuppernong. The three belonging to three distinct species. When growing wild, their vines clamber over trees, their roots spread widely under the shade of the trees. The vine and its roots were in competition with the roots and shade of the other plants, and they sheltered and protected each other naturally, thus they grew, bore fruit and were healthy. Now if we take this wild Catawba grape vine as they did around Cincinnati, and plant it a few feet apart on a south hillside, thousands in a mass, kept cut back so as to occupy but little space, with only bare continually disturbed soil for its roots to feed in, can we wonder that these Catawba vineyards failed, and failed most miserably? We may be answered by referring to the vine as cultivated in Europe, but this would be no answer at all, for the reason that the vines of Europe are of species that has been cultivated for thousands of years and has become adapted to such culture by the "survival of the fittest." Not so with our native species, they are wildlings; a thousand years with many generations from seed might fit them for such a culture. Therefore we will close by saying as we did of the strawberry—only more strongly—let us at least try exactly the reverse of our own culture a little. Let us plant vines for experiment on steep hillside facing the north, the east, the west, all but the south; we have tried that thoroughly and generally with failure. Let us try them as nature grows them, clambering over trees, with all exposures on walls, especially with any exposure except south and southwest. Let us build substantial supports and let the vines have their own sweet will—go as they please—let some of them climb high, some low. Plant a few vines to cling to your house, plant all around the house, if of good hardy kinds; they will find room on it to give you an abundance of fruit.

In cultivating nut trees we are not neglecting the aesthetics of our surroundings or that of the highways, for the hickories, walnuts and chestnuts are as noble and beautiful trees as the maples, lindens and other common and familiar roadside trees.

Storing Cabbage.

Cabbage does not keep well in the cellar, and consequently where it is desired to keep for any considerable time for winter and spring use, it should be pitted away. To do this there are three general plans, either of which is good and each has its favorites, who insist that the peculiar plan they follow is the best and surest. They should not be stored and pitted away until they have ceased growing, or until cold weather in the fall. They can stay out and withstand a slight freezing without injury. A place should be selected that is easily drained, as the heads should be kept dry.

The first plan is to dig a trench about three feet wide and as long as necessary to hold them. Pull up the plants and place them head downward in the trench, packing as closely as possible, fill in between the stems with soil covering at least two feet deep, slanting the sides, and beat down with the back of the shovel until as firm as possible, so that it will turn water readily. If the work is done well, so that the water will not get through to the cabbages, and they are covered deep enough to keep from freezing, there is little danger of loss. I have always found it a good plan to dig a small trench in one side so as to carry off the surface water.

The other plan is nearly the same, except instead of putting the heads down they are placed in the same position as they grow. The advantage claimed for this plan is that there is less danger of rotting, as the water can only be about the roots and stems, and the heads that have not fully headed up will do so before spring and be as good as other heads that were full matured in the fall. The covering is applied in the same way as in the first mentioned plan.

The last plan is to dig the trench and the cabbage heads with the stems just as they are pulled up in the patch, instead of covering with dirt, a covering of boards is first placed over them. A forked stake at each end, to support a long pole, two or three feet clapboards are used, setting them in the edge of the ditch, making a slanting roof. Over this the dirt is thrown thick enough to protect the plant from frost. This is the best plan, though it requires more labor than either of the others, but it keeps the plants in a much better condition, cleaner and nicer. Whatever heads there are that have not fully headed up will do so during the fall and winter, and make good heads for winter use. Another advantage this plan possesses is that you can get at the cabbage much easier during the winter to receive what may be needed for market or family use. If pains be taken to do the work carefully cabbage can be kept as nice and fresh as in the patch by this plan.—*Farmer and Dairyman*.

Horticultural Notes.

Let every farmer in Kansas arrange to set a young peach orchard on old ground not before bearing any kind of trees.

The horticultural products of the Mississippi Valley have an estimated value of over one hundred millions of dollars annually.

Those who are troubled with the squash vine borer should dip cobs in coal tar and place them among the vines. This is a pretty certain remedy and preventive.

The cabbage requires a good soil or plenty of well-rotted manure and phosphate, and the more frequently it is hoed the better. Old ground, or that which has been several times plowed, is better than freshly-turned sod.

Lima beans should have a sandy spot with plenty of fine strong manure in the hills, and these three or four feet apart. A stake is needed at each hill some eight feet high, or else instead a wire for each row may be stretched from the top of stakes sixteen or twenty feet apart, with strings running up from the hills.

¹/₂ bu. \$1.25, 1 bu. \$2.25, 5 bu. at \$2. NEW MONARCH. Our crop yielded 42 bu. per acre. Very scarce. Red grain, clear
 heads, \$2.00 per bush. POOLE has yielded 61 bu. per acre. Red grain, bearded, ¹/₄ bu. 75c., ¹/₂ bu. 1.25, 1 bu. 2.00, 5 bu. at \$2.
 DEITZ LONGBERY. The best longberry wheat in the country. Please everybody. Red grain, bearded, ¹/₄ bu. 60c.,
¹/₂ bu. \$1.25, 1 bu. \$2.25, 5 bu. at \$2. MARTIN AMBER has made the largest yields of any wheat ever introduced. Light
 amber grain, smooth head, 3 pecks seed enough for 1 acre; ¹/₄ bu. 60c., ¹/₂ bu. \$1.25, 1 bu. \$1.50, 2 bu. \$2.00, 5 bu. at \$1.40.
 TATION charges must be paid by purchaser. RATES from Indianapolis are cheaper than from any other place.
 SAMPLES sent free. WILSON MONARCH, 1 lb. 75c., 3 lbs. \$1.50, 5 lbs. \$2.00. WILSON BEND
 BY MAIL. Post paid, 1 lb. 40c., 3 lbs. one or more kinds, 1 lb. 50c. Catalogue free.
 J. A. EVERITT & CO., Seedmen, 141 W. Wash. St., Indianapolis, Ind.

Commission. Liberal advances on consignments.
Reference:—Hide & Leather National Bank, Chicago.
194 Kinzie street, CHICAGO, ILL.



FARMERS AS SUGAR-MAKERS.

The KANSAS FARMER has been preaching the doctrine of home-made sugar some years, and our faith grows stronger as fresh events come to us. We have argued that the enormous amounts of money we pay for sugar ought to be paid out among our own people, farmers first, and mechanics second. The raw material for sugar is all raised on farms. In Kansas we have at least one factory making sugar profitably from sorghum cane; in California one factory is making sugar profitably from beets. Enough has been done to attract the attention of statesmen. Senator Plumb has been a warm and useful friend of home-made sugar in Kansas half a dozen years. Senator Sherman, of Ohio, has taken up the subject generally, and speaks for beets in particular. He delivered an address recently before the Wayne county, N. Y., Agricultural society, and he referred to this subject at length. Nearly all of his address was devoted to the sugar industry. We copy that portion of his remarks as printed, prefacing it with the observation that at the time his address was delivered he had not heard of the recent achievements at Fort Scott. The Senator said:

You will notice that the people of the United States have paid for sugar, mainly imported from Cuba, \$75,000,000, besides paying into the treasury over \$50,000,000 in the form of duty, and at least \$25,000,000 more for transportation, refining, etc., making \$150,000,000 for a necessary article of food which can readily be produced by our farmers in every State of the Union. Sugar is as much an agricultural product as flour. It is made in the fields. If sugar was purely a tropical product, not indigenous in our climate, it ought to be classed with tea and coffee and only be subject to duty when the necessities of the government demand the revenue. For many years we so regarded it. When I was a lad, Orleans sugar was a great luxury, and maple sugar was the standard in common use. Now this is changed. Maple sugar is the luxury and cane sugar is one of the chief articles of our foreign commerce. And it has been shown within the present century that sugar is not necessarily a tropical production, but is found in a great multitude of agricultural products, grown readily in all parts of the United States, and especially in beets and sorghum. The only wonder is that a practical people like ours have not availed themselves of this discovery, and, with all their natural advantages of cheap land, soil and climate, have kept pace with Germany, France, Holland, Austria and Russia, in the production of beet sugar. Now, when most of the products of the farm are abnormally low, is a good time for farmers to turn their attention to supplying the people of the United States with a purely agricultural production of food in universal use, now imported and costing to the domestic consumer as much as is received for all the breadstuffs exported from the United States.

The statistics on this subject may be familiar to you, but, as I have in my hand a recent and reliable statement in respect to the beet sugar industry, you may be interested in some figures showing its enormous growth. The chemical existence of sugar in the beet and in many farming products has been known for centuries, but it was the embargo by Great Britain upon European commerce during the Napoleonic wars that compelled European powers to seek for the indispensable article of sugar in other vegetables than the sugar cane.

This led to numerous experiments, supported at first by bounties and

premiums, in the cultivation, improvement and development of the sugar beet, until now the latest returns make the actual production of beet sugar in Europe for 1887, 2,580,000 tons of 2240 pounds each. The production of cane sugar in the commercial world is estimated at 2,445,000 tons, so that more sugar is made from beets than cane. The tables I have before me show the production of each European country, but while Germany leads in the sugar extracted, as well as in the percentage of yield per ton, yet all the continental countries of Europe now produce enough sugar for home consumption and some of them have a surplus for exportation. Lands in Germany are much more valuable than lands in the United States, and we have by far a greater surface of arable land than all Europe, especially adapted to the growth of beets. Every agricultural fair in the Northern or Middle States exhibit beets of an enormous size, and those beets, if of the proper kind, will yield more sugar to the ton than sugar cane, while the residuum can be fed to hogs and cattle. It is known that a root crop is often a most valuable rotation for a grain crop. Even for food for stock alone the crop is a good one, but when it is shown, as these tables do, that an acre will produce ten tons of beets which will yield 11.33 per cent. of sugar, or about 2,400 pounds of sugar to the acre, it certainly presents a tempting chance for the American farmer to make the sugar as well as the bread and meat of our sixty millions of consumers. If there is any truth in the official statement made to us, it is much easier to produce 2,400 pounds of refined sugar from one acre of ground planted with sugar beets, than 1,000 pounds of flour from wheat grown on the same acre.

It may be said, if these things are true, why have not intelligent farmers entered into the production of beets for sugar-making? I answer they have. It is in successful operation by Mr. E. H. Dyer in Alvarado, California, who is now producing beet sugar in competition with sugar admitted from the Sandwich Islands, on a fanciful freak of diplomacy, duty free. Here is what he says to a citizen of New York:

ALVARADO, CAL., February 12, 1887.
Mr. James M. Hart, Oswego, N. Y.

DEAR SIR: I send you a sample of sugar by mail as requested. This is hardly a fair representation of our product. Our sugar was all sold some weeks ago, and this is the only sample I could get and is not nearly as good as our average.

We made this last campaign a little over 2,000,000 pounds of sugar, which sold at an average of 5½ cents per pound only. It cost us to make it a fraction less.

We will not put in a crop of beets this season, as we have concluded to enlarge our present works, or build entirely new. By enlarging to 150 tons daily capacity of beets we estimate that we can make sugar for about 4 cents a pound.

I notice also in the last report of the Department of Agriculture, the analyses of many samples of sugar beets, the best of which was from Oswego, New York, showing a percentage of sucrose from 5 to 18.84 per cent. The chemist complains that the beets are too large and the best methods were not adopted nor the best results obtained, but it will come in time.

The real reason why the beet sugar industry has not been established is that, to secure profitable results, a sugar factory must be erected, costing not less than \$200,000, and a permanent annual supply of 30,000 tons of sugar beets must be secured. Without co-operation of farmers and capitalists, or the use of a great corporation able to cultivate and crush enough beets, the enterprise would fail. The beets must be raised near the factory, and the factory must ensure a certain market for the beets, but all this will be done.

If we may reason of the future by the

past, the sugar industry is as sure to become a home industry, sufficient to supply our wants, as the infant cotton industry became after the invention of Whitney's cotton gin. As experience has shown that the region of our country north of the 40th parallel of latitude is the best for the beet sugar, I confidently expect that with your usual skill and energy you will put the ball in motion and add one more to the great home industries of our country.

In the meantime our farmers of the corn belt do not mean to give up the experiments made with only partial success with sorghum sugar. The new method proposed to separate the sugar from the stock by a process of diffusion has been tried by the agricultural department as well as by private producers. The mechanical difficulties in the way are serious and are fully stated by Mr. Wiley, but they will be overcome. The only question is whether beets or sorghum or sugar-cane will provide us with sugar, and at present I believe that the homely root will win the race.

I have selected sugar only as a specimen of new productions open to your enterprise, for there are many others. The farmer's productions must change as his methods of farming have changed. And how marvelous has been the change. I have lived long enough to witness the hard, exacting toil of the pioneer, building his log cabin, clearing away a small place in the forest for a little corn or wheat, grubbing and twisting and plowing around the stumps, living by barter with the country merchant and fortunate if he could gather enough money to pay his taxes. He followed the methods of farming then in vogue, watching the signs of the moon, reaped or cradled his wheat, threshed it by the tread of horses or by swinging the flail, and hauled it sixty miles to Lake Erie for a market, receiving 50 cents a bushel, half in store pay and the balance in doubtful bank notes.

I have seen the log cabin give way to a luxurious homestead, with a piano and all modern conveniences, and the farm divided into broad acres and clean fields without a stump, and the forest dwindle to a carefully husbanded wood patch. I have seen that same farmer or his son plowing with a sulky plow, the field smoothed with the harrow and the cultivator, the grain growing in drills, and cut in broad swaths with a reaper and binder; then the great threshing separates the wheat from the chaff and piles the straw away and the grain finds a good market at every railroad station, and the farmer gets his pay in national money as good as gold.

We do not realize the vast progress made in the last forty years without recalling the past. And more marvelous changes have been made in the world around us. Railroads, telegraphs, telephones, photographs, electricity, mechanism, petroleum, natural gas, inventions innumerable have abolished labor, distance, manual toil, poverty, and have made the elements of nature the instruments of our power.

And so in mental culture, in the knowledge of chemistry, in granges and fairs, in books, magazines and pamphlets devoted to agriculture, the farmer of to-day has the means of information which lifts his occupation to the dignity of a science. The good order of society now rests upon the intelligence and conservation of the farmers of the United States, for all classes must look to them for safety against the dogmas and doctrines that threaten the social fabric and sacred rights of persons and property, and I believe the trust will not be in vain.

A Rare Opportunity.

Now is the time for the breeder and ordinary farmer to prepare to supply the great demand at high prices that will surely be made next year on all swine breeders. The time for one to commence producing a staple article like pork, in any quantity, is when from any cause others are quitting, as is now the case throughout the great corn belt.

Heretofore it has been my policy to never allow the best to be selected from my herd at any price, but now for the first time during an experience of eleven years as a breeder of Large English Berkshire swine, I offer a majority of the very best of either sex, both matured and younger, composing the famous Manhattan Herd. The females represent ten families, and are headed by six larger boars than can be found in any other herd in the country, and that could be made to average 800 pounds each.

No expense or care has been spared in making this herd second to none in America.

We retired from the show ring some few years since, but not until after five years' exhibiting demonstrated the ability of the Manhattan Herd to win a majority of the premiums competed for at the leading fairs in the West.

My Berkshires are in the pink of thrifty breeding condition, and I have never owned as many high-class individuals as at present. A better opportunity to found a new herd of the highest excellence, or to improve old herds by selections from mine, has rarely if ever been offered.

To those that are unable to make personal selections I would say that good health, usefulness and satisfaction regarding any sale made is guaranteed.

Prices will be made very low and to suit the animals taken. Special prices on large orders.

Refer to my many customers all over the United States, whose purchases have often been winners at State and District fairs.

Lose no time in ordering if you wish the best.

A. W. ROLLINS,
Manhattan, Kas.

Upward of a hundred divorce cases were disposed of in one day in the Chicago divorce courts.

How Women Would Vote.

Were women allowed to vote, every one in the land who has used Dr. Pierce's "Favorite Prescription" would vote it to be an unfailing remedy for the diseases peculiar to her sex. By druggists.

Commissioner Miller, of the internal revenue bureau, intends to make an alcohol test of various kinds of beer sold throughout this country. These tests will be made public in the interest of the people, and, owing to the method to be followed in collecting samples, brewers will not be able to render the tests nugatory by preparation.

To Consumptives,

or those with weak lungs, spitting of blood, bronchitis, or kindred affections of throat or lungs, send 10 cents in stamps for Dr. R.V. Pierce's treatise on these maladies. Address the doctor, Buffalo, N. Y.

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144 Pages, with Steel Engraving,
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7 Coughs, Cold, Bronchitis...		25
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Sold by Druggists, or sent postpaid on receipt of price.—HUMPHREYS' MEDICINE CO., 100 Fulton St., N. Y.

The Tortilita Mines!

The Leading Mining Properties of the Country.

Their Marvelous Richness in Gold and Silver.

A Safe and Profitable Investment for All.

FROM THE NEW YORK "STAR," AUGUST 27, 1887.

The mines of the Tortilita Gold and Silver Mining Company of No. 57 Broadway, New York, have become the most favorably known property of this class in America. Their great value have been demonstrated by new and continuous discoveries of vast bodies of rich ore as the work goes on, and investors in the shares of the company are from all sections and all classes in the country.

The Tortilitas are developed, proven and working mines. The shares are an absolute security, as they are based on property worth many times what they call for. Shares are for sale in any sized lots from one share to ten thousand. There is no better or safer investment.

Receipts for \$150,000 in bullion taken out of the mines during their development can be seen at the company's office.

The demand for the shares is increasing daily. They are the favorite investment everywhere with all. The Tortilita shares are not affected by Wall street panics. They are an investment security pure and simple.

The Tortilitas have lately been examined and reported upon favorably by the Tucson (Ariz.) Star, published within sight of the mines; the Florence (Ariz.) Enterprise and the Hartford Post. These and other leading journals have published articles pronouncing the mines worth many times more than they are capitalized for.

The sale of the stock is being conducted upon a different plan from that generally employed, the management offering the direct for investment in any sized lots instead of making it a stock speculation.

The Hartford Post, in the full page article referred to, says:

WHAT THE HARTFORD "POST" SAYS.

Just now the newspapers have a great deal to say respecting a wonderful group of twelve gold and silver mines in southern Arizona, in the Owl's Head mining district, known as the Tortilita mines. As the readers of the Post are certain to be interested in these remarkable mines, which for some time to come are likely to be the centre of attraction for investors in mining stock, we take pleasure in presenting also some facts gleaned from reliable sources in furtherance of the Post's constant purpose to place before its readers in available form every good thing which the market affords.

THE GREAT TORTILITA.

A well known gentleman from the East, who is an expert in mining enterprises, for his own personal gratification made an examination of the Tortilita mines last month, and we are fortunately able to print his report here. We give his report in his own words:

"On arriving at the camp I inquired for the Superintendent of the mines, Mr. D. T. Elmore. I found Mr. Elmore a gentleman of about 50 years of age, a typical western man, well bronzed with the hot suns of this semi-tropical climate and the exposure resulting from thirty years' active mining life on the Pacific coast."

THE SUPERINTENDENT'S STATEMENT.

In reply to a question Mr. Elmore said: "I came here to take charge of this property three years ago. We have subsequently added to it by purchase and otherwise until we control all the valuable rights in this district. I have seen all the best mines in America, and worked in them, and I tell you here and now that the Tortilitas are the greatest and best of their class on the American continent."

EXPLORING THE MINES.

After a good night's rest I began a survey of the field with Mr. Elmore. We drove a mile and a half northerly to the By Chance Mine, where we found the men at work in four places. In shaft A, which is a distance of 190 feet from the south center end of the claim, ore is uncovered for a distance of several hundred feet, and in this distance varying from 50 to 100 feet apart, are four other openings running parallel. We went down an incline for thirty feet, and there a great wall of ore and a true fissure vein was disclosed to me. From this point I went through a tunnel and was shown large bodies of ore above me. We then returned and went down fifty feet further and there measured a breast of ore forty-two and a half feet wide, from which I took samples to the mill and saw worked, yielding an average of \$50 per ton. In three places in this vein below the water, ore has been uncovered, and the vein shown to be four feet wide and of unknown length and depth. This demonstrates the great value of this property, for, as

all mining men know, this concentration below the water level proves the permanency and value of a mine. The ore changes in character and becomes richer. I could see thousands of tons of ore in sight that only needs sufficient mill capacity to produce unlimited quantities of bullion. I saw the ore extracted from the earth, brought to the surface and turned into bullion under my own eyes.

OPINION OF THE FOREMAN.

Here I encountered the foreman under Mr. Elmore, an old, grizzled, storm-beaten, honest-visaged miner, named McGovern. Said he:

"I have worked on the Comstocks, I have been in the Silver King and other great mines. I have followed this business all my life. This is the richest property for its depth and development that I have ever seen, and you can hold me responsible for this statement—the Tortilitas will prove the best mines ever discovered on the Pacific slope. This one mine which I am now working in is worth more than a million dollars itself."

We then proceeded to the surface, and were taken to the abode of McGovern and shown the Jesse Benton mine, the sister property to the By Chance, 1,500 feet further north. This mine is considered in this section of the country even a better property than the By Chance, great as it is, on account of the large amount of ore that has been extracted and the development that has been done upon it. The ore is extremely rich, and there is a great deal of native silver. The pay streak is two and a half feet wide. This mine has a reputation second to none in this section of the country, and its product has been extraordinary.

After taking dinner at Mr. Elmore's, we drove a mile and a half southerly and examined the Red Peach, the Lazy Sleeper and the Desert mines. The two former are good mines. The Desert has a peculiar formation, from which \$38,000 has been taken out, with two shafts of 100 to 160 feet, and the smoothest kind of stails. There is an unlimited quantity of profitable ore in sight, and many believe this mine itself is worth the capital of the company. The Red Peach has probably a hundred tons of ore on its

thing that interests the stockholders after the value of the property.

I feel assured that in the near future the Tortilita mining camp will become one of the largest on the Pacific coast with the necessary machinery for working the mines.

Driving back to Tucson I remained there a short time, and found the Tortilita exciting more attention than any other mining property in the Territory, and there are some rich ones there. For example, the Silver King, not far distant, has paid \$2,000,000 (\$20 per share) in dividends from one mine alone, while the Tortilita company has twelve. The Raymat and Vikol, in another direction, has turned out millions, and made their owners rich, as have the renowned Tombstones and Quijotos. The Tortilitas are on the tongue of everybody, and Mr. Elmore is looked for with bullion every month as regularly as the month comes round.

THE MANAGEMENT.

Before any further reference is made to the mining properties briefly described above, it will be proper to say something about the personnel of the company into whose possession these mines and their accessories have come; for the readers of the Post are always inquisitive concerning new acquaintances. The Tortilita Gold and Silver Mining Company has for its president Mr. Joseph H. Reall, president also of the American Agricultural and Dairy Association, and well known among the farmers of America, an experienced business man, well versed in financial matters, whose name is prominently mentioned for Vice-President of the United States, with Cleveland, as the representative of the agricultural interests; and Rodman M. Price, Jr., the secretary, is a well-known mining and civil engineer, who has just returned from an eight years' residence in Arizona, where he selected the Tortilitas as the best mines in the Territory. He is a worthy son of his distinguished father, ex-Governor Price.

THE PROPERTY SELF-SUSTAINING.

This property, unlike most mining enterprises inviting capital, is a producing and self-sustaining one, with a five-stamp mill in good order, which has been

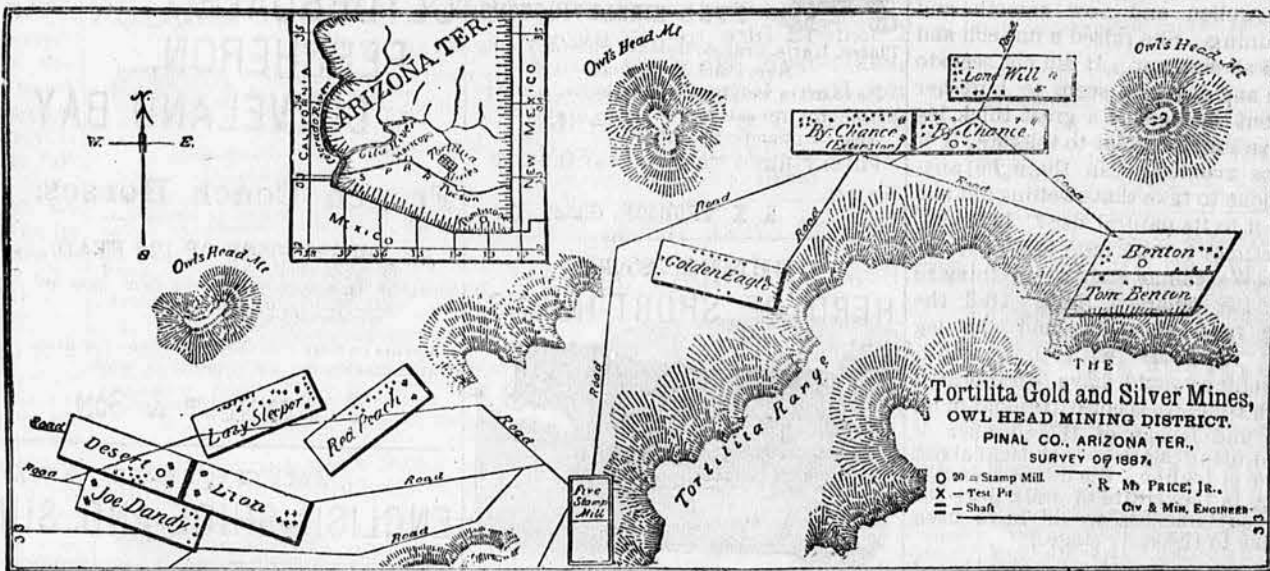
mines is the fact that from the beginning the output of bullion has paid for every dollar's worth of development. Not a dollar expended which has not come out of the mines. And this means much, for the mines have not been operated so much to take out ore as to ascertain from prospecting the true merit of the mines. However, many thousands of dollars were expended in dead work in sinking prospect shafts, drifting, timbering and tunneling to learn the extent, richness and permanency of the ore lodes. These facts have been well determined. During their development nearly \$175,000 of bullion has been produced by these mines and under adverse conditions. A twenty or forty-stamp mill is what the district needs. With the present management and such a mill the Tortilita mining district would be the largest bullion producer in Arizona. The ore is there. The water and wood are there in abundance. Everything is favorable to the working of these mines and the production of bullion.

SURROUNDED WITH ALL THE CONDITIONS FOR SUCCESS.

The fact is the Tortilita mines are surrounded with all the conditions necessary to a prosperous mining camp. Add to this the fact that the management is under D. T. Elmore an experienced mining and mill man of twenty years in the mines and mills of the Pacific slope, especially in the mines of Nevada. Thus the company is assured against the blunders and incompetency of an inexperienced management, which has been the cause of so many mining failures all over the country. Mr. Elmore knows every detail necessary to the successful management of a mining property, which insures the best results from these mines.

Regularly every month a shipment of silver bullion has been made from these mines through the Tucson bankers to San Francisco. It is well known that a large amount of development and prospecting has been going on, with the product of the mines paying all expenses, and the credit of the company the very best.

This group of mines contains enough of rich min-



dump, with four shafts varying from sixty to a hundred feet deep.

The Lazy Sleeper, too, has a great deal of development upon it.

The Golden Eagle is a gold mine of fine promise, from which I saw certificates of large yields.

WONDERFUL FIGURES.

Asked what improvements were contemplated, Mr. Elmore said: "We can easily supply three twenty-stamp mills for an indefinite period on these properties. They would work 180 tons of ore per day, at an average of \$50 per ton. At a low estimate this would be \$9,000 per day."

"With the proper machinery this can be worked at an expense of \$10 per ton, which would be \$1,800 per day, leaving net per day \$7,200, or for thirty days \$216,000, or for a year, \$2,592,000, which will be over two and a half times our capital stock each year; but at first we will start with a twenty-stamp mill, which should give us \$900,000 per year net, or 80 per cent. per annum on our capital stock. I am now bending every effort toward attaining these results. We are negotiating now for hoisting works and a forty-stamp mill, and I hope soon to obtain them. Meanwhile we shall continue to run our little five-stamp mill, and develop and improve the property all in our power. I know of no investment in America that will pay as well as the shares of our company."

WORTH MANY MILLIONS.

After a week's time spent at the mines in daily examination of the work, in seeing assays made, watching the battery samples and seeing the ore retorting and running into bullion and stamped, and reading certificates of \$150,000 for bullion shipped to the Bank of California in the last two years, and seeing one bar of 2,400 ounces sent forward while I was there, I left impressed with the fact that the Tortilita deserved the confidence of the public, and that the management in New York had far underestimated its value in their statements. I found property worth anywhere from \$10,000,000 to \$50,000,000, and possibly \$100,000,000, as the Comstocks have proven to be, and have made thousands of men rich. I found the Tortilita not only a great property, but one that is managed in the best way. It has a jewel in Mr. Elmore, the superintendent, who is as honest as he is able, the essential

running for nearly three years continually; the mill has just been furnished with newcams, dies and tappets, which puts the plant reality in as good order as when built; nine tons of ore are worked per day, while with a twenty-stamp mill to be erected, forty tons can be worked at but slight additional expense and over \$5,000 per day earned.

WHAT PRESIDENT REALL SAYS.

Present Reall, in a recent interview, printed in the Boston Globe, said:

"When the former owners of the Tortilita came to me with their properties, recommended by some of the best men in America for their personal worth, they asked me to accept the presidency of the company and raise capital to extend their work. I investigated the enterprise thoroughly, only to find that their representations were far beneath what the facts would bear, and I am getting daily proofs of the greater value of the property. When I took hold of the enterprise I determined to apply the business principles to it which I had learned by twenty years' active experience. I realized the prejudices that had to be met and the difficulties that had to be overcome. I determined to handle mining stock the same as any regular commodity—that is, to sell it on its merits for what it was worth. The public have recognized the value of the enterprise far beyond my expectations, and have shown their confidence in it to a greater extent than was ever shown before. I found investors ready for an enterprise conducted on sound business principles, and they will reap their reward. I do not know whether the stock will pay \$1 or \$2 per share in dividends, but I do know it is cheap at \$2, the present price, and many believe it will certainly sell for ten times that figure. Three of the mines are now being operated, and either of them are demonstrated to be exceptionally rich in ore and worth far more than the entire capital stock of the company, not counting the other mines."

The final and clinching evidence in regard to these properties is found in the following from the Tucson Star, published near the mines, whose editor, Mr. L. O. Hughes, is a leading mining expert and personally familiar with the subject concerning which he writes. He says:

"One of the best evidences of the future of these

eral to make a flourishing bullion camp for many years to come, with splendid returns to the fortunate owners of the magnificent property.

From the Arizona Weekly Enterprise, Aug. 16, 1887.

Pinal county is famous for the extent and permanency of its mines, many of them being wonders in their way, yielding rich returns to their fortunate owners and constantly improving with further developments. The Silver King, the Vekol, the Mammoth and the mines of the Tortilita Gold and Silver Mining Company at the Owl Heads are each steady producers, and they stand upon their merits as brilliant samples of the successful industry—not lottery—of mining.

A representative of the Enterprise visited the Owl Heads this week and made a thorough examination of the mines and the camp. The bullion produced and shipped since the mill started closely approximates \$175,000—a most remarkable output under the circumstances.

The increase in the capacity of the mill is a necessity that the success of the company now chiefly depends upon, for the mines are capable of supplying far more ore than such a mill can reduce.

CONCLUSION.

The shares of the Tortilita Company are being taken all over the country for investment by bankers, merchants, farmers, mechanics and laboring men and women. They can only be bought now by private subscription, and those wishing to purchase will do well to send in their orders at once, as the books will soon close preparatory to calling the stock on the board. The shares can now be bought at par in any sized lots from one share to 5,000 direct from Joseph H. Reall, at the company's office, No. 57 Broadway, New York.

It is believed that the Tortilita is one of the soundest and best mining enterprises yet brought to the attention of the public, and that those who invest in it will reap handsome returns. They are at least sure of a safe investment and good dividends.

There is but a portion of the stock for sale, and that is for the purpose of putting up the additional machinery required.—New York Star.

The Veterinarian.

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

INJURED.—We have a mule that received a cut above the hoof on the fore part of the leg on the hind foot, in July last. We have tried to heal it, and in so doing quite a bunch formed; in getting up he gets it raw, and yellow water oozes from it all the time. What can be done to heal it? [A careful examination with a probe will probably reveal the existence of one or more sinuses (pipes) communicating with the external wound, and constituting what is technically known as a "Quittor." After poulticing thoroughly inject the sinuses with a saturated solution of sulphate of zinc.]

SWELLING OF THE LEG.—I will ask your veterinarian to answer through your columns in regard to a fine mare my son owns. She had a foal last summer. About the time of foaling her right hind leg became very much swollen from the hoof to the stifle. He blistered it several times during the summer, but it did not seem to do any good. It would break out in blisters all over about the size of a silver dollar; then dry and rub off with a kind of matter under; then heal over. She never was lame, and is not now, but the leg is very much swollen and now smooth and coat shining. She raised a fine colt and worked all summer. It did not seem to be sore and does not seem to hurt her any; but the sight of a great thick leg is an eye-sore too great to tolerate, if it could be avoided. Can there be anything done to take that swelling out and reduce it to its natural size? Is it what is sometimes termed milk leg, or what is it? [We cannot suggest anything to reduce the enlarged limb. Had the blisters been withheld, and the leg simply fomented with hot water, the swelling would have disappeared through time. It is constitutional in its origin, and is one of the number of peculiar manifestations that occur about the time of foaling. We do not regard it as being in the nature of milk leg, for were it so lameness would have been excessive in the early stage.]

RACHITIS.—I have a very fine brood mare. She has had five colts in succession; the three first were very good colts, the two last were equally as good in build, with the exception of their front legs, which were very crooked, apparently paralyzed. The colts also were ruptured and their navel would not heal up, with water seeping out continually. The colts did not live a week. The mare's treatment was about the same all the time. Please tell me what might be the cause of this. [Your colts have suffered from rickets, or technically called rachitis, at the time of their birth, and complicated as it has been with water escaping from the navel opening there is no hope of saving such cases. If the trouble can even be prevented much is gained, and in this connection it would be well to inquire as to the quality of water which the dam is allowed to drink. It is well known that there is in this disease a deficiency of the lime salts, which are principally the phosphate and carbonate of lime, which form the inorganic portions of bone. These may even be present in the food and water partaken of by the mother and yet the connection between the mother and young may not be able to assimilate them. We would advise that should lime salt be deficient in your locality that the mare be allowed about half a pint or a pint of lime water three times daily for four or five weeks before foaling, and also that plenty of salt be placed within her reach when she has foaled, should the foal show any weakness; allow the mare to stop with him, so he can drink when he pleases and not overload the stomach as would be the case should she remain away for hours, producing indigestion, rickets, etc. Change the horse this year.]

Devon Cattle!

We are the largest breeders of this hardy, easy-keeping breed, one of the best for the West. Stock for sale singly or car lots.
RUMSEY BROS. & CO.,
EMPORIA, KANSAS.

TIMBER LINE HERD Holstein - Friesian Cattle.

We have for sale any or all of our entire herd of Holstein-Friesian Cattle, consisting of Cows, Heifers and Calves—full-bloods, and Grades up to fifteen-sixteenths. Ask for just what you want. Send for prices of family cows—grades. All our Holsteins will be at Winfield, Kas., after April 1, 1887.
W. J. ESTES & SONS.

ROHRER STOCK FARM

—OF—
NEWTON, - - KANSAS,
Breeder of A. J. C. C. H. R.

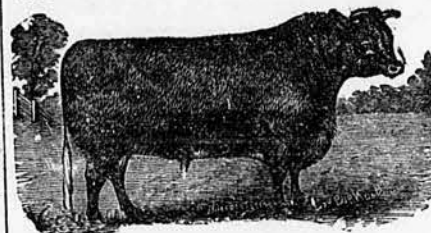
Jersey Cattle.

The herd is headed by the Stoke Pogis Victor Hugo Duke bull, St. Valentine's Day 1878, and the Coomassie bull, Happy Gold Coast 1878. Sons and daughters by above bulls out of highly-bred cows, for sale for next ten days.
Address S. B. ROHRER.

BRIGHTWOOD HERD OF SHORT-HORNS

Bates and Standard Families, including
PURE KIRKLEVINGTONS,
Places, Harts, Craggs, Roses of Sharon, Young Marys and Josephines.
Have extra well-bred young bulls, ready to head herds, for sale now at terms to suit.
Also two handsome, rangy,
FINELY-BRED TROTTER STALLIONS
for sale.
R. E. THOMSON, Slater, Mo.

SUNNY SIDE HERD OF SHORT-HORNS.



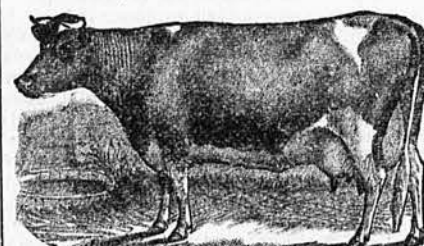
Is composed of such strains as MARYS, KIRKLEVINGTONS, BATES, ROSE OF SHARON, JOSEPHINES, YOUNG PHYLIS, and other noted families. DUKE OF RATHWOLD—heads the herd. Animals of good individual merit and pedigree for sale on terms to suit purchasers. Address FRANK CRAYCROFT, SEDALIA, MO.

Holstein - Friesian Cattle

Of European Herd Book Registry.



The sweepstakes bull PRINCE OF ALTIJDWERK (61 M. R.) at head of herd, has no superior. Cows and heifers in this herd with weekly butter records from 14 pounds to 19 pounds 10 1/2 ounces; milk records, 50 to 80 pounds daily. The sweepstakes herd. Write for catalogue. M. E. MOORE, Cameron, Mo.
[Mention this paper.]



H. V. PUGSLEY,
PLATTSBURG, MO.,

Breeder of Holstein-Friesian Cattle, of the Mercedes, Helmtje, Katy K., and other noted families. Herd headed by the prize bull MINK 3d's MERCEDES PRINCE 2361. Have Merino Sheep. Catalogues free.
[Mention this paper.]

SPECIMEN OF CALVES BRED AT THE MOUNT -:- PLEASANT -:- STOCK -:- FARM.



Descendants of Royal English winners and Sweepstakes winners at the prominent fairs of the United States. Sweepstakes herd at the great St. Louis Fair in 1885.

This herd is one of the oldest and largest in the country, comprising 300 head of choicest Herefords from all the best strains in England and America. The herd is headed by famous first-prize and sweepstakes bulls: FORTUNE 2080, one of the most celebrated bulls of the breed, by the famous Sir Richard 2d 970a—the smoothest, blackest family of the breed: Sir Evelyn 9650, one of the best sons of Lord Wilton 4057; Grove 4th 13732, an illustrious son of Grove 3d 2490; Dewsbury 2d, 18977, by the celebrated Delley 9495.

For SALE—Cows, Bulls and Heifers, either singly or in car lots, at the very lowest prices consistent with first-class breeding and individual merit. Special prices given to parties starting herds. Visitors always welcome. Catalogues on application.
J. S. HAWES, Colony, Anderson Co., Kas.



EARLY DAWN HEREFORD HERD, The Champion Herd of the West,

—CONSISTING OF—
250 HEAD OF THOROUGHbred HEREFORD CATTLE.

The sweepstakes bulls BEAU MONDE and BEAU REAL and first-prize Wilton bull SIR JULIAN, out of the famous English show cow Lovely, by Preceptor, are our principal bulls in service.

E. S. SHOCKEY, Secretary, Maple Hill, Kansas.

Twenty miles west of Topeka, on the C. R. I. & P. R. R.

E. Bennett & Son,

TOPEKA, - KANSAS,

The Leading Western Importers of

CLYDESDALE,
PERCHERON,
CLEVELAND BAY

—AND—
French Coach Horses.

AN IMPORTATION OF 125 HEAD,
Selected by a member of the firm, just received.

Terms to Suit Purchasers. Send for illustrated catalogue. Stables in town.

E. BENNETT & SON.



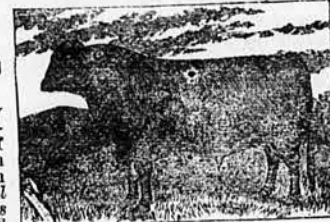
IMPORTERS AND BREEDERS OF ENGLISH SHIRE AND SUFFOLK PUNCH HORSES



Monitor (3332).

RED POLLED CATTLE.

We have on hand a very choice collection, including a recent importation of horses, several of which have won many prizes in England, which is a special guarantee of their soundness and superiority of form and action. Our stock is selected with great care by G. M. SEXTON, Auctioneer to the Shire Horse Society of England. Prices low and terms easy. Send for catalogues to



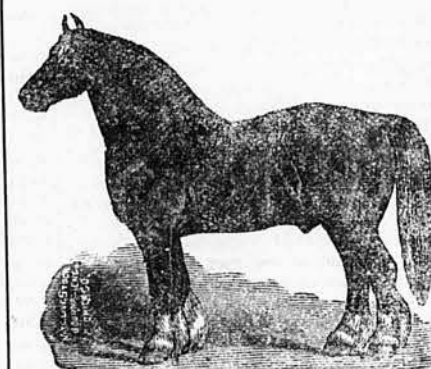
Peter Piper (717).

SEXTON, WARREN & OFFORD,
34 East Fifth Ave., Topeka, or Maple Hill, Kansas.

JOHN CARSON,

Pleasant View Farm,

Winchester, Jefferson Co., Kansas,



IMPORTER AND BREEDER OF

Clydesdale, Percheron-Norman & Cleveland Bay HORSES.

Have now on hand for sale horses of each breed, thoroughly acclimated. Stock guaranteed. Inspection and correspondence invited.

RIVERSIDE STOCK FARM, DEGEN BROS., Ottawa, Ill.



Importers and Breeders of French Draft and French Coach Horses. We have now over 75 head of imported French Draft Stallions and Mares on hand. Our importations this year have been selected from the best breeding district in France. Our stock is all recorded in France and in the National Register of French Draft Horses in America. Our French Coach Horses are the best that could be found in France. We will be pleased to show our stock to visitors. Correspondence invited and promptly answered.
DEGEN BROS.

PENSIONS For Mexican War and Union Veterans.
MILO B. STEVENS & CO.,
Washington, Cleveland, Detroit and Chicago.

Regular subscription price of the KANSAS FARMER is now \$1 a year, within reach of all.

Early in the autumn it is very desirable to closely scan over the stock of old birds in order to see how many of them are to be retained, either for breeders next season, or as layers. It is always a safe rule to kill off every year those hens that will not be needed later on, just before they go into their first or second adult moult—that is, when they are eighteen or thirty months old.

"How Can She Ever Love Him?"

is what you often hear said when the prospective groom is the victim of catarrh. "How can she bear such a breath?" "How resolve to link her destiny with that of one with a disease, that unless arrested, will end in consumption, or perhaps in insanity?" Let the husband that is, or is to be, get Dr. Sage's Catarrh Remedy, and cure himself before it is too late. By druggists.

A new and extraordinarily fine variety of asparagus has just been discovered on the steppes of Akhal-Tekiz, recently annexed by Russia. Though growing perfectly wild, it attains a size unknown in civilized countries. The stalks are said to be nearly as thick as a man's arm, and they grow to a height of five or six feet. This asparagus is tender and delicious in flavor. One stalk will supply ten Russian soldiers with all they can eat.

Farm Loans.

Loans on farms in eastern Kansas, at moderate rate of interest, and no commission. Where title is perfect and security satisfactory no person has ever had to wait a day for money. Special low rates on large loans. Purchase money mortgages bought.

T. E. BOWMAN & Co.,
Bank of Topeka Building, (upper floor),
Topeka, Kas.

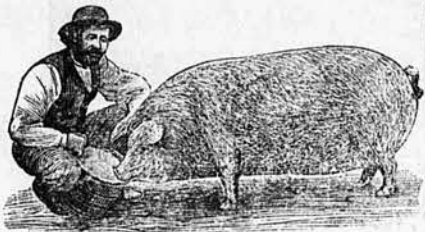
The necessity for pruning grape vines regularly arises from the fact that all the most desirable varieties are inclined to set more fruit than can be matured properly; and the overbearing injures the vine greatly, while at the same time it prevents the full development of the fruit so allowed to remain. In the case of varieties which are not very strong growers—Delaware, for instance—one overcrop may kill the vine or cripple it for years.

Are You Going South?

If so, it is of great importance to you to be fully informed as to the cheapest, most direct and most pleasant route. You will wish to purchase your ticket via the route that will subject you to no delays, and by which through trains are run. Before you start, you should provide yourself with a map and time table of the Gulf Route (Kansas City, Ft. Scott & Gulf R. R.), the only direct route from and via Kansas City to all points in Eastern and Southern Kansas, Southwest Missouri, and Texas. Practically the only route from the West to all Southern cities. Entire trains with Pullman Palace Sleeping Cars, and Free Reclining Chair Cars, Kansas City to New Orleans. No change of cars of any class, Kansas City to Chattanooga, Knoxville and Bristol, Tenn. This is the direct route, and many miles the shortest line to Little Rock, Hot Springs, Eureka Springs, Fort Smith, Van Buren, Fayetteville, and all points in Arkansas. Send for a large map. Send for a copy of our "Missouri and Kansas Farmer," an 8-page illustrated paper, containing full and reliable information in relation to the great States of Missouri and Kansas. Issued monthly and mailed free.

J. E. LOCKWOOD,
Address,
G. P. & T. A., Kansas City.

FOX RIVER VALLEY HERD OF IMPROVED CHESTER HOGS.



I have a few prize-winning boars for sale, also forty-five head of aged sows have farrowed this spring. Orders booked for pigs without money till ready to ship. Nothing but strictly first-class pigs shipped. Prices reasonable and satisfaction guaranteed. My motto: "Individual superiority and best of pedigree." I am personally in charge of the herd.

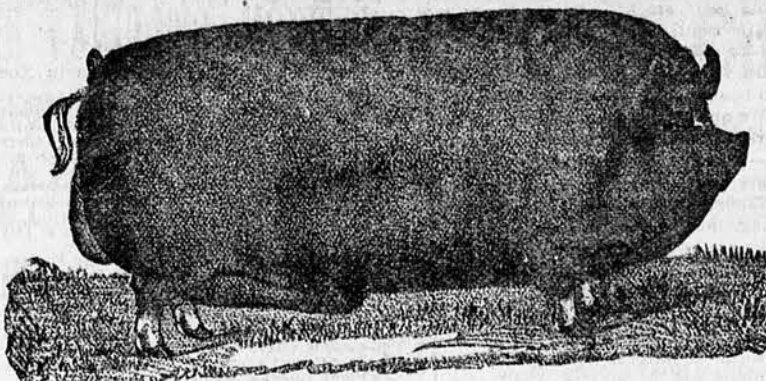
T. B. EVANS, Geneva, Ill.



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

ROME PARK STOCK FARM.

PURE-BRED POLAND-CHINAS.



LARGE ENGLISH BERKSHIRES.

T. A. HUBBARD, PROP'R, WELLINGTON, KANSAS. — Sweepstakes on herd, breeders' ring, boar and sow, wherever shown in 1886, except on boar at Winfield, winning (75) premiums at four fairs, including Grand Silver Medal for Best Herd, at Topeka. Stock recorded in Ohio Poland-China and American Berkshire Records. In addition to my own breeding, the animals of this herd are now and have been prize-winners. Selected from the notable and reliable herds of the United States, without regard to price. The best and largest herd in the State. I will furnish first-class hogs or pigs with individual merit and a gilt-edged pedigree. Single rates by express. Personal inspection solicited. Correspondence invited.

LANEY & PFAFF, GREEN RIDGE, MISSOURI.

THOROUGH-BRED

POLAND-CHINA HOGS

FOR SALE.

No poor pigs sent out. [Mention KANSAS FARMER.]

Pure-bred Poland-Chinas

C. G. SPARKS,

Mt. Leonard, -- Mo.



BLACK U. S. at head of herd. About sixty choice pigs, both sexes, for sale.

Stock recorded in A. P.-C. and O. P.-C. Records.

Special express rates.

POLAND-CHINA PIGS!

135 FOR SALE.



Sired by six first-class boars, for season's trade. My herd is headed by STEM WINDER 7971.

Address F. M. LAIL, Marshall, Mo.
[Mention KANSAS FARMER.]

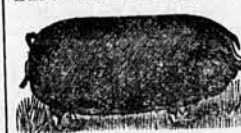
OTTAWA HERD.



POLAND-CHINA & DUROC-JERSEY SWINE of the most popular strains, at prices to suit the times. Send for catalogue and price list.

I. L. WHIPPLE, Ottawa, Kansas.

THE GOLDEN BELT HERD OF THOROUGH-BRED POLAND-CHINAS.



Every breeder is strictly first-class and registered in the American P.-C. Record. A comparison with any other herd in the United States is solicited. I will sell first-class boars, ready for service in November and December, for \$20 each, on orders received on or before October 10, 1887, and deliver them by express free, within 100 miles of Lyons. Sixty choice April and May sows for sale. Cash to accompany order. Satisfaction guaranteed. Pedigree with every sale.

F. W. TRUSDELL,
LYONS, RICE CO., KAS.

NATIONAL HERD.

Established 1845. THOROUGH-BRED POLAND-CHINAS as produced by A. C. Moore & Sons, Can.

100 sows and 12 males. All recorded in A. P.-C. Record. Pigs all eligible to record. Pedigree sent when desired.



COME AND SEE OUR STOCK. We have special rates by express. If not as represented we will pay your expenses.

Gold Dust Herd of Poland-Chinas.



J. M. McKEE, WELLINGTON, KANSAS.

My herd is composed of such strains as Black Bess, Give or Take, Tom Corwin, Gold Dust and U. S. I sell nothing but first-class hogs of individual merit and gilt-edged pedigree. Choice pigs a specialty. Plymouth Rock Chickens of superior quality. Correspondence invited. Mention KANSAS FARMER.

CHOICE

Berkshire and Small Yorkshire

PIGS and MAMMOTH BRONZE TURKEYS. We have a splendid lot of the above named hogs and turkeys for sale at hard time prices. Write for prices before making purchases if you need anything in this line. Satisfaction guaranteed.

WM. BOOTH & SON,
Winchester, Kas.

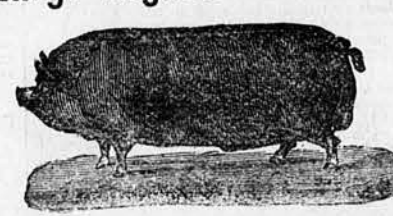
SELECT HERD OF LARGE BERKSHIRES!

G. W. BERRY, PROP'R, TOPEKA, KAS.

My breeders have been selected, regardless of expense, from the leading herds of the United States; are bred from the best stock ever imported, and represent seven different families. Healthy pigs from prize-winning stock for sale. Write for circular and prices or come and see. [Mention this paper.]

For Berkshire Swine, South-down Sheep, and Bronze Turkeys, that are first-class, or money refunded, call on or address J. M. & F. A. SCOTT, Box 11, Huntsville, Mo.
[Mention KANSAS FARMER.]

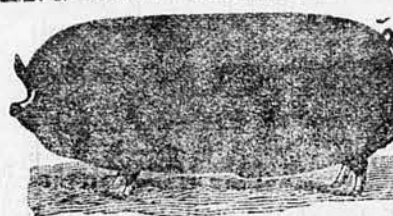
LOOUST GROVE HERD OF Large English Berkshires



Headed by GOLDEN CROWN 14823, A. B. R. CHOICE PIGS FOR SALE, either sex. Everything as represented. Write me, and please mention this paper.

JAMES HOUK,
Address HARTWELL, HENRY CO., MO.

ENGLISH BERKSHIRES.

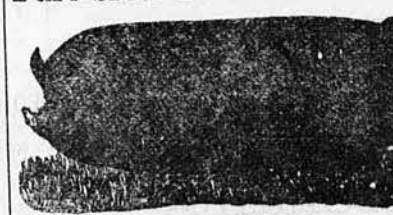


THE WELLINGTON HERD consists of twenty matured brood sows of the best families of home-bred and imported stock, headed by the celebrated HOPEFUL JOE 4889, and has no superior in size and quality nor in strain of Berkshire blood. Also Plymouth Rock Chickens. Your patronage solicited. Write. [Mention this paper.]

M. B. KEAGY, Wellington, Kas.

PLEASANT VALLEY HERD

Pure-bred Berkshire Swine.



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

S. McCULLOUGH,
Ottawa, Kansas.

CHICAGO, KANSAS & NEBRASKA R'Y.

ROCK ISLAND ROUTE

TIME CARD:

ATLANTIC EXPRESS.

Arrives from Chicago.....12:25 p. m.
Leaves for Chicago.....2:45 p. m.
Depot, Union Pacific R. R., North Topeka.

ALMA ACCOMMODATION.

Arrives at Topeka.....11:50 a. m.
Arrives at North Topeka.....12:00 noon.
Leaves North Topeka.....1:00 p. m.
Leaves Topeka.....1:10 p. m.
From crossing R. R. street and C. & N. track, North Topeka.

ALL TRAINS RUN DAILY.

MISSOURI PACIFIC RAILWAY.

ONLY LINE RUNNING

3 DAILY TRAINS 3

BETWEEN

ST. LOUIS & KANSAS CITY.

Double Daily Line of Free Reclining Chair Cars to OMAHA.

Elegant Parlor Cars to KANSAS CITY, and Reclining Chair Cars Free on all trains.

2-DAILY TRAINS-2

ST. LOUIS TO WICHITA AND ANTHONY, KAS.

THE IRON MOUNTAIN ROUTE

Is the only route to the Great Hot Springs of Arkansas, and the most direct route to all points in Texas.

Only one change of cars St. Louis to San Francisco.

Through Pullman Buffet Sleeping Cars to Memphis, Mobile, Malvern, Houston, Galveston, and all principal Southern points.

Information cheerfully furnished by Company's agents. H. C. TOWNSEND,
W. H. NEWMAN, Gen'l Pass. & Tk't. Agt.
Gen'l Traffic Man., St. Louis, Mo.

The line selected by the U. S. Gov't to carry the Fast Mail.

Burlington Route

H&STJ-KC-STJ-&C.B.R.R.S

5,000 MILES IN THE SYSTEM, With Elegant Through Trains containing Pullman Palace Sleeping, Dining and Chair Cars, between the following prominent cities without change:

CHICAGO, PEORIA, KANSAS CITY,
ST. LOUIS, DENVER, OMAHA,
ST. JOSEPH, QUINCY,
BURLINGTON, HANNIBAL,
KEOKUK, DES MOINES,
ROCK ISLAND, LINCOLN,
COUNCIL BLUFFS,
ATCHISON, TOPEKA,
LEAVENWORTH,
SIOUX CITY, ST. PAUL,
MINNEAPOLIS.

Over 400 Elegantly Equipped Passenger Trains running daily over this perfect system, passing into and through the important Cities and Towns in the great States of

ILLINOIS, IOWA, KANSAS, MISSOURI, NEBRASKA, COLORADO, MINNESOTA.

Connecting in Union Depots for all points in the States and Territories, EAST, WEST, NORTH, SOUTH. No matter where you are going, purchase your ticket via the

"BURLINGTON ROUTE"

Daily Trains via this Line between KANSAS CITY, LEAVENWORTH, ATCHISON, ST. JOSEPH and DES MOINES, COUNCIL BLUFFS, OMAHA, SIOUX CITY, ST. PAUL and MINNEAPOLIS.

KANSAS CITY, ATCHISON, ST. JOSEPH and QUINCY, HANNIBAL and CHICAGO, Without Change.

J. F. BARNARD, GEN'L MGR., K. C., ST. J. & C. B. AND

H. & ST. J., ST. JOSEPH.

A. C. DAWES, GEN'L PASS. AGT., K. C., ST. J. & C. B. AND

H. & ST. J., ST. JOSEPH.

THIS PAPER is or file in Philadelphia at the Newspaper Advertising Agency of Messrs. N. W. AYER & SO., our authorized agents.

THE MARKETS.

By Telegraph, September 26, 1887.

LIVE STOCK MARKETS.

St. Louis.

CATTLE—Receipts 445, shipments 1475. The market is steady. Fair to choice native steers 3 95a 65, medium to choice butchers steers 3 40a 60, fair to good feeders 2 70a 30, common grass to good corn-fed Texans and Indians 2 10a 40.

HOGS—Receipts 875, shipments 2,570. Market firmer and stronger. Choice heavy and butchers selections 5 00a 15, mixed and choice packing and yorkers 4 70a 95, grassers and pigs common to good 4 10a 65.

SHEEP—Receipts 3,500, shipments 1,940. Market steady. Fair to choice 3 10a 00, lambs 3 70a 45.

Chicago.

The Drovers' Journal reports:

CATTLE—Receipts 13,000, mostly Texas and Western; shipments Good natives steady to strong; others lower. Choice steers 4 70a 50, good 4 20a 60, medium 3 50a 10, common 2 85a 50, stockers 1 60a 25, feeders 2 50a 20, bulls 1 50a 25, cows 1 25a 25, Texas cattle, 1 50a 15.

HOGS—Receipts 16,800, shipments Market 5a 10c lower. Mixed 4 40a 80, heavy 4 60a 50, light 4 60a 85, skips 2 85a 50.

SHEEP—Receipts 5,500, shipments Market strong. Natives 2 00a 15, Western 2 80a 30, Texans 2 50a 30, lambs, per cwt., 4 25a 55.

Kansas City.

Drovers' Telegram:

CATTLE—Receipts from 5 p. m. Saturday to 12 m. to-day, 5,005 cattle, 1,928 hogs and 293 sheep. Held over, 309 cattle, 1,689 hogs and 672 sheep. Total, 5,314 cattle, 3,616 hogs and 1,045 sheep. For the year to date receipts show 106,481 cattle, 94,052 hogs and 16,541 sheep increase over 1886.

BEEF STEERS—There were only 25 to 30 loads of natives on the market, and still less cornfed steers. Good to choice natives were sought and sold steady. Business was light for lack of supply. Armour Packing Co. bought the principal drove of 108 head at \$4.05.

HOGS—The best part of the market was for smooth, 200 to 230-lb stock, on which the market opened steady to a single buyer. His order filled business grew dull and bids 10c lower. Mixed packing stock opened lower and averaged 5c lower, closing 10 to 15c lower. 240 to 260-lb mixed stock sold at \$4.45a 50 for fair quality, and good at \$4.55a 65.

SHEEP—Receipts since Saturday 293 head. Offerings common and market quiet at about Saturday's prices. Good to choice \$3 00a 75, common to medium \$2 60a 75.

PRODUCE MARKETS.

St. Louis.

WHEAT—No. 2 red, cash, 70c.
CORN—Cash, 38½c.
OATS—Cash, 23½c.
RYE—Dull at 45c bid.
LARD—Weak. Common \$4 07½, selling at \$4 a 5 to close.
BUTTER—Quiet. Creamery 20a 24, Dairy 14 a 20.

Chicago.

Cash quotations were as follows:
WHEAT—No. 2 spring, 70½a 71c; No. 3 spring, 65½c; No. 2 red, 72½c.
CORN—No. 2, 42c.
OATS—No. 2, 25c.
RYE—No. 2, 47½c.
FLAXSEED—No. 1, \$1 05½.
PORK—\$15 00.
LARD—\$6 45.

New York.

WHEAT—No. 2 red, 81a 84c.
CORN—No. 2, 51a 52½c.

Kansas City.

WHEAT—On track by sample: No. 2 soft, cash, 55c.
CORN—On track by sample: No. 2 corn, cash 37½c.
OATS—On track by sample: No. 2 mixed, cash, 23c; No. 2 white, cash, 25½c.
RYE—No. 2 cash, 40c bid, 47 asked.

HAY—Receipts 11 cars. Quality of receipts is fair, but the market is still supplied with common and poor stock. Strictly fancy is firm at 9 00 for small baled; large baled, 8 50; wire-bound 50c less.

OIL-CAKE—Per 100 lbs. sacked, 1 25; 2000 per ton, free on board cars; car lots, 18 00 per ton.

SEEDS—We quote: Flaxseed, 90c per bu. on basis of pure; Castor beans 95a 00 for prime.

BUTTER—Receipts larger, market steady for all grades. Low grades quiet. We quote: Creamery, fancy, 23c; good, 20c; fine dairy in single package lots, 16c; storepacked, do., 12a 13c for choice; poor and low grade, 9a 11c.

CHEESE—We quote: Full cream, twins, 13c; full cream, Young America, 13½c.

EGGS—Receipts smaller and market steady at 14c per dozen for fresh.

VEGETABLES—Potatoes, home-grown, 58c per bus. Onions, red, 75c per bus.; California, 1 20 per bus. Cabbage, 2a 2½c per lb.

BROOMCORN—We quote: Green self-working, 4½c; green hurl, 5c; green inside and covers, 3a 3½c; red-tipped and common self-working, 2c; crooked, 1½c.

PROVISIONS—Following quotations are for round lots, Job lots usually ¼c higher: hams, 11½c; breakfast bacon, 11½c; dried beef, 9c; clear rib sides, 7 75; long clear sides, 7 65; shoulders, 5 25; short clear sides, 8 25. Smoked Meats—Clear rib sides, 8 50; long clear sides, 8 40; shoulders, 6 00; short clear sides, 9 00; mess pork, 15 00; tierce lard, 6 50.

Topeka Markets.

PRODUCE AND PROVISIONS—Corrected weekly by W. W. Manspeaker & Co., 711 Kansas avenue. (Wholesale price).

Butter, per lb.	15a 18
Eggs (fresh) per doz.	15a
Beans, white navy, H. P., per bus	2 25
Sweet potatoes	50a 75
Apples	40a 60
Potatoes	1 25a 50
Onions	50a
Beets	60a
Turnips	50a
Tomatoes	50a
Cabbage	per doz 30a
Pumpkins	75a
Squash	60a 1 00

Kansas Fairs.

Bourbon—Fort Scott, October 4-7.
Brown—Hiawatha, October 4-7.
Crawford—Girard, October 4-7.
Chautauqua—Chautauqua Springs, Oct. 4-7.
Edwards—Kinsley, September 27-30.
Elk—Howard, September 22-24.
Ford—Dodge City, October 5-7.
Franklin—Ottawa, September 27 to October 1.
Graham—Hill City, Sept. 29 to October 1.
Harvey—Newton, September 26-29.
Jefferson—Nortonville, September 28-30.
Jewell—Mankato, September 27-30.
Mitchell—Beloit, October 12-14.
Marshall—Frankfort, September 28 to Oct. 1.
Osage—Burlingame, September 27-30.
Phillips—Phillipsburg, September 27-30.
Pottawatomie—St. Marys, October 4-7.
Pratt—Pratt, October 11-13.
Rice—Lyons, October 10-13.
Rooks—Plainville, September 27-30.
Rene—Hutchinson, October 4-7.
Wabaunsee—St. Marys, October 5-8.

STATE AND DISTRICT FAIRS.

Kansas City Fair—Kansas City, Mo., September 26 to October 1.
Kansas City Fat Stock Show—October 27 to November 3.
St. Louis Fair—St. Louis, October 3-8.

If you are a breeder of thoroughbred fowls, now is the time to pick your next year's pullets and cockerels and push them all you can by an extra amount of feeding and good attention. The stronger and healthier they enter the winter the better they come out of their winter quarters for business next spring. Give them all the fresh meal and bone they will eat up clean.

General Geary, while Governor of Pennsylvania, wrote Dr. Shallenberger: "I regard your Antidote as a public benefaction. In my case, as well as in many others known to me, it has proven an invaluable remedy for chills; not only prompt in curing, but singularly pleasant and beneficial in its general effects upon the system."

WORK FOR ALL. \$50 A WEEK and expenses paid. Outfit worth \$5 and particulars free. P. O. Vickery, Augusta, Me.

THE STRAY LIST.

HOW TO POST A STRAY.

THE FEES, FINES AND PENALTIES FOR NOT POSTING.

BY AN ACT of the Legislature, approved February 27, 1886, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisement, to forward by mail, 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 \$5.00 to \$50.00 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.

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

Unbroken animals can only be taken up between the first day of November and the first 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 up, shall come upon the premises of any person, and he fails for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

Any person taking up an 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 description and value of such stray.

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

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

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

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

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

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

FOR WEEK ENDING SEPT. 15, 1887.

Stevens county—J. W. Calvert, clerk.

FILLEY—Taken up by Joseph Ferguson, in Grant tp., August 6, 1887, one sorrel filley, 3 years old, left feet white; valued at \$30.

PONY—Taken up by Robert McQuiston, in Grant tp., August 6, 1887, one dun mare pony, 3 years old, branded R on left hip; valued at \$20.

PONY—By same, one dun mare pony, 8 years old, branded R on left hip; valued at \$20.

MULE—Taken up by J. F. Jenkins, in Grant tp., August 6, 1887, one black mare mule, 10 years old, 14 hands high; valued at \$80.

Marion county—E. S. Walton, clerk.

MULE—Taken up by C. D. Laughlin, in Milton tp., (P. O. Burns), one bay mare mule, 8 to 12 years old, no marks; valued at \$70.

MARE—By same, one gray mare, 16 to 20 years old, no marks; valued at \$10.

COLT—By same, one chestnut sorrel colt, 2 years old, no marks; valued at \$35.

COLT—By same, one bay horse colt, 1 year old, no marks; valued at \$50.

Crawford county—Geo. E. Cole, clerk.

PONY—Taken up by Perry R. Bridges, in Washington tp., August 16, 1887, one light strawberry-roan mare pony, 10 hands high, feet all white to knee joints; valued at \$20.

Coffey county—H. B. Cheney, clerk.

MARE—Taken up by J. T. French, in Spring creek tp., September 7, 1887, one iron-gray mare, 4 years old, white spot on right shoulder; valued at \$40.

Ellis county—Henry Oshant, clerk.

HORSE—Taken up by Franz Brimgardt, in Victoria tp., July 12, 1887, one bay horse, 12 years old, no brands, lame in left hind leg, hind feet white; valued at \$35.

Meade county—W. H. Young, clerk.

PONY—Taken up by John Ristrim, in Meade Center tp., (P. O. Meade Center), August 10, 1887, one bay mare pony, about 14 hands high, branded V on left shoulder; valued at \$25.

Jefferson county—E. L. Worswick, clerk.

2 HEIFERS—Taken up by Thos. J. Long, in Osawakee tp., August 6, 1887, two red and white heifers, ring in right ear of each; valued at \$10 each.

FOR WEEK ENDING SEPT. 22, 1887.

Rooks county—J. T. Smith, clerk.

PONY—Taken up by A. Edson, in Plainville tp., (P. O. Plainville), one chestnut-sorrel mare pony, about 4 years old, white stripes in face, brown chestnut sorrel mane and tail; valued at \$30.

Ellis county—Henry Oshant, clerk.

PONY—Taken up by Nathan Sanders, in Victoria tp., August 15, 1887, one dun mare Texas pony, about 10 years old, marked A with c to left hand upper side on left hip; valued at \$15.

Clark county—J. S. Myers, clerk.

MARE—Taken up by W. M. Friend, in Edwards tp., (P. O. Englewood), July 29, 1887, one bay mare, hind feet white, star in forehead, branded R O on left hip and left shoulder.

Trego county—C. A. Hoar, clerk.

HORSE—Taken up by Joseph Halbleib, in Glencoe tp., August 28, 1887, one dark gray horse, 15 hands high, scar behind ears; valued at \$75.

Atchison county—Chas. H. Krebs, clerk.

COW—Taken up by T. J. Emilen, in Shannon tp., (P. O. Atchison), one red cow, rope around horns, slit in left ear, metal tag with number 33 thereon in under-bit of left ear, about 9 years old; valued at \$30.

FOR WEEK ENDING SEPT. 22, 1887.

Riley county—O. C. Barner, clerk.

PONY—Taken up by Chas. E. Wells, in Sherman tp., one sorrel mare pony, about 14 hands high, hind legs white half way up, branded D on left shoulder.

Wabaunsee county—G. W. French, clerk.

BULL—Taken up by F. McPherson, in Alma tp., September 13, 1887, one red-roan bull, about 5 years old, two slits in each ear; valued at \$20.

Washington county—John E. Pickard, clk.

SOW—Taken up by Geo. Marshall, in Sheridan tp., August 25, 1887, one spotted sow, weight 200 pounds; valued at \$8.

Clark county—J. S. Myers, clerk.

PONY—Taken up by J. S. W. Woodworth, in Englewood tp., (P. O. Englewood), August 9, 1887, one bay horse pony, 4 feet 8 inches high, 12 years old, bald face, both ears split, branded colt's foot on left hip, left hind foot white.

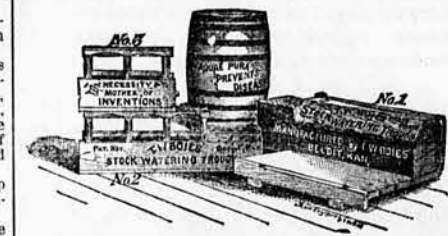
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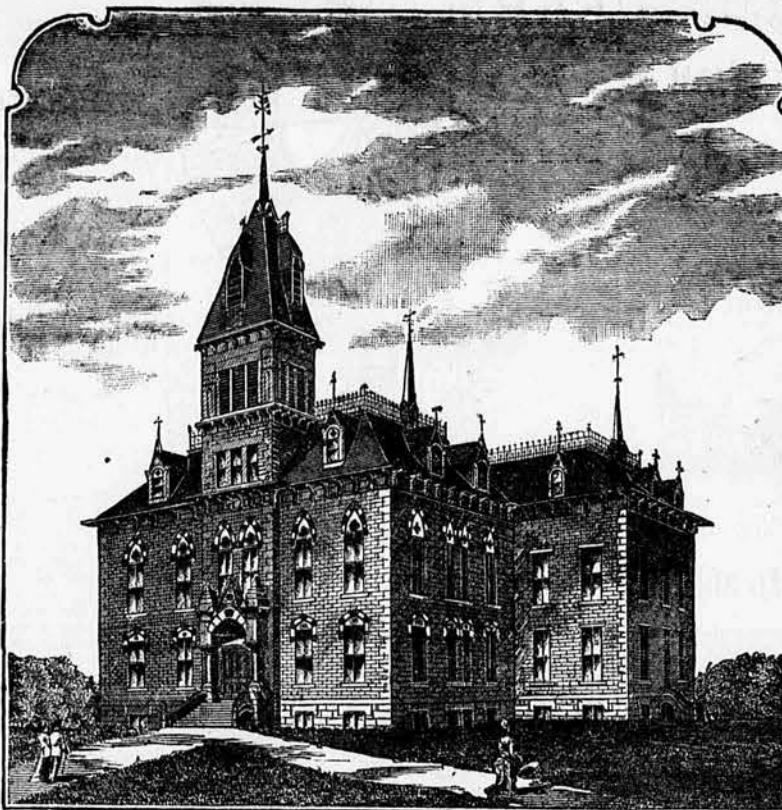
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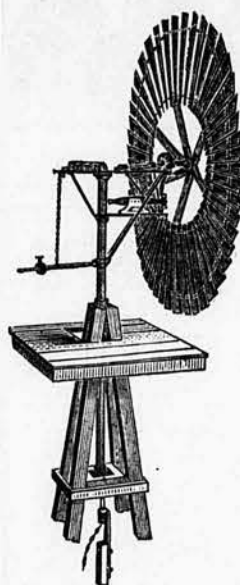
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