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The Stock Interest.

OUR CATTLE INDUSTRY AND ITS FUTURE.

An address made before the Kansas State Board of Agriculture, at Topeka, January 1896, by L. A. Allen, of Kansas City, Mo.

Having been requested by you, through your honorable president, Col. T. M. Potter, and more recently by your honorable Secretary, D. Coburn, to deliver an address on the subject of "Our Cattle Industry and Its Future," noted by me, from its beginning to the present, and to be followed by conclusions in the future, I accepted with pleasure, considering the magnitude of the subject, and consented to be with you on this occasion. Your honorable Secretary stated in his request that what I might say would be helpful to the man in Clark county, likewise to the man in Coffey. Having been very busy up to the first of the year, I did not have time to give the matter to be treated much thought; however, I hope what I have to say will, in a small degree, fit the requirements of what you expected of me.

Cattle have produced more wealth than all the gold and silver mines of the world, and have entered more into the transactions of men since the beginning of the world than anything else. They are spoken of in the Bible as the most useful animals to the people. The ancients regarded them as sacred and they were so regarded for many centuries. The Roman laws limited the number of cattle that should be owned by individuals. Until quite recently cattle (oxen) were the propelling power of the world. They moved the plow and the cart, the material for many of the grandest structures were drawn by them, and they are spoken of as the beasts of burden. The ancient flock-masters, who counted their cattle on a thousand hills, were the wealthiest people in those times. By the older nations of Europe and Asia, cattle were used as mediums of exchange. Rome in its conquest of the world, sent cattle (oxen) forward to assist in opening its roads and highways, all of which centered at Rome, and made it possible for her armies to conquer the then known world. Cattle being regarded as the most valuable property owned by the ancients, settlements between nations and war indemnities were paid with them.

Coming down to more modern times in Europe and other eastern countries, we find that cattle were still of greatest utility to the people, as they had been to the ancients. The ancients, and the people up to a very late period, perhaps not to exceed 150 years ago, had very little idea of improving their cattle and developing the distinct breeds that we now have. This development, and the bringing out of cattle into distinct breeds, was brought about by breeding like to like and following it closely for many generations.

The most pronounced breeds of which we are familiar are the Short-horn or Durham, Herefords and Devons, brought to perfection by the English breeders. The Galloway and Polled Angus, by the Scotch breeders. These being known as the best beef-producing breeds. Among the milk-producing breeds are the Holstein, brought to perfection by the Dutch breeders, and the Jerseys and other like breeds, by the English breeders on the islands surrounding their country.

The earliest settlers of America found no cattle on this continent. Soon after the settlement of this country by Europeans, they began to import cattle from their respective countries. It was not long before cattle became one of the principal sources of wealth of the early settlers. It is said that the immense herds of South America, which spread over that entire country, were the offspring of seven cows and one bull. The exact number of cattle brought from northern Europe by the early settlers is not known. Not only the early settlers of this country, but the people down to a recent date, used cattle as a means of transportation, plowing the soil, and for beef, milk and butter. It is safe to say that cattle were the means of bringing about the

quick development of this country. We find that the early settlers of the Middle States came from the New England and Eastern States over the mountains with ox teams and a little bunch of stock cattle following; and as they settled up the country, others in the same manner pushed forward to the Mississippi and Missouri valleys. And the man who had his wife and babies with him, a good ox team and wagon, necessary bedding, and a few milch cows and calves, considered himself a nabob. This brings us up to about sixty years ago. For the lack of better means of transportation, the surplus beef cattle of the country were bought up by drovers from Eastern cities, and driven overland from 300 to 400 miles to the markets of Philadelphia, New York and Boston. On the roads that these cattle were driven over were convenient feeding stations every fifteen or twenty miles. The usual prices that four-year-old fat steers would net to the farmer in those days was from \$15 to \$18 per head, and the owner that realized \$20 or \$25 considered himself extremely lucky.

This brings us up to a period shortly before our civil war. Steamboats were plying the rivers and railroads were being extended into the Mississippi and Missouri valleys, which greatly facilitated the marketing of fat cattle. A short time before, and during our civil war, the principal market for the cattle west of the Mississippi was for oxen which were used to haul the large trains of wagons crossing the plains, which carried supplies for the miners, military posts and settlers in the mountains and Mexico. The demand for steers used for oxen increased their value from \$20 to \$25 per head. If it had not been for the use of oxen for transportation purposes, it is doubtful whether gold would have been discovered in California for many years after it was. The first settlers that came to Kansas came in ox wagons, with a couple of cows tied behind the wagon. They took up lands, and increased their cattle slowly, but surely. Speculation, and cattle on a thousand hills, never entered their minds.

In 1863 I crossed the plains to the mountains with the first big herd of stock cattle, numbering seven hundred. We went over the old Santa Fe trail. Council Grove, a trading post, was the extreme western settlement. From there on to the mountains we came in contact with the various tribes of Indians then on the plains. At that time the western half of Kansas, so I was told by the Indians, with the greater portion of the Indian Territory, northern Texas, eastern Colorado, western Nebraska, western Dakota and eastern Montana and Wyoming were covered with buffalo. While it has never definitely been known as to the number of buffalo then in the country described, the number was estimated to be from 5,000,000 to 7,000,000. The number surely was very large. I think it would not be overrating to state that I have seen fully 50,000 head in one day's travel on the Arkansas river. Figuring from this and the vast territory that the buffalo ranged over, the estimate placed on the total number would not be too great. It was a difficult task on the part of the emigrants and freighters crossing the plains for several years to keep the buffalo out of their way. A big herd of buffalo crossing the road in front of a train of wagons would not give way until they all crossed. The killing of a few or the report of a gun would not in the least cause them to change their course. Prior to and up to this time, the various tribes of Indians then on the plains almost entirely lived on their flesh, and clothed themselves, as well as built their tepees, out of their hides. At that time there were no railroads west of the Missouri river, and those who crossed the plains never then thought of railroads and settlements being extended or of the buffalo being exterminated, or of the Indians being forced onto the reservations. In 1867-8-9, the Union Pacific and Kansas Pacific railroads were extended to the mountains, and with them came the sportsman, and hunters of the East and Europe. Then the extermination of the buffalo set in. Buffalo hides being valuable at that time, many thousands were killed for their hides and robes alone. Hundreds of men, known as buffalo hunters, were engaged in killing buffalo for what they could sell the hides for. Many thousands were killed by those who wanted to say how many buffalo they had killed. No one's story as to the number he did kill in a day was believed, unless he brought in the tongues. The buffalo were besieged on all sides by the people, and by the Indians of the mountains and Mexico, for their meat and hides. After the railroads were built into the country, many thousands of buffalo were killed for their meat, which was shipped to all the cities and markets of the country. Buffalo meat was offered almost as freely in the markets as beef is to-day. It did not take many years at this rate of slaughter to practically exterminate them. Several wars with the whites and Indians about that time would never have occurred had it not been for the wanton destruction of the buffalo, the Indians' "beef cattle." The destruction of the buffalo on the plains, which was the Indians' main subsistence, caused them to sue for peace, and a readiness to place themselves on reservations set apart by the government. At the present time there is not a herd of wild buffalo on the American continent, unless it is a small bunch in the National or Yellowstone Park, in Wyoming, or in the "Bad lands" of Montana, or a few away north in the British possessions, the total number of which perhaps would not exceed 500.

With the buffalo exterminated and the Indians placed on their reservations, a vast country, reaching from the Rio Grande river on the south to the British possessions on the north, 2,000 miles long by from 500 to 700 wide, was left open for the onward march of civilization, the construction of railroads, the development of the country, the opening of farms, and the establishing of cattle ranches. It had been found by the pioneers that the plains or arid grasses on which the buffalo had subsisted and fattened was a good country in which to raise cattle. The oversupply of cattle in Texas, which had accumulated during the war, was worked off and sent north to new ranges. Stock cattle were gathered up in all the Middle States, with which breeding herds were established in the country west, vacated by the buffalo and Indians.

This was in the early '70's, when the question with them was, "What disposition should be made of their surplus beef cattle." The Texas men began to drive their beef herds north, and the Western owners theirs east. The first cattle brought in found a market at St. Louis, Chicago and New York, and those not suitable for beef, with the farmers of eastern Kansas, Missouri, Iowa and Illinois. Kansas City at the time was only a feeding place and a market in infancy. Owing to the immense herds of cattle that accumulated in Texas, as many as 500,000 to 600,000 in a season were driven to Northern and Eastern markets. Before the war their only market had been New Orleans.

At that time the only railroad extending west from the Missouri river was the Kansas Pacific. These immense herds were driven to points on that road, commencing first at Junction City, then Abilene, Salina and Ellsworth. Shortly after the Santa Fe railroad was extended into western Kansas the Texas cattle trade moved to Newton, then Wichita, Dodge City and Kiowa, and further west and south, as the country became occupied with permanent settlers. Of these, cattle that did not find buyers from the East were driven north and west to supply the different military posts and Indian reservations. About this time the small herds that had been brought from the East by the settlers of Kansas had increased to such a number that they, too, had a surplus to market. As a natural result of the buyers of the East meeting with the owners of cattle from the South and West at Kansas City, a permanent market was established there. While the natural increase of cattle in all the

country west of the Allegheny mountains to the Rockies was not in excess of the demand for beef, and the markets for such were not seriously disturbed until the extra supply of cattle which had accumulated in Texas during the war began to pour north. The hundreds of thousands brought up by the owners of that State, after driving two or three months on the trail and being a long way from home, were compelled to market their cattle in two or three months' time the latter part of the summer and fall each year. This resulted in an oversupply of cattle at the markets, and the cattle were often sold at very low prices, with serious losses to the owners. With the establishment of the market at Kansas City, large packing and slaughter-houses were erected there, which facilitated the disposition of the surplus beef cattle raised in the West and South to better advantage than had previously been done. Owing to a large capital being invested in the slaughtering and packing industry at Kansas City, the owners of these establishments began to hunt consuming markets throughout the East and Europe. About this time the old method of salting beef in barrels was discontinued, and the newer process of canning the beef from inferior cattle, and the cooling of better beef, called dressed beef, in refrigerators, was begun, which enabled them to dispose of their products in the markets of the world. In this connection I desire to say, that had it not been for the packers or some other agency which would have worked up these consuming markets for the distribution of the surplus beef, with the enormous number of cattle forced onto the markets, the cattle industry, under the old plan, would have been paralyzed.

Outside of the financial panic of 1873, at which time the cattle industry, as well as all other branches of business, suffered severely, the cattle trade ran along smoothly up to 1879 and 1880, when large numbers of cattle were forced on the markets and extreme low prices realized. The heavy marketing of cattle all over the country and Europe brought about a shortage in the supply of beef. In 1881 the market for cattle began to advance sharply. In 1882 the highest prices ever known for beef cattle were realized, with the exception of a short time during the war. The high prices paid for beef at that time attracted the attention of European and Eastern capitalists, not only to the cattle trade in the United States but in all other parts of the world. The investment of capital in cattle breeding farms and ranches was greater than at any other time in the history of the cattle industry. Cattle companies were organized with hundreds of thousands and millions of dollars. Stock cattle advanced from \$15 to \$20 per head to \$30 and \$40 per head. This new capital and these new companies bought up nearly all the cattle and grazing lands on the plains and in the mountain valleys extending to the Pacific coast. Not being content with the stock cattle they found then in that part of the country, they bought up all the surplus stock cattle they could in the Middle and Eastern States and sent them West for breeding purposes. To illustrate the extra demand for these Western ranches, 55,000 heifers and cows were taken from Missouri alone in 1882-3; and they went so far as to buy up and ship West the calves from the dairy farms of New York and other Eastern States. The result of this extra demand for stock cattle thinned out the supply in the older States, of cattle that would have been used for beef, thus continuing the shortage and causing the high prices realized for beef. During these years the profits made out of cattle property were greater than ever before in the history of the trade. Many of the large companies declared annual dividends of from 25 to 35 per cent. on their investment. The money stringency of 1884 put a check to further investment of capital in the cattle business. In 1885 the result of this overbreeding of cattle in the United States and Europe began to bring about a surplus of cattle suitable for the markets. Farms and ranches were overstocked;

the owners were compelled to dispose of the surplus cattle, and threw them onto all the markets of the country. The extra increase in the cattle had exceeded the increase in the population and the consuming demand for beef. The following seven years will be recorded as the worst depression in the cattle trade it has ever experienced. Many of the largest ranches were closed out and other herds cut down 25 and 50 per cent., and many 75 per cent. of their former numbers.

This brings us up to 1892, when it was believed by the best informed that the consuming demand for beef in America and Europe had caught up with the supply, and that an era of prosperity for those engaged in the cattle business had set in. The financial panic of 1893 caused greater losses to those engaged in all other branches of business than to those engaged in the cattle business. In 1894 it was whispered all over the country that there was a shortage in the supply of cattle. The short corn and feed crops of that year caused a less number of cattle to be fed than usual, which in the winter of 1894-5 resulted in a strong advance in the price of beef cattle throughout the country, at higher figures than had been realized for many years. This seemed to confirm the whisperings of those who, in 1894, said there was a shortage in the cattle supply. It had been forgotten by those engaged in the cattle trade that cattle were being produced, more or less, in all the States and Territories of the country. Nevertheless, in 1895 there was a general scramble for cattle throughout the country. The plains and mountain valleys were searched far and wide by enterprising dealers for cattle to send to the markets which they had left in the early part of the season when the shortage was on. It so happened that during that year there was one of the best corn and grass crops ever known, and an unusual amount of cheap beef was produced and offered on the markets during the last half of 1895, which resulted in a temporary oversupply of beef and one of the worst depressed markets for fat cattle that had been experienced for years.

The exports of cattle and beef products have generally increased from year to year since 1870. From 1870 to 1880 the exports were principally in live cattle fattened for the export trade. The requirements then were for big, 1,400 to 1,600 pound steers, that had been fed corn six to eight months. Since 1880, with cold storage and refrigerator cars and ships, the exports of dressed beef have largely increased, and with it the greater demand for lighter weight fat cattle than under the old plan. With cold storage the large packing industries have been able to distribute and place large quantities of American beef in the markets of Europe. It has also made it possible to distribute beef in many parts of the United States where hitherto the people had been unable to obtain supplies of fresh beef. The agencies for the distribution of our surplus beef product have been thoroughly worked up and markets established, both in Europe and America. The demand and market for beef in future, like it has been in the past, will be governed by the supply offered. If the feed crops in Europe are good, more beef will be produced there, and the demand from that country for our beef will not be so great. On the other hand, when their feed crops are short, they will take more of our surplus, which will have a tendency to advance prices here. Statistics given by our national Census Bureau show that in 1870 there were in the United States, in round numbers, 40,000,000 population, and 24,000,000 cattle, of which 9,000,000 were milch cows; in 1880, 50,000,000 population and 36,000,000 cattle, of which 13,000,000 were milch cows; in 1890, 63,000,000 population and 53,000,000 cattle, of which 16,000,000 were milch cows. The estimated population for 1895 is 70,000,000, and there is no increase over 1890 in total number of cattle, but a slight increase in number of milch cows, perhaps bringing their number up to 17,000,000. The reason that no in-

crease is figured in total number of cattle since 1890 is on account of the extra large number of cows that had been sold on the markets of the country for beef and canning purposes, and the shortage in the calf crop of the country since 1890.

The number and value of our annual exports of fat cattle and beef products have gradually increased since 1870, varying only on account of the causes stated. The number of cattle so exported in 1895 were about 1,200,000 head, representing a total value of about \$75,000,000.

The excellent quality and healthfulness of American beef has never been disputed by the unprejudiced, but the people of some of the European countries, through prejudice towards the cattle industry of this country, have gone so far as to make laws preventing the importation of American meats, claiming that our cattle were infected with disease. To this our national government and people protested, knowing that it was only a subterfuge to prevent the consumers of beef in those countries from using our beef, and compel them to pay high prices for their home product, or go without beef. When this question began to be agitated, fifteen or twenty years ago, and knowing that our people were large importers and consumers of many manufactured articles of those same countries, I then strongly advocated the idea of retaliation, and wrote something for publication on the subject. In short, it was, if those countries did not want our meats, such as our people used, we, in turn, did not want their surplus manufactured stuff. I still hold to the idea.

We are apt to think that some other business, or that those engaged in other parts of the country in the cattle industry, are doing better than we are. We find on looking back a few years ago, before the war and the advent of railroads into the West and Southwest, that many thousands of cattle were killed in Texas and California for their hides and tallow alone; and at the present time in South America and Australia hundreds of thousands of cattle are killed for the same purpose, and their carcasses left to waste. Very recently, a gentleman, one of the largest cattle owners in Australia, was in this country endeavoring to make arrangements with the owners of some of the large dressed beef and canning establishments to locate plants in Australia, but without avail, for the reason of the remoteness of that country from the consuming beef centers of Europe and America. The markets for meats already worked up by the enterprising slaughterers and handlers in this country almost cover the entire world. Beef from Kansas City, in one form or another, can be found in the principal markets of Europe. Many of the armies and navies are supplied with canned beef from Kansas City. There is not a ship that sails the high seas that does not use canned beef which was produced on the broad prairies west of the Missouri river. If we feed the greater portion of the world with beef it seems we should be content. With the foreign and domestic consuming markets worked up, is it not reasonable to suppose that the demand for fat cattle and beef will continue? The ratio of increase of population in the United States within the last few years, is in advance of the increase in cattle, which is an encouraging feature to those engaged in the cattle industry, and assures its permanency on a better foundation than hitherto.

This brings us up to the present time, and the great question now is, with those engaged in the cattle industry of this country, "What should they do to make their business profitable?" There is no general rule by which to be governed unless it is by the experience of the past. In my opinion, handlers and breeders of cattle should not govern their future transactions by what they have done in any one or two years in the past, but I would ask them to consider, for their future guidance, what has been the result on an average in their last ten years in handling cattle. It is fair to presume that the free and unusual marketing of cattle for the past ten years has greatly dimin-

ished the supply, until it is believed that the increase in population and consuming demand for beef, has, or will in the near future, equal the supply. It is a well-known fact that the Eastern and Middle States are not raising the supply of cattle they did some years ago. They depend more and more every year for their supplies of beef cattle from the West, where they can be raised more cheaply than in those States.

(To be concluded next week.)

Bisulphide of Carbon for Prairie Dogs.

EDITOR KANSAS FARMER:—Replying to A. F. Waugh's inquiry in last week's FARMER, would say, that I have had excellent success in destroying prairie dogs with bisulphide of carbon, having cleaned out two villages on my own farm.

Use about a tablespoonful to each hole, poured upon something round, so that it will roll as far down in the hole as possible. A short piece of corn-cob will do, but a small ball of old rags or cotton batting is better. I have always stopped the holes with earth after putting in the "dose," but this may not be necessary, as the vapor is heavier than the air, and sinks to the bottom of the hole. If the hole is stopped you will know the next day how successful you have been, as the dogs, if alive, will have dug their way out.

I have sometimes noticed that when the inmates of a hole had been killed, some of their neighbors, who have escaped, would come and dig into the stopped holes, apparently trying to help them out.

It will sometimes happen that the first dose will not be sufficient, in which case try again.

Tescott, Kas. THOS. B. SEARS.

Strychnine for Prairie Dogs.

EDITOR KANSAS FARMER:—I can sympathize with A. F. Waugh, of McPherson, and will try to help him out. I had twenty-five acres of prairie dogs and tried various schemes to destroy them, to little or no effect.

I tried bisulphide of carbon. It was expensive and slow work. I could not get all over the twenty-five acres in one day, and when I returned to work the next day, many of the holes that I had placed carbon in and filled up were dug open and the cotton scattered about the prairie, but I persevered and the dogs just laughed at me.

I then got two one-eighth ounce bottles of strychnine; had the druggist pulverize thoroughly, put it in an iron pot with one and one-half gallons of water. I added two or three spoons of sugar, and boiled it (it seemed hard to

dissolve). When all is dissolved take off the fire and put in as much shelled corn as will absorb all the water. The next morning I took this to the pasture and dropped from four to six kernels in each hole. The next day I went to see the effect of this treatment, and found eight dead dogs on top of the ground, but I don't think that one in a hundred came out to die. I immediately went over the pasture again and put more corn in the holes. I killed every one. This was done in the early spring, before there was anything green for them to eat. I think warm days in the winter would do just as well. They rustle whenever the weather is warm, and do not hibernate.

Salina, Kas. L. F. PARSONS.

A Prescription for Prairie Dogs.

EDITOR KANSAS FARMER:—I saw in your paper that A. F. Waugh wanted to know some way to get rid of prairie dogs. I will give a recipe that is a dead shot on these pests. Three parts cornmeal, one part of granulated sugar, mix with water so that it can be molded up in little pieces one-half as large as bulled hickory nuts. Feed this three days, and the fourth day add one-eighth ounce of strychnine, crystallized. Prairie dogs have a taste for granulated sugar. February is the month to give this to them. I gave one dose to the dogs, and picked up twenty-six outside of their holes at one time.

Nashville, Kas. J. M. BAKER.

Sorghum for Forage.

EDITOR KANSAS FARMER:—In answer to W. M. Risdon, will say that my experience is that sorghum is the best food to produce an abundant flow of good milk. The milch cow never ought to be allowed to eat any sorghum seed, as the seed will cause the cow to "dry up." Kaffir corn fodder is good, but not so good as sorghum. The best variety of sorghum to produce an abundant flow is the Collier, a variety that is very rich in sucrose, sometimes containing 22 per cent.

I. W. STOUT.
Medicine Lodge, Kas.

Black Rice Corn.

EDITOR KANSAS FARMER:—I enclose you one dollar bill on my subscription. I wish you would let me know, through the FARMER, where I can get that black rice corn which you gave a cut of in the last FARMER.

C. E. PAXTON.
Belle Plaine, Kas.

—Black rice corn seed is advertised by F. Barteldes & Co., Lawrence, Kas.

Turning These Days Into Money

Days with nothing special to do. It is easy enough to make them profitable.

Any Boy Or Girl Can Do This

By representing the leading magazine for the home, THE LADIES' HOME JOURNAL. An easy way for every boy and girl in the country to earn money.

Write about the plan to

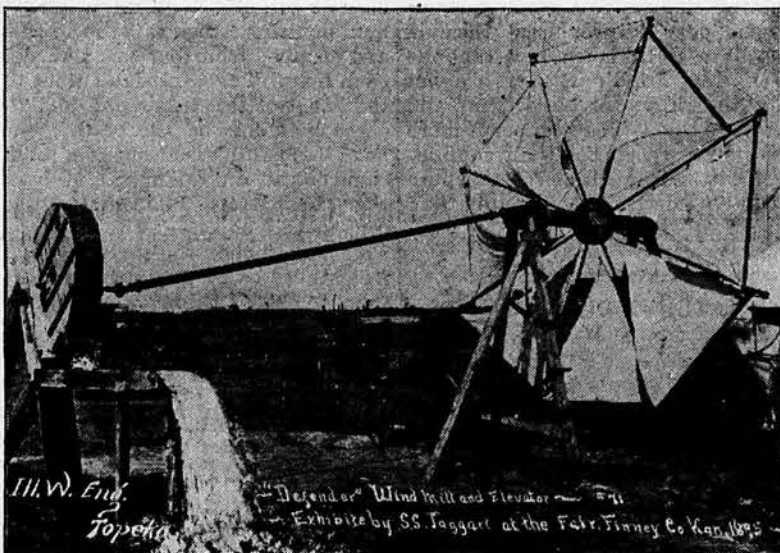
The Curtis Publishing Company

Philadelphia, Pennsylvania

Irrigation.

The "Defender."

The following is a description of the sail mill and elevator made by S. S. Taggart, of Garden City, and exhibited at the Finney county fair last fall, the engraving being made from a photograph taken by H. L. Wolf, Garden City's photographer. The elevator box is sixteen feet in length, for a well twelve feet deep, made of 2x6's jointed true. At the lower end is a pulley one foot in diameter, at the top a belt wheel consisting of an old mower wheel with teeth knocked off. The shaft is two and a half feet long by one and a half inches diameter with forked end in a ring to form knuckle, and is attached to shaft of mill by a tumbling-rod. The belt is made of five thicknesses of canvas sewed in three seams, is five and a half inches wide and fits snug in box. The flights are same width, four inches deep and one foot apart. Each thickness of belt painted with white lead and oil. A slide at each side of pulley with wedge on outside is used to stretch belt. A casing covers belt wheel. In a good wind, the "Defender" threw thirty-six inches of water, miner's measure, a little over 25,000 gallons per hour, gauged at end of discharge trough. The tower is of 4x4's twelve feet long, in shape of an "A," and two and a half feet in ground with a cross piece anchor, both ends of tower braced. The shaft is twelve feet long, 6x6, with two circular planks in the middle to receive arms of wheel.



THE "DEFENDER" WINDMILL.

Eight arms eight feet long make a sixteen-foot wheel. The arms are held firm by guy wires. Two No. 9 wires are twisted together, then separated at intervals of six feet sufficiently to receive end of arm, a wire-stretcher in last space drawing it taut. Sails are heavy canvass, cut to almost a right angle triangle, six feet long at bottom, seven feet on loose side, six on the other, which is fastened to arm in four places. A boom holds sail taut at outer end. Sails fastened with snaps. A pair of iron thimbles imbedded half their depth in top of tower, cap same, bolted, forms axle for wheel. End of spindle has piece of iron riveted on each side to form knuckle for tumbling-rod. A wooden pulley on end of wheel shaft with one and a quarter inch rope forms brake to stop wheel. This elevator and mill is not patented.

Opera singers and public speakers can keep their voices clear and strong with the family remedy, Dr. Bull's Cough Syrup.

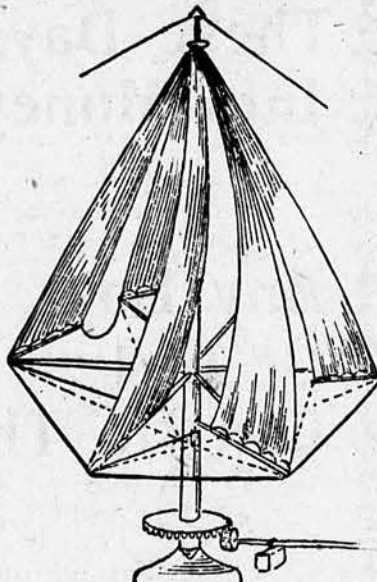
Money Easy Made by Hustlers.

Dear Editor:—My experience may interest others who need money. Fifteen years clerking, farming, hustling, trying to sell books, wringers and every contrivance made me discouraged and mad when I met my cousin in Iowa making \$45 a week, plating tableware and jewelry. I got a complete outfit from Gray & Co., Columbus, O. They send materials, instructions, receipts, trade secrets, and teach the agent, and have treated me elegant. I plate gold, silver, nickel and white metal, get all the knives, forks and other goods I can plate; make from \$45 to \$75 per week plating and sell some platers besides. Any one can get a good plating outfit by writing them.

J. RYAN.

A Novel Wind Engine.

A new and interesting invention of this class is brought to the New York Tribune's attention by W. F. Ross, of Niles, Mich. He calls it a



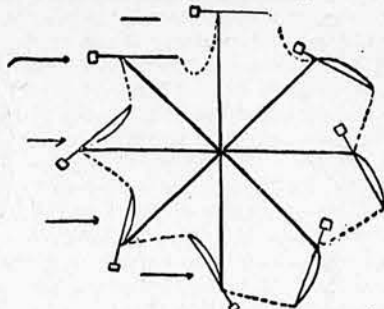
ROSS WIND ENGINE.

It differs in shape, material and other respects from the familiar windmill. Mr. Ross declares that it is not only cheaper, but more powerful.

Around an upright pole a set of six or eight triangular sails is made to revolve horizontally, thus rotating a huge cog wheel and conveying their power through gearing to a horizontal shaft. The sails would each be about thirty-two feet high, pointed at the top, and eight feet wide at the base.

The boom to which each one would be secured at the bottom would be a separate stick from the "sailarm." The latter would be sixteen feet long and the boom pivoted to its outer end, so as to swing, such oscillation being facilitated by a sort of counterpoise. Short ropes and chains, corresponding to the "sheets" of a yacht, would limit the amount of this motion, however. Our first illustration gives a side view of the device, and the second a ground plan.

Mr. Ross has not yet tried his scheme on a large scale, but he believes that it would develop twenty or twenty-five horse-power in a good breeze. Perhaps this is too liberal an estimate, but if this expectation should be half realized a farmer having such a wind engine would have power for other uses than pumping—grinding, threshing, churning, and so on. Indeed, he could run a dynamo, also, and, with a storage battery to equalize the supply, light and heat his house electrically.



Mr. Ross' estimate of the total outlay for such a mill at the start is forty or fifty dollars. Once built, the repairs, which time and wear would render necessary would not be expensive. A patent has been applied for on this device.

TO SUM IT ALL UP



THE Rock Island CORN PLANTER

has more good features than can be found in any other three on the market. Send for circular and find out all about it before concluding what to buy for 1896. Rock Island Plow Co., Rock Island, Ill.

12 PACKAGES—Tested, pure, fresh SEEDS, postpaid, 12c. R. N. Thomas, Shenandoah, Iowa.

1000 ASH \$1. All leading sorts. Cherry, 3 to 4 feet, \$15. Black Locust and Osage Hedge at about same price. Complete Price List FREE. JANSSEN NURSERY, Jansen, (Jeffers Co.), Neb.

Evergreens and Forest Trees

At \$1 per 1,000 and upwards. Price list free. Address C. A. COCAINE & CO., Wis. Mention FARMER. Sawyer, Door Co., Wis.

Litson & Nursery.

Fruit trees, Berry plants, Evergreens and Ornamental shrubbery at wholesale to the planter. Write for free price list. W. H. LITSON, JR., Nevada, Mo.

ALLIANCE Seed House, GOVE CITY, KAS. is acknowledged by all to be the cheapest reliable source of seed. Prices 2 to 3 cents each; other seed cheap in proportion. FREE sample packet sent on receipt of stamp. Catalogue free to all. Give us a trial.

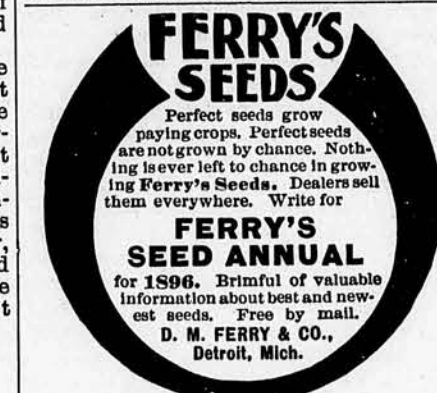


Choice Standard and New Varieties grown and stored in the Cold Northwest. Send for handsome illustrated Catalogue, containing article describing method of raising and handling. Small shipments at car-load freight rates. Samples free. E. W. Allen, Wolverton, Wilkin Co., Minn.



SOIL MOISTURE!

HOW BEST TO CONSERVE IT. Send us your name and address, mentioning the paper in which you saw this advertisement, and we will send you a pamphlet giving our own experience, together with the experience and conclusions of fifty more of the best farmers in Nebraska and Kansas. Also our wholesale price list of choice FRUIT TREES, plants and ornamentals. Address YOUNGERS & CO., Geneva, Neb.



THE PREMIUM ENGINE At Garden City Fair. IRRIGATION MACHINERY. If you want the most practical, efficient and cheapest irrigation pumping machinery, write for catalogue of Centrifugal and Triplex Pumps, Engines, Boilers, Gasoline Engines, etc., to IRVIN VAN WIE, 717-726 W. Fayette St., SYRACUSE, N. Y.

MONEY FOUND

By buying from us. If you want fruit trees, roses, shrubs, etc., drop us a line (do it now) and we will send you free, our 1896 catalogue. Its full of all the choicest kinds. Globe Nursery Co., Rochester, N. Y.

Choice Early Seed Potatoes!

For sale, the following varieties: Early Kansas, Early Ohio, Early Rose, Early Beauty of Hebron. Potatoes good size and sound. Sixty cents per bushel in barrels or sacks, delivered to railroad depot here.

Address EUGENE R. HAYES, Topeka, Kas.

NORTH DAKOTA SEED POTATOES

We can furnish choice North Dakota Grown Seed Potatoes in any quantities wanted. EARLY OHIO, ROSE, etc. Write us.

MAGILL & CO., Fargo, N. Dakota.

FOR SALE!

Choice Varieties of Best Early SEED POTATOES.

Early Six Weeks.....70c. per bushel
Early Kansas.....70c. per bushel
Early Ohio.....65c. per bushel
Early Beauty of Hebron.....65c. per bushel
Early Rose.....65c. per bushel
Burpee's Superior.....65c. per bushel

All the above varieties good size and sound, in sacks or barrels, delivered to any railroad depot here.

Address TOPEKA PRODUCE CO., 304 Kansas Ave., TOPEKA, KAS.

250,000 Peach Trees

100,000 Plum best Eup. and Jap.
150,000 Pear Std. and Dwl.
75,000 Cherry, Morellos, Hearts, etc.
150,000 Apple, Quince, Apricot.
100,000 Nut Bearing Trees.
2,000,000 Small Fruits and Grapes.
750,000 Roses, Everblooming & Hardy.

1,000 Car Loads Ornamentals.

Full supply Flower and Vegetable Seeds, Plants, Bulbs, etc. Elegant 168 page catalogue free. Send for it before buying. Everything mail size postpaid. Larger by express or freight. Safe arrival and satisfaction guaranteed. We occupy 1 1/2 miles on the bank of Lake Erie. No harder, healthier trees are grown on the continent. Why not procure the best direct from the grower and avoid all commissions. It will save you money.

42nd YEAR. 1000 ACRES.
29 GREENHOUSES.
THE STORRS & HARRISON CO., PAINESVILLE, O. Box 158

IRRIGATED LANDS IN COLORADO

Under the Bessemer Irrigating Ditch.

A rare opportunity to acquire attractive and profitable Suburban Homes, in tracts of from five acres upward, with perpetual water right and suitable for Market Gardening, Fruit Culture, Dairying, Hog and Poultry Raising, Grain and Alfalfa Farming. Location two to eight miles from Union Depot at the City of PUEBLO, the growing manufacturing center of Colorado, with 35,000 inhabitants and five great railroads. Profitable home market; absolutely sure crops; delightful climate and all social advantages.

Write for information to C. B. SCHMIDT, General Agent, The Suburban Land and Investment Co., PUEBLO, COLO.

DRAIN TILE

W. S. DICKEY CLAY MFG. CO.,

20th and Main Sts., Kansas City, Mo.

IRRIGATION.

The WITTE ALWAYS TAKES FIRST PREMIUM.

The only engine for successful IRRIGATION. Can be used for feed-grinding, shelling, etc.

WE GUARANTEE RESULTS!

WITTE IRON WORKS, Kansas City, Mo.

IRRIGATION MACHINERY.

If you want the most practical, efficient and cheapest irrigation pumping machinery, write for catalogue of Centrifugal and Triplex Pumps, Engines, Boilers, Gasoline Engines, etc., to

IRVIN VAN WIE, 717-726 W. Fayette St., SYRACUSE, N. Y.

Learn From the Danes.

Why did Denmark send to the United Kingdom last year 86,000,000 pounds of pork and 97,000,000 pounds of butter, exporting over \$28,000,000 more of farm products than it imported in a corresponding period? This little country supplies more pork to the United Kingdom than all the other countries of Europe combined; in that item she is next to the United States. Two reasons for this are foremost in our mind. First—The Danes are rigidly careful as to the quality of their bacon and butter. Second—The Danish government keeps two able and experienced commercial agents in England, one at London and the other at Manchester, whose especial business it is to look after the Danish trade and afford all assistance possible to Danish shippers. Would it not richly pay the United States government to inaugurate something of this kind for our producers?—*Hoard's Dairyman.*

Publishers' Paragraphs.

If you are going to plant evergreens next month, write to C. A. Cocagne & Co., Sawyer, Door county, Wisconsin, for his free catalogue.

Macmillan & Co., New York, have just brought out the most complete treatise on the "Spraying of Plants" yet published. It is by Prof. E. G. Lodeman, instructor in horticulture in Cornell University, and is a book of 399 pages, giving the fullest up-to-date information on the entire subject of spraying. The book should be in the hands of every gardener and fruit-grower. It is well bound in cloth-covered boards and is sold at the reasonable price of \$1, for which it will be sent postpaid by KANSAS FARMER.

The Currie Windmill Co., Manhattan, Kas., have a neat advertisement in this issue, of their windmills and Kaw feed grinders. There are no more popular goods made. The Kaw feed mill will grind ear corn, shelled corn, kafir corn, wheat, oats, rye, barley, cane seed, and broomcorn seed. The Currie Bros. claim that the Kaw is the only feed mill that has a diamond double cut grinding-bar, especially valuable for kafir corn, wheat, etc. If you want a feed mill suitable for this country, write these advertisers.

If you are in want of vegetable or flower seeds, plants or bulbs, shrubs or roses, grape vines or small fruits, fruit or ornamental trees, or in fact anything in the seedsmen, florist or nursery line, the Storrs & Harrison Co., Painesville, O., will be pleased to send you their valuable catalogue free. They have been in business over forty years and are reliable and responsible. In connection with their nursery of a thousand acres they have twenty-nine greenhouses and have an immense plant and seed mail trade extending to every State and Territory in the Union.

Millions of Gold

In sight at Cripple Creek, Colo. Only twenty-three hours from Topeka by the Santa Fe Route, the only broad-gauge route passing right by the "Anaconda" and all the famous mines. See the nearest Santa Fe agent for all particulars, or write to Geo. T. Nicholson, G. P. A., Chicago, Ill., or W. J. Black, A. G. P. A., Topeka, Kas.

High Price for Potatoes.

The John A. Salzer Seed Co., La Crosse, Wis., pay high prices for new things. They recently paid \$300 for a yellow rind watermelon, \$1,000 for thirty bushels new oats, \$300 for 100 pounds of potatoes, etc., etc. Well, prices for potatoes will be high next fall. Plant a plenty, Mr. Wideawake! You'll make money. Salzer's Earliest are fit to eat in twenty-eight days after planting. His Champion of the World is the greatest yielder on earth and we challenge you to produce its equal.

If you will send 10 cents in stamps to the John A. Salzer Seed Co., La Crosse, Wis., you will get, free, ten packages grains and grasses, including teosinte, spurry, giant incarnate clover, etc., and our mammoth catalogue. Catalogue alone 5 cents for mailing.

Millions of Gold

In sight at Cripple Creek, Colo. Only twenty-three hours from Topeka by the Santa Fe Route, the only broad-gauge route passing right by the "Anaconda" and all the famous mines. See the nearest Santa Fe agent for all particulars, or write to Geo. T. Nicholson, G. P. A., Chicago, Ill., or W. J. Black, A. G. P. A., Topeka, Kas.

Preparing Land for Onions.

Onions succeed better on old land which has produced this same crop, than any other soil. This is because the land is in good tilth—an indispensable requisite for this crop. But with the "ACME" Pulver-

izing Harrow, Clod Crusher and Leveler, any soil may be brought quickly into the best condition for onions. It straws and turns over the surface as deeply as is necessary in the most perfect manner, and when the land is crossed it will be as fine as a garden bed. It has been said by farmers who have used the "ACME" that it dispenses with hand raking. Of course this thorough tillage insures the destruction of the weeds, which is another important requisite for the onion crop. See advertisement on page 14.

A Splendid Business Offer.

The FARMER takes pleasure in calling the attention of its readers to Perine's subsoil plows. That subsoiling is no longer an experiment has been satisfactorily proven and demonstrated. Mr. A. B. Perine, of this city, is the inventor, manufacturer and patentee of the original Perine's subsoil plow. No higher compliment could be attributed to the popularity of the plow, than the fact that other plow companies are trying to profit from its success, by attempting to imitate Mr. Perine's invention. During the months of February, March and April, 1895, Mr. Perine was not nearly able to supply the demand for his plows, and present indications are that he will experience another rush this season. He has enlarged his plant and secured additional machinery. But as a special inducement for early orders he will include a year's subscription to either the KANSAS FARMER or Topeka Advocate to those who will purchase a plow before February 15, 1896.

The prices of the genuine Perine subsoil plows are as follows:

No. 1 plow, for four horses.....	\$12.00
Extra points.....	2.25
No. 2 plow, for three horses.....	11.00
Extra points.....	2.00

Address all communications and make remittances payable to

PERINE'S PLOW WORKS,
Topeka, Kas.

Millions of Gold

In sight at Cripple Creek, Colo. Only twenty-three hours from Topeka by the Santa Fe Route, the only broad-gauge route passing right by the "Anaconda" and all the famous mines. See the nearest Santa Fe agent for all particulars, or write to Geo. T. Nicholson, G. P. A., Chicago, Ill., or W. J. Black, A. G. P. A., Topeka, Kas.

Beware of Ointments for Catarrh that Contain Mercury,

Mercury will surely destroy the sense of smell and completely derange the whole system when entering it through the mucous surfaces. Such articles should never be used except on prescriptions from reputable physicians, as the damage they will do is ten-fold to the good you can possibly derive from them. Hall's Catarrh Cure, manufactured by F. J. Cheney & Co., Toledo, Ohio, contains no mercury, and is taken internally, acting directly upon the blood and mucous surfaces of the system. In buying Hall's Catarrh Cure be sure you get the genuine. It is taken internally and is made in Toledo, Ohio, by F. J. Cheney & Co. Testimonials free.

Sold by Druggists, price 75c. per bottle.

THE STRAY LIST.

FOR WEEK ENDING JAN. 30, 1896.

Doniphan county—W. H. Forncrook, clerk.

MARE—Taken up by Harman Redar (P. O. Wathena), October 12, 1895, one bay mare, sixteen hands high, 9 years old, scar on left hind leg and scar on right fore foot, no other marks or brands.

FOR WEEK ENDING FEB'Y 6, 1896.

Riley county—James R. Young, clerk.

HEIFER—Taken up by Fred Meyer, in Zeandale tp. (P. O. Zeandale), December 30, 1895, one black and white yearling heifer, no marks or brands; valued at \$12.

Shawnee county—Chas. T. McCabe, clerk.

MULE—Taken up by Aaron Caberly, in Monmouth tp., one black horse mule, 7 years old; valued at \$30.

FOR WEEK ENDING FEB. 13, 1896.

Cherokee county—T. W. Thomason, clerk.

TWO MULE COLTS—Taken up by J. E. Lowe, in Spring Valley tp., two dark brown male mule colts, 1 year old; valued at \$20.

TWO MARE COLTS—By same, two dark bay mare colts, 1 year old; valued at \$20.

IF YOU HAVE A

Wheel in Your Head

We can work it out for you. We make Patterns, Models, Castings, etc.

TOPEKA FOUNDRY.

Cor. J. and Second Sts., Topeka, Kas.

ARE YOU A HORSE OWNER?

If your dealer does not handle Cork Faced Horse Collars, write us; we've something to say in regard to them.

Cork-Faced Collar Co., Lincoln, Ill.

THOMPSON'S GRASS SEEDER
Sows all varieties of Grass, Timothy, Alfalfa, Red Top, Flax, and ALL KINDS OF GRASS SEEDS.
HOPPER for OATS—WHEAT.
Send for Catalogue.
O. E. Thompson & Sons,
23 River St., Ypsilanti, Mich.

Trumbull Seed Co., Gen. Agents, Kansas City, Mo.

Market Gardeners Recommend

Mathews & New Universal Model Hand

Seeding and Cultivating Implements

A dozen styles. Latest Designs. THE BEST Goods

Only combination One and Two Wheeler made. One wheel for seeding insures most finished work. Write for circulars and address of nearest supply depot.

AMES PLOW CO., Boston & New York.

Sole Makers.

It has 128 pages, is printed on fine book paper, it has hundreds of illustrations—wood cuts, zinc etchings. Its reading matter is interesting, as much so for a man as a woman, and the children also are not neglected

The mere sitting down and writing for it will secure it for you FREE. Do you want it? If so, send your name and address to

EMERY, BIRD, THAYER & CO.

Successors to

Bullene, Moore, Emery & Co.

KANSAS CITY, MO.

Uncle Samuel is Out Again With His Blandest Smile.



It pains him to punish the "Baby," but makes him smile when he realizes the great benefit that comes to the dairy public thereby.

The "Baby's" parents attempted to make the public believe that their "Baby" was the only baby that had a right to live, and advertised extensively, pretending the United States Court had so decreed. But such were not the facts.

Uncle Samuel's Baby

is the healthiest, strongest, prettiest and best behaved, and because of these qualities is most loved and sought after.

Read the statements of the "Baby's" parents, "important Decrees and Injunctions in Cream Separator Litigation," scattered broadcast to frighten people who prefer the United States on its merits. Then read the statements, below:

SAMUEL HOTCHKISS, the Inventor and Manufacturer of the Claimed Infringement, Now Uses the United States.

The De Laval Separator Company brought suit against me for manufacturing, using and selling the Omega Cream Separator, claiming it to be an infringement of their Alpha Separator patent. My attorneys assured me that such claims for infringement could not be sustained if contested, but the suit would be expensive, and as I had no money to waste on such a contest, I let the case go by default. I am now using the IMPROVED UNITED STATES SEPARATOR, and all my patrons using Separators who came under the injunction of the court restraining them from using the Hotchkiss Separator have purchased and are using the Improved United States Separators with the greatest of satisfaction. We all consider them the best Separators ever put upon the market.

Downsville, Delaware Co., N. Y., December 30, 1895.

SAMUEL HOTCHKISS.

JOHN HOUSTON, the Enjoined User, Perfectly Satisfied of the Superiority of the United States.

Since the United States District court issued an injunction forbidding me using the Hotchkiss Omega Cream Separator, I have purchased and am using the IMPROVED UNITED STATES CREAM SEPARATOR, which I find very much superior to the Hotchkiss, and which is not equaled, in my opinion, by any Separator on the market. I have used the De Laval Separator for several months, and consider the United States far superior in every respect, and a perfect skimmer.

Downsville, N. Y., December 30, 1895.

JOHN HOUSTON.

STATEMENT OF THE LARGEST MERCHANT IN DOWNSVILLE.

The statements made by Samuel Hotchkiss and John Houston, in reference to the purchase and use of the IMPROVED UNITED STATES CREAM SEPARATORS are correct.

The United States Cream Separators are now used by those formerly using the Hotchkiss Separators, and are giving better satisfaction than any separator on the market. I have not had one complaint, and have placed nearly twenty machines in thirty days.

Downsville, Delaware Co., N. Y., December 30, 1895.

C. E. HULBERT.

SEND FOR ILLUSTRATED CATALOGUES.

Vermont Farm Machine Co., Bellows Falls, Vt.

The Home Circle.

To Correspondents.

The matter for the HOME CIRCLE is selected Wednesday of the week before the paper is printed. Manuscript received after that almost invariably goes over to the next week, unless it is very short and very good. Correspondents will govern themselves accordingly.

A CONSERVATIVE.

The garden beds I wandered by
One bright and cheerful morn.
When I found a new-fledged butterfly
A-sitting on a thorn.
A black and crimson butterfly
All doleful and forlorn.

I thought that life could have no sting
To infant butterflies.
So I gazed on this unhappy thing
With wonder and surprise.
While sadly with his waving wing
He wiped his weeping eyes.

Said I, "What can the matter be?
Why weepest thou so sore?
With garden fair and sunlight free
And flowers in goodly store?"
But he only turned away from me
And burst into a roar.

Cried he, "My legs are thin and few
Where once I had a swarm!
Soft, fuzzy fur—a joy to view—
Once kept my body warm—
Before these flapping wing-things grew
To hamper and deform!"

At that outrageous bug I shot
The fury of mine eye!
Said I, in scorn all burning hot,
In rage and anger high,
"You ignominious idiot!
Those wings are made to fly!"

"I do not want to fly," said he;
"I only want to squirm!"
And he dropped his wings dejectedly,
But still his voice was firm;
"I do not want to be a fly!
I want to be a worm!"

O yesterday of unknown lack!
To-day of unknown bliss!
I left my fool in red and black;
The last I saw was this:
The creature madly climbing back!
Into his chrysalis.
—Charlotte Perkins Stetson.

A VALENTINE THAT WORKED.



HERE had been a lover's quarrel between Clay King and his sweetheart, Susie Markham. The two had grown up together in the village of Sterling and had been playmates from babyhood. How they had loved each other they couldn't tell themselves. The tenderness had grown upon them until it had become a grand passion, much as the tiger gradually gains its ferocity from the harmless playfulness of a cub.

It was said that Clay's mother and Susie's father had been sweethearts in the old time, but had been separated by some little act of pique on the girl's part that had been taken too much to heart by the young man, who tore himself away from home and did not return until it was too late.

Perhaps a ghost of the old love still haunted them, and perhaps it was because of this that the love between Clay and Susie had been cultivated by the parents.

At any rate their course of true love had run on smoothly enough until the foolish little quarrel had made a breach that widened as the weeks went by.

At a "party" one evening, in early winter, at the house of Dr. Bronson, rector of the little Episcopal chapel in the village, Susie had flirted desperately with Sam Jackson, in Clay King's very face.

Anyone but the blindest kind of a lover could see that Sue was doing that for sheer mischief. She was as nervous about it as a timid yet proud man is in going into battle. She laughed in a trembling sort of way, and laughed too much. She pretended to ignore poor Clay, almost altogether, and yet she was watching him, askant, with all the eagerness of a zealous detective, who, in disguise, is spotting his culprit in a crowd.

During the evening, and it was late, Clay lying in wait, obtained an opportunity to speak with Sue alone, yet there were persons about them and within earshot. He upbraided her about her heartless treatment of him, as he put it, and suggested something concerning Sam Jackson's unworthiness.

She knew, as well as Clay did, that Jackson was cautiously dissipated, for that was an open secret in the village, and she knew that he was of low extraction and of brutal instincts, though

handsome and well-dressed, and endeavoring to win his way, socially, to a better place than any of his people had ever reached, so far as two or three generations of Sterlingites had known.

Just as any other spirited girl would have done, under the circumstances, Miss Sue resented the "interference," as she was pleased to term Clay King's expostulations, and in the warmth of all made a cutting defense of "black sheep" Jackson's character and general eligibility. So, with the self-sought wound that foolish Clay King had obtained, he recoiled with pain when a partner at that moment claimed Susie for a waltz, and she whirled away.

It has been said that of all fools an old fool is the worst, but this is so far wrong that there is no good ground for comparison between any sort of an old fool, that knows enough to go in out of the rain, and a piqued young man in love.

Otherwise Clay King would have seen through the pranks of his adored and adorable Sue, and paid no attention to them whatever.

Even an old fool would have done that, but a young man in love—never!

The next foolish thing that this deeply-troubled and love-blinded young man did was to steal away to the hall, secure his hat and overcoat in an almost surreptitious manner, and then glide out the door unseen, to wade through new-fallen snow knee-deep to his own home.

On the following morning, having made some ingenious excuse for it, Clay King boarded a forenoon train for the city, nearly 200 miles away, where a paternal uncle was the head of a great mill-machinery manufacturing firm, and with him, shortly after his arrival, Clay engaged to learn the art of salesman of such machinery, especially among the mill-owners of the great lumber districts of the gulf states.

With a peculiar adaptability to the work, Clay King "caught on to the system" with a suddenness truly astonishing. He applied himself energetically to it under the guidance of an old expert, and was within the next few weeks trusted to work alone in his new field.

There was a sensation in the village of Sterling when Clay King's absence became known. Its cause was the gossip of society, and Sue Markham was voted a heartless flirt. Sue became an exceedingly sober-faced young lady, and Sam Jackson learned, upon his



next meeting with her, from that indefinable manner that even giddy young ladies have when they get very much in earnest, that a large area of space between himself and Miss Susie Markham was his safest locality.

Clay's mother kept her own counsels and did some strong thinking. She was as kind and gentle with Sue as ever, and Sue's love for her grew stronger.

It was the night of the 10th of February, when leaving a train at a station in the city, that by a slip upon the icy platform Clay King fell and was lifted up to discover that he had accumulated a fracture of the left forearm.

Being thus incapacitated, he was sent home for the care that can only be obtained in that love-stored place, and on the night of the 13th he was safely ensconced within the blessed abode, surrounded by all the tender attentions it affords.

St. Valentine's day came in through

Highest of all in Leavening Power.—Latest U. S. Gov't Report

Royal Baking Powder

ABSOLUTELY PURE

Sue Markham's window as bright as the smiles of angels, and the morning mail brought her the most exquisite valentine she had ever seen, and it bore the village postmark.

Printed, somewhere among its fringed and pictured folds, were the words:

"Please be my sweetheart once again;
Once more be mine and only mine;
We'll both be happy, if you'll deign
To be my own sweet valentine."

When later in the day she learned that Clay King had returned with his broken arm and heart, she pounced at once upon the conclusion that he had sent the pretty missive, that now became a matter of serious and delightful importance.

Clay King was entirely ignorant of the existence of such a document.

Susie's heart beat high and quickly all that day, and as early as propriety would admit, that afternoon, she hastened to the Kings' and nearly broke again the fracture in poor Clay's arm.

On this St. Valentine's day, Mr. and Mrs. Clay King are immoderately delighted in the possession of a small Clay King, who is very much of a reigning prince, though his father, the King, is still living and unusually happy with Queen Susie.

This king and queen have often talked about that valentine which brought them together again into the halidom of love. They have been unable to solve the mystery of it.

But Clay's mother quietly smiles, all to herself, when the subject is mentioned. She knows who sent it.

WILL L. VISSCHER.

Cold Water Baths for the Feet.

A distinguished medical authority says "the best way to guard the feet against the effects of cold or of getting them wet is to bathe them every morning in cold water. The first morning they cannot be kept in water longer than two or three seconds, after which they must be rubbed vigorously, to restore the circulation. A rough crash towel is the best thing to use. Each morning increase the time that the feet can be held in water until they can be bathed for fifteen minutes without any discomfort."

The hygienic value of soap is hardly realized by the general public. Recent experiments have shown that a solution of soap will kill typhoid or cholera microbes. A one per cent. solution will do so in twelve hours, while a seven or ten per cent. solution will do it in a few minutes.

Cream of Rice with Cherries.

Put a pint of milk over the fire. Moisten four tablespoonfuls of rice flour with a little cold water and add to the boiling milk; stir and cook about three minutes. Add half a cup of sugar, take from the fire, stir in a teaspoonful of vanilla and stir in the well-beaten whites of four eggs. Put a layer of this in the mold, then a layer of cherries, then another layer of cream, and so continue until the mold is full. Serve with a soft custard made from the yolk of the eggs.

Any tendency to premature baldness may be promptly checked by the use of Ayer's Hair Vigor. Don't delay till the scalp is bare and the hair roots destroyed. If you would realize the best results, begin at once with this invaluable preparation.



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28 sizes and styles. Every mill warranted. For All Kinds of Grinding. A boy can operate and keep in order. "Book on Mills" and sample meal FREE. All kinds mill machinery. Flour mills built, roller or buhr system. Reduced Prices for '96. NORDYKE & MARION CO., 285 Day Street, Indianapolis, Ind.

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Since 1861 I have been a great sufferer from catarrh. I tried Ely's Cream Balm and to all appearances am cured. Terrible headaches from which I had long suffered are gone.—W. J. Hitchcock, late Major U. S. Vol. & A. A. Gen., Buffalo, N. Y.

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ELY'S CREAM BALM opens and cleanses the Nasal Passages, Allays Pain and Inflammation. Heals the Sores, Protects the Membrane from colds, Restores the Senses of Taste and Smell. The Balm is quickly absorbed and gives relief at once.

A particle is applied into each nostril and is agreeable. Price 50 cents at Druggists or by mail. ELY BROTHERS, 66 Warren Street, New York.



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PLANT OUR FAMOUS

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all of which are described and illustrated in our beautiful and entirely **New Catalogue for 1896.** A new feature this season is the **Free** delivery of Seeds at Catalogue prices to any Post Office. This "**New Catalogue**" we will mail on receipt of a 2-cent stamp, or to those who will state where they saw this advertisement, the Catalogue will be mailed **Free!**

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The Young Folks.



AMIDST wealth of
beauteous pomp
and show
That ushers in the
day

Triumphant comes the tiny king
Who rules with magic sway;
Before him low in homage bow
The good, the fair, the brave,
With hearts aflame with loyal love
That burns his realm to save.

Enthroned in state, with shaft and bow
For scepter in his hand,
His subjects throng to pay him court
From every sea and land;
The high, the low, the rich, the poor
All own his august will,
And none there be, or great or small,
Who wish their sovereign ill.

On every hand wait his command
His legionaries fleet,
To bear his messages away
With swift and willing feet;
And in the air about him flit
Winged vassals at his call,
That haste to do the bidding of
This monarch sweet and small.

All hail the little sovereign! and
Long may he live and reign
Supreme o'er all the hearts of men—
His power never wane;
With right good-will let all receive
The god of love as king,
And to his throne with glad accord
Their richest blessings bring.

FRANK B. WELCH.

A Defect in His Makeup.

On the 22d of last February little Ike and his brother Morton were taken to a celebration of Washington's birthday, and were so interested in the event and its cause that their father gave them quite a history of the man and hero, especially emphasizing that portion relating to the perfect veracity of the Father of his Country for the benefit of Ike, who was somewhat given to undue stretches of the imagination, and would probably have laid the entire blame of the famous cherry tree on his brother Morton, had the incident occurred in his own experience.

"Remember, boys, that one of the noblest traits in the character of this great and good man was his perfect truthfulness," said the father, in an impressive conclusion. "He could not tell a lie!"

Ike looked soberly at his father for a few seconds, and then wonderingly asked: "Pa, what was the matter with him?"—Harper's Bazar.

By Girl's Reckoning of Time.

She—Don't you know what I mean when I say that I shall keep your beautiful valentine forever and ever?

He (who has had experience)—Yes. You mean about two weeks.



"Little wosy posy oh!
Just the sweetest thing I know!
Here's a happy thought of mine,
Won't you be my Valentine?"

MAKING CHEAP TOYS.

How an Old Austrian Woman Carves Animals of Every Kind.

Amelia B. Edwards, in her "Untrod-den Peaks," mentions many interesting visits to the homes of the working people of St. Ulrich, Austria, where so many toys are made. In one house they found an old woman at work, Magdalena Paldauff by name. She carved cats, dogs, wolves, sheep, goats and elephants. She has made those six animals her whole life long, and she has no idea of how to cut anything else. She makes them in two sizes, and she turns out as nearly as possible a thousand of them a year.

She has no model or drawing of any kind to work by, but goes on steadily, unerringly, using gauges of different sizes, and shaping out her cats, dogs, wolves, sheep, goats and elephants with an ease and an amount of truth to nature that would be clever, if it were not utterly mechanical. Magdalena Pauldauff learned from her mother how to carve those six animals, and her mother had learned, in like manner, from her grandmother.

Magdalena has taught the art to her own granddaughter, and so it will go on being transmitted for generations.

In another house, Miss Edwards found the whole family carving skulls and crossbones for fixings at the bases of crucifixes, for the wood carving of Grodner Thal is religious in its nature as well as amusing. In other houses there were families that carved rocking horses or dolls or other toys, and in still other houses there were families of painters.

In one house were a dozen girls painting gray horses with black points. In another house they painted only red horses with white points. It is a separate branch of the trade to paint saddles and headgear.

A good hand will paint 12 dozen horses a day, each horse being about a foot in length, and for these she is paid 55 soldi, or about 54 cents.

The Way with Valentines.

Clara—Hal said he wanted to be my valentine.

Mabel—And what did you do?

Clara—Just what we always do with valentines. Sent him off.—Detroit Free Press.

Accompanied.

Dora—Did any kisses come with Mr. Spooner's valentine?

Cora—Yes, indeed. He brought it himself.—N. Y. World.

HARD HIT.



"I say, mister, have you got a penny valentine what rhymes ter Maggie?"—Life.

Love's Fitful Fever.

McGarry—Last year he sent her a \$20 valentine.

Merritt—I was with him to-day when he bought her one. It cost a cent.—Truth.

What She Wanted.

He (a humorist)—I'll send you one of my jokes for a valentine.

She—But I want a comic valentine.—Detroit Free Press.

FEATHERS DON'T MAKE THE BIRD



Sally Sullivan—What! Be your valentine? Naw, I ain't bein' the valentine of no slob wot ain't even got no overcoat.

Mickey McManus—Dat's all right, Sally, jist you wait till dem beautiful garments wears out and you'll be glad to be anybody's valentine—you ain't no Venus.—Truth.

For relieving THROAT DISEASES AND COUGHS use "Brown's Bronchial Troches."

WINTRY WEATHER WEAKENS

the system, lowers the vitality and decreases the power of resistance against colds and chills. Many people are feeling weak and shivery just now. They complain of cold hands and feet. Their blood doesn't circulate properly; the raw, bleak air seems to go right through them. Others feel worn out and lack vigor. They are bilious, nervous, have backaches, headaches, and a pale sallow complexion. All these symptoms indicate that the liver and kidneys are out of order. Feeble circulation of the blood shows that the system is in a very low condition. People who feel like this are facing some dangers they little suspect.

LOOK OUT

for pneumonia, influenza or some other dangerous complaint when you are in this state?

If you have any of these symptoms and are not feeling as well as you ought to feel, do not wait until you are laid up with a serious illness. Act at once. Take something that will build up the system, put the blood in healthful motion and act on the liver and kidneys. Prevention is better than cure.

There is only one way to get well. There is only one remedy that can make you well. The remedy you need is Warner's Safe Cure, which is recommended and prescribed by physicians throughout the world. This great remedy contains the vital principle essential to the maintenance of health and strength. It increases the muscular energy, fortifies the system and builds up every part of the body. It has never been equalled as a cure for liver and kidney complaint, bladder trouble or Bright's disease. It is the great standard remedy, the best remedy, the most reliable remedy known to medical science. Every one who has ever tried it, believes in it.

If your health needs attention, do not experiment with inferior remedies. It is cheaper and wiser to take a remedy that has earned a world-wide reputation, which has stood the test of years and has proved, in millions of cases, that it can always be depended upon to relieve and cure.

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We can furnish you *The Cosmopolitan Magazine* and *KANSAS FARMER* one year for \$1.85. Send in your subscriptions for this combination before April 1, 1896.

Farmers' institutes have been appointed for the following places and dates, and will be attended by the representatives of the Agricultural college named:

Haven, Reno county—February 13-14, Profs. Mayo and Sears.

Overbrook—February 13-14, Profs. Pope and Olin. Mrs. Nanny Basky, Secretary.

Russell—February 20-21, Profs. Hood and Mayo. H. M. Lang, Secretary.

Cherryvale—February 20-21, Profs. Graham and Mason. B. F. Moore, Secretary.

Newton—March 5-6, Profs. Walters and Burtis.

Garden City—February 26-28, President Fairchild.

Iola—February 14, Prof. Failyer.

Concordia—February 27-28, Profs. Graham and Georgeson. W. S. James, President.

EDITOR KANSAS FARMER:—Enclosed find money order for \$2.45, for which please extend my subscription one year for the KANSAS FARMER, New York Weekly Tribune and American Sheep Breeder and Wool Grower. I hope you will give us, through the FARMER, all the information about irrigation and the cheapest methods of putting down wells, where we have to go 100 feet or more, also the cheapest pumps and power to raise the water. D. G. CURTIS.

Spearville, Kas., February 4, 1896.

It is expected that the forthcoming report of the State Irrigation Commission will contain at least \$20,000 worth of just such information as our correspondent desires, as the result of the first year's investigation officially made. The KANSAS FARMER is awaiting this report with great anticipations, and will endeavor to present to its readers its most valuable points.

The Secretary of Agriculture has issued an order fixing the quarantine line as to Texas fever much further north in some portions of its course than formerly. The line now follows the south line of the United States from the Pacific ocean to the southwest corner of New Mexico, thence along the south and east lines of New Mexico to the south line of Colorado, thence east along the south line of Colorado and the south line of Kansas to the west line of Missouri, thence south to the south line of Missouri, thence east, etc. This places the entire area of Oklahoma and Indian Territory south of the quarantine line, and suits neither the cattlemen of Oklahoma nor the Live Stock Association of Kansas City. It is claimed that the Territory cattle do not communicate the fever and that the only trouble arises from the imperfect enforcement of quarantine on the former line. The order, if rigidly enforced, certainly makes Kansas cattle safe, but if it unnecessarily leaves Territory cattle exposed and places a needless barrier between them and the market, then a hardship is inflicted.

Word comes from all quarters that the neatest and most satisfactory dye for coloring the beard a brown or black is Buckingham's Dye for the whiskers.

IMPORTANCE OF EVERYTHING.

The question as to whether general or special farming is the kind for success in profit-making in the long run, is one which receives varying answers. The disposition to specialize has had a great development in this country. Manufacturers have their specialties, merchants in the large towns have confined their business to single lines, and farmers have devoted their energies and their capital to the production of some one crop. There are indications of a reaction from this division of industries and the department store is now a feature of the great cities. The complaint is made that these great department stores starve out the smaller dealers by buying cheaper and selling on less margins than the small dealer can afford.

In farming there may be greater profits for the specialist, and he is more liable to disastrous failures than is the general farmer. He can with less capital avail himself of the advantages of large operations by the aid of machinery than if he diversifies his farming. It is questionable, however, whether the farmer prince of the future—and he is coming—will not, like the merchant prince of the present, operate in a large way many departments of his calling.

Whether we like it or dislike it, we do in this country imitate in many ways the older developments in England. In the London *Cable* of January 25 occurs an interview with a large farmer, Mr. Henry Cranfield, of Buckden, in which may be seen the realization of some of the present agricultural tendencies in this country. Questioned as to the extent of his farming:

"In all," he said, "there are 2,200 acres, of which 570 are grass and the remainder arable."

Most English farmers are tenants.

"Who are your principal landlords?" was asked.

"The Ecclesiastical Commissioners. They own all the land I have in Huntingdonshire, except 200 acres, which belong to Mr. John Linton, of Buckden. Yes, they are good landlords. In fact, I have no fault to find with any of my landlords. The Landbeach farms are owned by the University of Cambridge."

As to the features of his farming he said:

"I am an all-round man, and attach importance to everything. I never know what is going to pay me best."

The idea of attaching importance to everything that one does is an excellent one. Many persons who have done the same things repeatedly for a long time, perhaps all their lives, grow to despising them and to belittling their importance, even though they may be the most important things done in the world. The example of this English farmer of 2,200 acres in attaching importance to everything is one the following of which will tend to success in farming everywhere and will lead to the dignifying of the farmer's vocation. To do this it is not necessary that the farmer talk always and everywhere about his crops or his horses, cattle or hogs. Talking about one's daily work is in other walks of life called "talking shop." It is never excessively indulged in by persons of wide information and is not infrequently an indication of want of general intelligence.

The amount of stock kept on a farm of 2,200 acres in England is considerable. Speaking of his horses, Mr. Cranfield said:

"I work seventy, of which fifty are shire mares. There are ten shepherds and foremen's horses, and seventy young ones."

"How many do you breed?"

"From twenty to five-and-twenty cart horses every year."

Of his method with his brood mares he said:

"The brood mares work up to the time of foaling, which is about the 1st of May. Most of the work on the farms is done by them. The mares suckle their foals till harvest, when the foals are weaned and mares are ready for the reaping machines, so that no additional horse is kept on account of breeding."

He is not uneasy lest the horse be superseded by steam or other motive power, but recognizes the fact that these have their uses, which are being considerably extended. Continuing as to his cattle:

"I have 160 bullocks—three-year-old cattle for grazing next year. I keep also four or five half-bred Alderneys for my own dairy purposes. The bullocks which are not fatted in the winter go to the Leicester

and other grass in the spring, and are sold off the grass fat. In a bad year they have cake on the grass. The stores are again bought in at Michaelmas" [September 20].

In England general farming without sheep would seem an anomaly.

"How many breeding ewes do you keep?"

"Two hundred and fifty. I have also 1,450 feeding sheep. This is about 500 short of the average, owing to the poor crop of roots."

"When do you buy your lambs in?"

"From August to October. They are fed on roots, and sold out fat from March to June."

And the pig—he is there of course.

"I have upwards of 500 of all sizes. They are all home-bred, cross between Yorkshire and Berkshire."

"What about prices?"

"The prices vary considerably, but if you do not keep a full stock, they won't pay any money. Of course, they may not if you do."

This farmer of thousands of acres does not despise the humble "biddy." He attaches importance to everything.

"You have fowls on most of the home-steads, I notice."

"On every one of them. There are about 350 hens at various houses. They are mixed breeds. I am partial to Minorca cross because of their egg-producing power. We fat a number of fowls but go in for eggs chiefly."

The question of labor necessarily is an important one on so large a farm. The interview on this is interesting.

"I gather that you are a large employer of labor."

"Roughly speaking, labor costs me £2,500 [nearly \$10,000] a year."

"A very big amount?"

"But essential, owing to the quantity of arable land. I employ about fifty men and between thirty and forty boys."

"Any women?"

"No. 'Women do not care about working on the land now. Only a few come out at harvest time."

"What are the average wages to the men?"

"I am paying 10s. [about \$2.50] a week now; but I have been paying 11s. That is to say, the nominal wages in winter are 10s. and in the summer 11s.; but the harvest and extra work brings the average amount up to 14s. or 16s. a week. The boys commence at 8s. and rise 6d. or 1s. a year. No, I do not give beer. My father was the first in this neighborhood to knock it off."

"Have you any trouble in getting men?"

"None at all. But this is probably because I employ them regularly all the year round. As you know, a good deal of Hunts has gone into grass, and people who do not employ men all the year through have a little trouble. Several of my men have worked on these farms all their lives."

On the question of the effect of the depression upon laborers appears the first lack of a broad view. That the reduction in the wage scale is far less than the decrease in the cost of living is undoubtedly true, but, like many employers, he fails to realize that the chief hardships of the depression result not from low wages but from no wages on account of no employment in the case of vast numbers. Depressions always throw the weaker out of their jobs, and when the depression is very great and long continued the numbers thus cut off from earning a livelihood progresses far up the scale and affects the fairly strong. As to the depression, Mr. Cranfield was asked:

"Do you think that the laborers feel the depression?"

"I doubt it. An old laborer of mine said the other day, that a shilling purchases as much now as half a crown did some years ago; and if wages do not fall, or only slightly fall, they must, therefore, be better instead of worse off."

Of his system of farming he said:

"All my lands are farmed on the seven-course shift. First, roots—kohl rabi, swedes and mangolds, for which the land has four hundredweight of superphosphate; then barley or oats, with young seeds drilled in; next, seeds which, when plant permits, are harvested for seed; wheat follows; after wheat the land has ten loads of manure and three or four hundredweight of superphosphate for barley or oats; beans come sixth, and for beans the land has also ten loads of manure; and, lastly, after beans, wheat."

After mentioning that his largest field contained 260 acres and that the others are from sixty to seventy acres each, he remarked the recent change in this respect:

"Forty years ago all the fields were in five to fifteen-acre pieces. I may say that the clay land is all drained from three feet to four feet deep, ten yards apart. Half of it has been done again with a drain between each of the old drains."

"You believe in draining, then?"

"I believe that the interest on the outlay of the draining is paid every year by the economy in horseflesh alone. But I am a strong advocate of good farming, and long before Lord Winchilsea started the National Agricultural Union I maintained that good farming was the only bond of union between the three classes [landlords, tenants and laborers]. It is so to-day."

This brought up a question of agri-

cultural political methods recently inaugurated in England and which may well be studied by farmers on this side.

"Are you a supporter of the N. A. U.?"

"Certainly I am, and I think that it cannot fail to do a lot of good to British agriculture, for up to the time Lord Winchilsea infused interest into our business, English farming was absolutely ignored in the country and by the House of Commons. I am very warmly in favor of a Parliamentary party pledged to promote the welfare of agriculture."

The N. A. U.—National Agricultural Union—is a widespread organization, promoted largely through the efforts of Lord Winchilsea. It has an immense influence with the present administration, acquired by good management at the last election. The N. A. U. had no candidates of its own but it formulated a series of demands and submitted them to every candidate in the field. It so happened that a majority of those elected to Parliament had made favorable replies to the demands of the N. A. U. The last sentence quoted above from Mr. Cranfield indicates danger of the common mistake in such cases, that is a disposition to organize a new party instead of using the machinery of those already in the field and securing the interest and work of candidates in exchange for the votes which turn the scales in their favor.

Of his taxes he said:

"On everything I produce my local burdens come to sixpence in the pound."

Bad seasons are experienced in England. The interviewer remarked:

"I suppose you are subject to the usual fluctuations in farming?"

"We are indeed. Take the root crop for example. I had the driest and worst year on record here: whereas at Landbeach, which is twenty miles distant as the crow flies, I think I never had a better all-round harvest—roots, clover, barley and oats. It was all failure in Hunts; all success in Cambridgeshire. My father always used to say, 'You must open out and aim at everything. Some things will hit and some will miss, and no one can tell what is sure to hit or miss beforehand.' It is the same in these days. A man who forestalls the popular wants is the man who makes money."

It is worth while to consider the methods and thoughts of this energetic farmer who tills high-priced land on which he pays high rents.

Expense of Linseed Meal.

EDITOR KANSAS FARMER:—I saw that article about feeding steers on linseed meal in so many different papers that I almost was led to believe it was a paid advertisement from the Topeka Linseed Oil Works. There was so large a mistake in it that I cannot help but make notice of it for the benefit of inexperienced feeders. It was claimed that the cost was only one-third more than corn. Now the fact is that oil meal sold last year for \$25 per ton. After a man paid freight and got it home it cost nearly \$30, or \$1.50 per 100 (it retailed in stores for \$1.75), while corn only cost about 55 cents per 100, consequently oil meal costs nearly three times as much. Now, a good feeder can put on a good steer three pounds a day with corn, so if a man will make it pay with oil meal he ought to be able to put on from seven to eight pounds per day, which is simply impossible.

I like oil meal to feed as a medicine, as it keeps hogs and steers in good health, but as a feed I believe anybody that will keep account will find himself coming out at the wrong end.

Urbana, Kas. G. SCHMOKER.

Ho! for Cripple Creek.

Remember that the Chicago, Rock Island & Pacific is the only line running directly from the East to Colorado Springs, the natural gateway for the Cripple Creek district.

Colorado Springs lies at the foot of Pike's Peak at its eastern base, and Cripple Creek is part way down the southwest slope of Pike's Peak and near its western base.

Two all rail routes from Colorado Springs are offered you. One by the Midland railway up Ute Pass, via Summit, to Cripple Creek. Another over the Denver & Rio Grande, via Pueblo and Florence, to Cripple Creek. Take the Great Rock Island Route to this wonderful gold mining camp. Maps, folders and rates on application. Address JNO. SEBASTIAN, Gen'l. Pass. Ag't, Chicago.

"Farmer's Ready Reference, or Handbook of Diseases of Horses and Cattle." A few copies yet on hand that will be sold for \$1 each, by mail. The chapter on "Corn Stalk Disease" alone worth the price. Address S. C. Orr, V. S., Manhattan, Kas.

An Experience With Sacaline.

EDITOR KANSAS FARMER:—Now that the war with England has been side-tracked, and as there is no Legislature in session in Kansas which demands the price of liberty or the State militia, it is high time we farmers were getting together to save the country in 1896, as the politicians will have to guess on a President.

I would like the 1895 experience of the editor, or any of the readers of the FARMER, in raising sacaline (*Polygonum Sachalinense*). This is the wonderful plant that an 1895 seed catalogue says, "Is perfectly hardy, even in Siberia; flourishes in the Indias, requires no plowing before planting, endures severest drought, luxuriates in wet soils. Produces ninety to 180 tons of green forage per acre. Grows fourteen feet high by June. Fire will not kill it," etc.

I obtained, last spring, through the kindness of the editor of the *Irrigation Age*, a supply of seed furnished him by the original introducer in America, and gave them special care in a cold-frame. Notwithstanding its aristocratic origin and careful nursing, I never got a plant over an inch high, and not one survived the summer. Hope to hear from some one who has made as grand a success as I did failure.

N. O. WAYMIRE.

Garfield-on-the-Arkansas.

Fighting Chinch Bugs.

EDITOR KANSAS FARMER:—I saw C. W. Willey's letter about fighting chinch bugs, and giving his way. His medicine for them is the same that I use, but he keeps them around and feeds them too long to suit me. Prof. Snow is as well posted on chinch bugs as any man that I know of, and he has figured that one female chinch bug would lay 500 eggs in a season, and we know that they hatch soon, and the young get to business promptly and lay another litter of eggs. He has figured that one female bug and her offspring would have a family of 3,000 bugs in the fall in a favorable season. Now, my way is to kill before she lays the first eggs. Burn over all the places that can be found where they wintered, and I will guarantee that all that get the medicine will not lay many eggs. I burn out the roads and the trash along the hedges, and I am certain that it is a great help to keep them in check. Mr. Willey thinks it is useless, unless there is concerted action. Now I know that if one waits until all get ready to clean up, it will not be done. But go to work and clean up your own farm, and show to your neighbors that the bugs have not eaten your crop up, and then they will see that it was their negligence that made them short on a crop, and they will go to work sooner than if they had to be forced to keep the law.

F. P. STONEBRAKER.

Galva, Kas.

Red Clover vs. Chinch Bugs.

EDITOR KANSAS FARMER:—Mr. C. W. Willey gives his mode of fighting or destroying chinch bugs, in an article in the KANSAS FARMER of January 23. His suggestion that the Legislature be requested to pass a law to compel farmers, or those who sow wheat, to comply with the conditions he suggests, are very easy to talk about, but to put the same into operation is another thing; besides, it is not practicable, really if it did the business. Mr. Willey invites others to criticize his method of destroying these little pests. I have no desire to criticize Mr. Willey, but will give my method in a few words as possible.

In the spring of 1893, a Mr. Brown sowed a field of barley beside a field of wheat. This field of barley contained eight acres. In half of the field (the half next to the wheat) he sowed some red clover, and when this field of wheat became ripe the bugs left it, and crossed the half of barley which had the red clover in it, and in a few days destroyed the other half of the field of barley, and never in the least injured the half field of barley which was sown with red clover. Now this looks to be a very cheap and a very practicable way of getting rid of the bugs or preventing them from eating up a crop of small

grain. Since then I have taken notice of a field of corn which was planted on clover sod, and the bugs never in the slightest manner injured it.

This may not always prove true but it did in that case, and it is my honest opinion that it will do the work, for I believe that chinch bugs will not stay or live where there is or has been clover, as I have never seen it fall.

Stanley, Kas. P. P. DECKMANN.

WONDERFUL are the cures accomplished by Hood's Sarsaparilla and yet it is only because Hood's Sarsaparilla, the one true blood purifier, makes pure, rich, healthy blood.

HOOD'S PILLS for the liver and bowels, act easily, yet promptly and efficiently.

Salt for Chinch Bugs and for Drought.

EDITOR KANSAS FARMER:—I hoped to hear something about salt, in your paper, of actual experience in the salting of land, as I am a believer in the salting of land, and have been trying to have some sown on my place, but have not heard yet whether this was done or not. I have salted a well to get water in soapstone formation and clay that was just a seep of a pint in twenty-four hours, and it made the best well around that section for water. The man that told me about it said it did the same for him. We hauled water and put it in the well, then put in about a bushel of salt, and it is one of the best wells of water to-day, ahead of good veins in other wells. The way I wanted to have salt put on my land was to sow broadcast, one barrel or three and a half bushels to the acre. If the ground is trashy or weedy, drag or harrow it the way it is to be plowed, then sow the salt and plow it under, with a turning-plow, as deep as the soil will permit; then follow turning-plow with subsoil plow to a good depth; then you have the salt in between the two plowings, where it will do its work of drawing and retaining moisture, and if there are any eggs of the chinch bugs in the trash and litter, they will get their share of the salt to kill them, as salt is a death-hatcher to eggs. I want to salt the highest and driest lands. I should not want salt put on the surface or uncovered, or on a plant. The first would lose its savor and be of no account, and the second would kill the plant, in my opinion. I have been speaking with an Englishman. He told me that in the north of England they sowed six bushels to the acre to kill the worms in the land, and it did it. I consider salt to be an irrigator to uplands. I only wish I had the means and I would give it a good trial. The people of Kansas should salt their dry lands, and save themselves and their crops, especially the small grain, as the salt will save it and give it succor to cause it to take deeper root.

JAMES J. BRANICK.

Chicago, Ill.

[Salt has been pretty extensively tried for chinch bugs, and the reports as to its efficacy or failure have been so varied that its value is far from established. Portions of the State where the surface soil is thoroughly impregnated with salt suffer from protracted dry weather very much as do other sections.—EDITOR.]

CONSUMPTION CURED.

Chronic Catarrh of the Lungs, Ordinarily Called Consumption.

Pe-ru-na cures catarrh, even after it has reached the air cells of the lungs. A recent cure of this kind was reported by Mrs. H. A. Tyner, Four Oaks, N. C. In a recent letter to Dr. Hartman she says: "I will write a few of the particulars of my daughter's sickness. She had every symptom of consumption—cough, suppression of menses, night sweats and great emaciation. She was so low that none of our neighbors thought she could live. She could sit up only a little while at a time. I got a bottle of Pe-ru-na, began giving it to her, and in twelve months she seemed as well as ever in her life. I feel, and so does every one that knew about her sickness, that Pe-ru-na saved her life. My daughter's name is Mrs. L. Keene."

If consumption was universally regarded as catarrh of the lungs, and treated as catarrh would be treated, located anywhere else, it would lead to a greater number of cures.

Dr. Hartman's illustrated book on chronic catarrh will be sent free for a short time by the Pe-ru-na Drug Manufacturing Company, of Columbus, Ohio.

Gossip About Stock.

Elm Beach stock farm, owned by Irwin & Duncan, of Wichita, Kas., report that they are prepared to offer some choice bargains in the line of Short-horn cattle and Poland-China swine, and cordially invite any intending purchasers to make them a visit or write their wants. The stock and prices are taking inducements.

Hog-raisers will be interested in the new advertisement of the Anglo-American Stock Food Co., of Chicago, which appears this week. We have also a spicy communication from Mr. Allardye, the President of the company in reply to Mr. Crummer, which will appear in our next issue. It will stir up the "animals," we feel sure, and give some new light on hog cholera.

W. S. Hanna, of Ottawa, Kas., reports twenty-six breeders sold for December, twenty for January, and six for February so far. A few good boars for service will be closed out at \$10 each—at nearly pork prices—which have heretofore sold at \$15. Sales to Texas, Colorado and California are noted. Pigs nearly one-half the identical blood of Woodburn Medium have been sold at \$10 instead of \$100.

T. A. Hubbard, the noted breeder of Berkshire and Poland-China swine, at Rome, Sumner county, Kansas, was a visitor at the capital city last week. He reports a fine crop of youngsters ready for the buyer. His present herd consists of about 200 head, of which eighty are of last spring's farrowing, about forty being of each breed. Young breeding males of either breed can be furnished to meet the requirements of the most fastidious. Mr. Hubbard is now breeding a lot of gilts of families which have won fame in the show ring. These will make sure money for the right men who purchase them.

Our first-page illustration, this week, is of Clay Dee 25877 A., from Sunny Slope farm, Emporia, Kas. This hog won first in class and sweepstakes at the Kansas State fair, 1895, in strong competition, and was an easy winner. Another good one, a credit to any herd, and we expect that from the opportunities they are giving him they will get some great results, as they are breeding him to some of the choice sows of Sunny Slope farm. He is very masculine, as will be seen from our first-page cut, which is a faithful portrait of him. He weighs about 600 pounds; heavy bone, fine crest, vigorous, low, on good straight legs. They have bred him to about twenty-five of their best sows, including prize-winners. These sows will be sold at their closing-out sale. This will be a great chance for breeders to get something nice for their herds.

Pine Tree stock farm, owned by J. O. McDaniel, Gardner, Johnson county, Kansas, is soon to have a general closing-out sale, as advertised in this issue, of Short-horn cattle, draft and German Coach horses, pure-bred poultry and farm equipment. The Short-horn cattle and the horse stock are very desirable because of their individual excellence and select breeding. The foundation of these Short-horns came from the pick of the first and second annual sales of the Inter-State Short-horn Show and Sale Association, held in Kansas City in 1891 and 1892, when nothing but very select animals were offered, choice selections from the best known herds of the West. Some of the "plums" of these sales went to Mr. McDaniel at long prices. Now that he has decided to sell Pine Tree stock farm, breeders will have a chance to get some fine stock at the highest price bid. The horse stock offered will prove profitable to purchasers, being sired by or bred to either his imported Percheron or German Coach stallions. This closing-out sale certainly affords a money-making opportunity that is seldom offered in Kansas, and very properly occurs on Washington's birthday, Saturday, February 22, 1896.

The grand sale of pure-bred swine, to be held at Topeka, Friday, February 21, 1896, by V. B. Howey, should attract a large attendance of breeders and farmers needing first-class Berkshires or Poland-China swine. The offering consists of seventy-five head, including forty sows in farrow by his best herd boars and from such dams as Nancy Hanks 75904 (now has a litter of nine pigs), Corwin Maid 78700, Nellie 15791, Corwin Girl by Challenge and out of Nancy Hanks, and Nelly 2d by Challenge and out of Nelly 15791. The prize boars which have sired the pigs offered at this sale are the Poland-China boars, Challenge 28795, sire Lawrence's Perfection 27399, dam Sedgwick Girl 2d 71170. The other boars, Corwin Index 31459 and Dandy Jim Jr. 8493, are recognized blue blood and prize-winning strains. The Berkshire herd boar, The Poet 34247, sired by Longfellow 16835, dam Pennock's Pride, and the prize boar Stumpy Duke 34307, sire Onward II, dam Stumpy 32171. The strains of blood represented by these herd boars and famous dams indicates what a desirable offering Mr. Howey is making, and in referring to it himself, he says: "Fourteen years ago I commenced breeding thoroughbred hogs, my foundation stock being selected from the best herds in the United States, and after being in the show ring for thirteen years have come to

My Back

Arms and limbs are stiff and lame and it is misery for me to move. This is rheumatism, caused by lactic acid in the blood. Neutralize this acid, purify the blood, and cure rheumatism by taking the one true blood purifier, Hood's Sarsaparilla.

"I have been taking Hood's Sarsaparilla for the last six months, and find it a great help to me. I have been suffering with rheumatism in my left arm and shoulder, which was rendered entirely helpless. I am able to use them again since taking Hood's Sarsaparilla." Mrs. C. E. SAY, Box 414, Junction City, Kansas.

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Is the One True Blood Purifier. \$1; 6 for \$5.

Hood's Pills cure all Liver Ills. 25 cents.

the conclusion that I know a good hog when I see it. I have shipped east to Indiana and west to Washington and New Mexico, and usually have had more orders than I could fill. The past season I have been more successful in mating than ever before, and have on hand about 100 head of the most finished hogs I have ever seen anywhere, and on account of the hog cholera panic throughout the land and frightened breeders sacrificing their hogs at ruinous prices, I have held my stock until this scare is now over, and as we are not likely to see another cholera year under four or five years, am now ready to offer my stock for sale. This is the most uniform lot of sows that I have ever seen in any herd, such dams as litter nine pigs. In this offering are several yearling sows as good as any man's hogs, and bred. I have none but hired help and propose to sell off very close. Send for catalogue and see the breeding of this famous herd."

Among others engaged in swine husbandry in Kansas is Mr. W. H. Wren, of Marion, Marion county, who, after twelve years at breeding high-class Poland-Chinas, once more comes before the readers of the KANSAS FARMER. Mr. Wren had a very successful year during 1895 and at this time has very choice and select lot of twenty-five yearling and early spring of 1895 bred gilts ready for the inspection of the intending buyer. All the males old enough for service have been sold. Over 170 head have left the farm during the past year, and with the new recruits since added to the herd numbers now about 100 head. To give the reader some idea of the strength of the female division of the herd, the spring of 1895 farrow aggregated 112, making an average of eight to the litter. The boars used last year were Wren's Medium 12387 S., bred by Miller, of South Dakota. The sire was Happy Medium 8397 S., that was the sire of Woodburn Medium, the \$1,000 hog, and later on was the sire of Kirkwood Medium, a half interest in him having lately been sold for \$1,250. The dam of the Wren harem king was Best of 1890 22075 S., she by Young U. S. 4252 S. and out of Corwin Queen 22076 S. Best of 1890 was out in show ring dress at Ohio and Indiana State fairs, also at the International, held at Detroit, and other leading fairs, and won six first, seven sweepstakes and three times winner in herd rings. On reference to the more extended pedigrees on both lines of Wren's Medium, one finds him a grandly-bred animal, and the visitor on looking over his get at once concludes that he is a great sire and that "blood will tell." The best litter out of a gilt seen by the writer last year in Kansas was by him and out of a gilt from Cherry Orchard herd that was bought in dam of Miller and subsequently sold to George Topping, of Chase county. She, of course, had top breeding behind her, being by Sensation 25897 A. and out of Black Swallow 29188 A. Quite a string of the bred gilts are by Corwin White Face 9924, he by Corwin U. S. 7116 S. and he by Corwin King 4253 S. and out of Corwin Duffield 16083. His dam was Lady White Face 17785 by Royalty 1686 and out of Lou 762. The well-up Poland reader will at once discover that Corwin White Face is a half brother to J. H. Sanders 27219 O., that won first in class and sweepstakes at the World's Fair, and has the same relationship to Free Trade 4420 S., the \$300 hog. Here, then, are two herd boars, Mr. Poland-China breeder, that just can't be bested by anybody's in the State, nor north or east. Mr. Wren, in order to keep up the high character of his herd, bought at a long price a son of the noted Hadley Jr. 18314 S., whose very excellent picture appeared in the last "Christmas number" of the *Breeder's Gazette*. Now, take into consideration the breeding of Wren's Medium and Corwin White Face and blend the blood of Hadley Jr., and could one expect anything but something extra good? The facts are that Kansas swine breeders do not fully appreciate Mr. Wren's efforts. His patrons, however, do, at least in every instance where the writer in his meanderings over the State has found pigs bred at Cherry Orchard farm, they are invariably pronounced good ones. Among the gilts by other sires that have been bred and ready to go to new masters are four by Low Down Chief 29821 O., six by Black Model 33991 O., six by Ziller's All Right 9915 S., and four by Dave Finch 2d 13166 S. Here, then, is a chance for the best of blood commingled with the best. Why send East when it's here at Cherry Orchard farm of Wren's?

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Cough-cure, the most prompt and effective remedy for diseases of the throat and lungs, is Ayer's Cherry Pectoral. As an emergency medicine, for the cure of



Croup, Sore Throat, Lung Fever and Whooping Cough,

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Cherry Pectoral cannot be equaled. E. M. BRAWLEY, D. D., Dis. Sec. of the American Baptist Publishing Society, Petersburg, Va., endorses it, as a cure for violent colds, bronchitis, etc. Dr. Brawley also adds: To all ministers suffering from throat troubles, I recommend

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Horticulture.

EVAPORATED RASPBERRIES.

From Bulletin 100, New York Experiment Station, by Prof. L. H. Bailey.

Western New York leads the world in the production of dried raspberries. Something like 1,500 tons of the evaporated product are marketed each year. Of this, about 1,000 tons are produced in Wayne county, in which the towns of Williamson and Sodus, which produce nearly or quite half of the amount, are the most important centers. Marion, in Wayne county, is also a heavy producer of dried berries. Outside of Wayne county, the region tributary to Dundee, Yates county, is the most important center of the dried raspberry industry. The product sold at Dundee is probably upwards of 150 tons each year. Many berries are also dried south and east of Dundee, in Schuyler county, round about Watkins. In Niagara county the industry has become established at Somerset, where about twenty tons are produced each year. There are also many persons who dry raspberries in other parts of the fruit regions of western New York, and the industry is gradually enlarging as people come to learn that it affords a means of making the grower independent of the open market.

Yet, the visitor might inquire in vain for dried raspberries in many of the stores in this western New York country. In other words, the product is not largely consumed in this State. It is used mostly west and northwest of Chicago. Probably four-fifths of the product is consumed in lumber and mining camps, and on the plains, where fresh fruit is scarce. None of it, so far as I know, is exported, and there is very little, if any, commercial dried product in Europe. C. H. Perkins & Co., Newark, N. Y., "tried the experiment of exporting some of these goods to France several years ago, but shipped only two or three cases of them. The goods are still on hand in France, with no disposition to take them at any price." Raspberries are dried to an important extent in southern Illinois and in Michigan, and lately also in Arkansas. These dried raspberries have as much merit in cookery as the fresh berries, and they are used in the same manner in sauces and pies.

Wayne county is the home of commercial evaporation. In the apple-growing communities, nearly every farm has an evaporator of one kind or another. It is said that there are 2,200 evaporators in the county, and this estimate is probably none too high. All this industry is the product of the last twenty-five years.

The beginning of the modern industry, however, and the introduction of the word "evaporated" to designate the product, date from 1870, when Charles Alden, of Newburgh, N. Y., patented his tower evaporator. The decade from 1870 to 1880 was prolific in the invention of capacious evaporators and accessories, some of which determined the course of the evaporating industry.

The evaporators which are used in western New York may be arranged in five categories—the kilns, horizontal evaporators, tower steam tray evaporators and air-blast evaporators. The kiln is nothing more than a slatted floor, underneath which hot air or smoke pipes or steam pipes are conducted. The slats are hard wood, sawed about seven-eighths inch wide on top and a half inch wide on the bottom, and they are laid so that a crack one-fourth inch wide is left on the floor. As the crack is wider below, it does not clog and fill up. The kiln is used for curing hops, for drying the skins and cores of apples, and occasionally for drying raspberries and even for the making of "white stock," that is, the commercial grade of sliced evaporated apples.

The horizontal evaporators, in which the pans or trays of fruit are moved horizontally or obliquely across the heating surface, are little used in western New York, and are therefore not discussed in this paper.

The tower or stack evaporators, in various forms, far outnumber other appliances in this State. The stack is

a chimney-like structure, of wood or brick, resting in the basement of the building and extending up through the building and projecting above the roof. A coal or wood furnace—preferably the former—is placed in its base, and air, which is drawn in from the basement, passes over the heated surfaces and ascends through the shaft, drying the fruit as it rises and carrying the vapors into the atmosphere. The fruit is placed in the stack on the first floor, that is the floor above the basement. It is spread on trays, and as new trays are put in those which were first inserted are elevated in the tower. The trays finally reach the second story, by which time the fruit should be finished, and the trays are removed and emptied and taken back to the first floor, to be used again.

Growing Peaches for Profit.

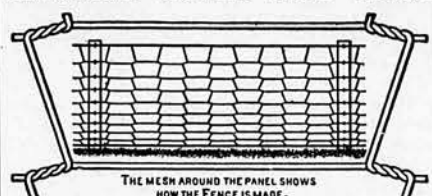
EDITOR KANSAS FARMER:—The most profitable investment I have is a peach orchard. I find home-grown seedlings the most profitable, for the peach is a very slow acclimator. In fifteen years the third propagation from the seed not only had improved in quality and size of fruit, but in productiveness and vitality of the tree. I find that people will buy and pay a good price for good-sized seedlings, in fact, for all purposes they will sell side by side with budded fruit. I find the end-clipping system, now so much practiced, all wrong. If the practice is merely for ornamental purposes it is all right, but for fruit it is all wrong. I find that the largest and best flavored peaches grow on the stems farthest from the trunk. Peaches must have sunlight and air. I prune to spread the top, and grow the limbs to pierce the sky, like church spires. I find to grow peach trees with apple trees does not impair the quality of the fruit or the trees. J. J. BURGER.

Red Clover and Alfalfa in the Orchard.

EDITOR KANSAS FARMER:—I notice in your issue of the 23d ult. an article headed as above. Prof. Mason writes as follows, in the closing paragraph: "Never sow oats or other small grain among trees. They rob them of too much moisture." I would simply add that alfalfa will rob them of moisture to a still greater degree. I know of no crop that is worse in this respect than alfalfa.

Under the same heading you also publish the opinion of Prof. Watrous, of the Colorado Experiment Station. I fear the information given there is wide of the mark for Kansas conditions. I think the alfalfa would get the lion's share of the water and leave the tree to die. I have been trying for four years to start a young orchard in an alfalfa field, using an adjoining piece of land as a check, growing nothing on it but the trees. Both pieces were irrigated alike, enough water being given to keep the cultivated piece in good condition. The result of the experiment is that every tree in the alfalfa is dead. I am not prepared to say how much water it would take to keep a crop of trees and a crop of alfalfa alive on the same ground. From the above experiment I would conclude that where rains are depended upon for moisture, alfalfa would be a

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Suddenly; but never without warning symptoms, such as Faint, Weak or Hungry Spells, Irregular or Intermittent Pulse, Fluttering or Palpitation of the Heart, Choking Sensations, Shortness of Breath, Swelling of Feet and Ankles, etc.

Dr. Miles' Heart Cure, Cures Heart Disease.



Mr. Geo. L. Smith, of the Geo. L. Smith Mantel Co., Louisville, Ky., writes Feb. 20, 1894: "For about a year I was a terrible sufferer from heart trouble, which got so bad I was obliged to sit up in bed to get my breath. I had to abandon business and could hardly crawl around. My friend, Mr. Julius C. Voght, one of our leading pharmacists, asked me to try Dr. Miles' Heart Cure. I had used little more than a bottle when the pain ceased and palpitations entirely disappeared. I have not had the slightest trouble since, and today I am attending to business as regularly as ever."

Sold by druggists everywhere. Book on Heart and Nerves sent free. Address Dr. Miles Medical Co., Elkhart, Ind.

Dr. Miles' Remedies Restore Health.

very undesirable crop for a young or old orchard.

Prof. Mason struck the key-note when he recommends farmers to abandon the notion of getting any crop other than apples out of their apple orchard. Of course, there are exceptions to this rule, but the rule is a good one to stand by. E. S. RICHMAN.

Agricultural College, Logan, Utah.

A young man in Lowell, Mass., troubled for years with a constant succession of boils on his neck, was completely cured by taking only three bottles of Ayer's Sarsaparilla. Another result of the treatment was greatly improved digestion with increased avoidance of indigestion.

MONEY IN ONIONS

If You Plant the RIGHT SEED.

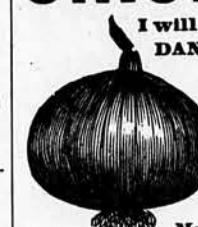
My new handsomely illustrated SEED BOOK tells all about the best varieties of Onions and every thing of interest in the Seed Line; how to grow and market vegetables successfully—FREE if you write at once—to-day. P. O. Box 626

H. W. BUCKBEE, ROCKFORD SEED FARMS, ROCKFORD, ILL.

CHEAP ONION SEED

I will sell a strain of GLOBE DANVERS Onion Seed at

88cts. per lb.



postpaid by me. Discount on large quantities. This is American grown new seed.

My Seed Catalogue FREE.

JAMES J. H. GREGORY & SON, Marblehead, Mass.

In the Dairy.

Conducted by A. E. JONES, of Oakland Dairy Farm. Address all communications Topeka, Kas.

Decrease in Oleo.

Notwithstanding the fact that thousands of pounds of oleomargarine are sold to persons who suppose they are buying butter—"pure country butter" as represented by the conscienceless seller, the sales of oleo in 1895 did not equal those in 1894. Some of the decrease was very likely due to the lower price of good butter, for there are many who put the limit they can pay for butter at twenty-five cents—so long as this or a less amount will buy butter they afford it; when the price exceeds that they go without or buy a substitute—oleo.

In corroboration of the statement that the sales of oleo were less last year than the year before, we quote from a recent *Elgin Dairy Report*:

"The October statement of the Internal Revenue Bureau issued by Commissioner Miller gives some important facts regarding the income of the government for the month of October, 1895, compared with 1894. All along the line an increase is shown over 1894. Spirits, tobacco and fermented liquors; but when we come to oleo, the great substitute, great fraud, and great counterfeit, the decrease is something worthy of note.

"Notwithstanding a portion of this decrease has come from the lesser number of parties taking out licenses for the selling of oleo, it leaves a large margin for the decrease in receipts of the two cents per pound tax. Presuming that all of the decrease comes from the taxation, it would make the output of oleo for 1895, 1,767,150 less than for 1894. We will cut off the three-quarters as belonging to the lesser number of licenses, which would make the decrease in round numbers 1,000,000 pounds.

"This shows two things—one is that a more careful execution of the national law is being had, and that the States that have prohibitory legislation against selling it for what it is not are enforcing their laws. A most gratifying result to the producers and consumers of pure goods."

Items From the Meriden Creamery.

The annual report of the Meriden creamery shows most gratifying results of the business. Manager F. S. Hurd is an expert and competent man in his line of business, and is giving universal satisfaction to the patrons and stockholders. With his services and a good Board of Directors this is the most profitable creamery in the State—especially to the patrons, who receive not only the highest price paid for milk but the skim-milk is returned free. Our farmers find the income from even an ordinary cow to be from \$40 to \$50 per year, and the better the cow the greater the profit, if the milk is delivered to the creamery. Without a creamery farmers who have only from four to six cows can make a very small amount of butter, and even that of an inferior grade, take it to the grocery and trade it off for sugar and coffee, whereas, with a creamery the milk delivered there and manufactured into a much better article of butter, realize more for it, and instead of taking it in trade receive the "hard cash" for every pound of it. A cow that brings in \$1 the old way will bring by the new way three times as much.

The Meriden creamery has upwards of 250 patrons, and below we publish statistics of a few of the progressive farmer patrons: C. D. Peck received \$134.55 for milk during December, which he secured from twenty-seven cows, an average of \$5 each. He fed \$11.87 worth of bran and 179 bushels of corn. This paid him 68 cents per bushel. He says the skim-milk returned free pays him for all the rough feed his cows eat. Figure this another way. His corn was worth 17 cents per bushel, at which price 179 bushels would amount to \$30.43; paid for bran \$11.87, making a total cost of \$42.30. Deducting this from what he received for the month, leaves him a net profit of \$92.25, an average profit of \$3.41 per cow.

J. H. Whitman says that he netted 47

cents per bushel of corn and 26 cents for oats fed to his cows that had been milked from six to twelve months. He had but one fresh cow in December.

L. S. Warner fed corn to twenty-five head of cattle in December and milked twelve of them. The milk produced paid him 40 cents per bushel for the corn fed to all cows. A. J. Ault estimates that he receives in milk 45 cents per bushel of corn fed to his cows, which is about three times as much as he could get for his corn on the market.

These interesting facts merely indicate the value of the creamery business in Meriden. Farms are better cared for, public roads are graded and bridged, cattle are bred up, all improvements are better, and every indication of prosperity is noticeable. The milk crop is sure, and there is no anxiety; as connected with wheat-raising, and besides the returns are made monthly.

Until farmers realize the milk-producing value there is in feed now wasted on their farms, prosperity will remain an "iridescent dream."—*Meriden Ledger*.

Uncolored Oleo.

If any evidence were wanting to prove that the oleomargarine business depends upon fraud for its success, it would be found in the reports of the sales in those localities where laws have been recently enacted and enforced forbidding the manufacture and sale of oleomargarine containing any coloring matter. It is the coloring of the product that enables the retailer to deceive the consumer, and the statistics of sales before and after the passage of the laws referred to, when an effort is made to enforce the law, always show a marked falling off in consumption. The Massachusetts law has only been in force a short time, but its effect on the Boston market has been very marked. During the past three months butter receipts have increased 20 per cent. over those for the same period last year, but during the same period the oleomargarine receipts have decreased 86 per cent. The receipts of butter in Boston market during June, July and August of last year amounted to 19,450,931 pounds. For the same period the year before the receipts were 15,117,587 pounds, an increase of 3,333,344 pounds. During the same period last year the receipts of oleo amounted to but 4,662 tubs as against 32,891 tubs for the same period the year before; in other words, the receipts for the three summer months in Boston were but little more than one-eighth in 1895 those of 1894. The enactment of the law was the result of a long contest extending over nearly five years, and was only eventually secured by a farm and grange organization which nearly turned the State upside down, and was only recently sustained by the Supreme court. The gratifying decrease in this fraudulent business shows that the law was worth the pains it cost to procure it.

Butter Standard.

From year to year there is a gradual gravitation of butter products toward a certain standard. New York, Boston, Chicago and other markets have had standards of their own, showing variation of color, salting and packing. With the increase of scientific knowledge in dairy matters there has come such an interchange of opinions and observations that a greater uniformity of standards becomes possible. This uniformity is extending to the smaller markets. The time is evidently not far distant when a fixed rule regulating color, amount of salt, and character of packing will become popular.

Judgment in Feeding.

A large percentage of the ills that dairy cows are liable to, come from indigestion, caused by improper feeding. There are certain foods that act in the nature of laxatives, cathartics and tonics; it is much better to use these foods than to dose the cow with drugs. Bran, beets, carrots, pumpkins, linseed meal and oats each possess some value as stimulating digestion, and some one or more of them should have a place in every dairy ration, especially during winter. When cows are at pasture the grass renders other laxative foods unnecessary.

AN IDEAL HARROW.

BY HENRY STEWART.

It would be strange indeed if all persons could agree upon the same thing. And in regard to that most important work of the farm, harrowing, it may be thought not unreasonable that some writers should miss some point that appears conspicuously to others. I consider harrowing to be the most important part of the preparation of the land for crops, inasmuch as it completes the work of the plow. And I consider that the best harrow is one that will pulverize and break up the soil after the plow, and that—in some instances and for some uses—will act as a substitute for the plow, leaving a sufficient depth of mellow soil for the seed to germinate in. And I have always been an advocate of deep sowing, even of such small seeds as grass and clover, believing that this depth of soil is a surety against failure of the seeding, by any dry time succeeding it, soon after the seed has been sown and before the roots have got a firm hold on the soil.

Harrowing is not a mere smoothing of the surface, leaving the under soil lumpy and full of holes and spaces between the furrow slices, and any harrow that merely does this smoothing, or a mere cutting of the surface, or simply scratches it, is not the kind of implement that the farmer wants, or that should be recommended to him by writers whose opinions are accepted in the way of advice. But true harrowing must consist of the breaking of all the surface clods; the cutting of the furrow slices to a sufficient depth to make a perfect seed bed; the settling of the soil together to make it compact; turning and mixing the soil so that seed sown is covered equally and completely, and cutting every inch of the surface in this way. An implement that does this answers more than one purpose, it finishes the work of the plow, and in addition to this, by its very thorough working of the soil it sifts as it were the weeds from the soil, especially the small young ones, and leaves them helpless so that an hour's exposure kills them. And even those that may be still covered by the soil, are so effectively separated from it that they perish. And thus the farmer has his work done in the most perfect manner, and as well has such an excellent finish on his land as to give it a pleasing appearance. It is quite true that there are several harrows made that will put this finish on the land, but like the whitened sepulchre, when you look under the surface, the imperfections are very apparent.

Now let us take what I call a perfect harrow, and study its work. We have a plowed field, plowed as it should be, turned evenly in depth with straight furrows if possible—but as such work as this is not often seen we will suppose there are uneven places, cloddy furrow slices, balks, and such common imperfections in the work. And we put an "ACME" Pulverizing Harrow on the land in either case. The first thing we notice is that the flat crushing spurs in the front shave off and crush the rough, uneven places, break down the slices, fill the hollows, level the surface, and

the sharp curved coulters, like small, long plowshares following, cut into the soil and turn it, leaving small furrows, as if a number of small plows in a gang had passed over the land. And on whatever soil this is done these coulters bury themselves in the soil and leave a seedbed, finely pulverized and mellow, quite deep enough to take in the seed, and afford room for the young roots to spread in and find ample food. And when the farmer has spent a lot of money for fertilizers he will be pleased to see how every square inch of the soil, down to as deep as he may wish—and as deeply as this machine is prepared and especially intended for, gets its equal share of the plant food provided for the crops. And if the plowing has been done in the most perfect manner, or if it has not, the work is done all the same, and the perfect adaptation of the harrow to its work really overcomes the imperfection of the plowing and remedies the errors of it to a great extent.

To secure this end and purpose, the "ACME" Pulverizing Harrow has a lifting lever by means of which the angle of the coulters is altered, instantly changing the action of the coulters and forcing them deeper or shallower into the soil. This point is too often overlooked by writers who describe their farm work and doubtless by many farmers who have not studied the action of this harrow especially in clay land. The perfection of an implement, indeed, to a great extent depends upon its adaptation to all kinds of soil, so that its use may be universal, and this is one of the good points of this harrow.

I have walked miles and miles behind the "ACME" Pulverizing Harrow and have closely watched and studied its manner of working, and I must say that much of what I have learned and known of the culture of the land and the preparation of it for the seed, and the growth of plants, has been the result of work with this implement. Just as my work with the plow has taught me what good plowing is and must be. And this study has given me a firm belief that a part of the study of the young men at the agricultural colleges should be just in the same way, behind the best implements that can be procured for the work to be done. And this should be done while other scientific education is not to be left undone. In fact the study of the work of a perfect implement, made on scientific principles, is nothing less than a scientific one.

Agriculture is passing through a crisis, and changes are impending. These can only happen in the way of better work and more intensive culture, thus growing better crops at less cost on less surface. And the means for this most certainly consist to a very great extent in the selection and use of the most perfect implements. It is no use giving food to an animal that cannot digest it. And equally it will be useless to give costly food to the crops in the form of fertilizers, unless the very best implements are used to prepare the soil, so that the food may be properly digested and fitted for the plants. And it may be said most truly, that while the plow is not to be slighted in the least, the harrow is to be studied even more as the implement by which the digestive ability of the soil for its food is to be mostly perfected and stimulated.

Such ills as

**SORENESS,
STIFFNESS,**

and the like,



ST. JACOBS OIL

WIPES OUT

Promptly and Effectually.



FOR COLIC, CURBS, SPLINTS,

Contracted and Knotted Cords, Shoe Bolls, Callous of all kinds, Sweeney, Horse Ail, and most diseases to which the horse is subject.

TUTTLE'S ELIXIR

is a sure and reliable remedy. It is warranted to locate lameness when applied by remaining moist on the part affected. The rest dries out. If it fails to satisfy, money will be refunded.

Dr. S. A. Tuttle, Boston, Mass.—Dear Sir: Having tested your Elixir for the different purposes for which you recommend it, would say: We use it on all horses in our department, and I must state that I have not found one instance where I have not received more benefits than advertised. We adopted it in our whole department. Men as well as horses are using it, and I cannot speak in terms of too high praise of it, as I never saw its equal.

Yours very truly,

DR. EUGENE SULLIVAN,

In Charge of the Horses in the Chicago Fire Dept.

Tuttle's Family Elixir is the best for Rheumatism and all pain. Sample bottle free for three 2-cent stamps for postage; 50 cents buys either Elixir of any druggist, or it will be sent direct on receipt of price.

DR. S. A. TUTTLE, 27 G. Beverly St., Boston, Mass.

Used and endorsed by Adams Express Co.

The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making the department one of the interesting features of the KANSAS FARMER. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. Sometimes parties write us requesting a reply by mail, and then it ceases to be a public benefit. Such requests must be accompanied by a fee of one dollar. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, Dr. S. C. ORR, Manhattan, Kas.

SORE NECK.—I have a mare that has been sore under the collar on top of the neck for two years. When she is idle it gets better, but as soon as we begin to work her it gets sore again. What can I do for her? MRS. R. F. Madison, Kas.

Answer.—There is very likely a sore or callous in the center of the sore that will have to be cut out before a permanent cure can be made. If you cannot have this done then apply a blister of cantharidine ointment to the part, which may produce a healthy action and induce it to heal.

SORE TEAT.—I have a fresh cow that lately got half an inch out from the end of one of her teats. It is very sore and sometimes we cannot get any milk from it. It looks as if the teat would never heal by milking it twice a day. Will it spoil the bag if I quit milking that teat? B. R. Elyria, Kas.

Answer.—The milk should be thoroughly drawn away as usual or it will injure that quarter of the udder. You might get the milk less painfully by inserting a milking tube in the end of the teat at each time of milking.

INJURED HOCK.—I have a horse that has a bunch on his leg where the bog spavin comes; it is soft and he is not lame. A horse doctor advised opening it and blood and matter came out. He also advised bathing with hot water and bandaging, but it gets no better. Can you give me a remedy? Wilmet, Kas. C. S.

Answer.—Your case requires an examination to prescribe safely. If your "horse doctor" is a competent man let him treat it. If the joint is open the most skillful treatment may not prevent the leg from being stiff.

People who live in the country should keep Salvation Oil, the infallible antiseptic for the poisonous stings of bees and wasps.

JOHN PETRZILEK, practical furrier and manufacturer of fine furs, sealskin garments, capes and trimmings, 336 Kansas avenue, Topeka, Kas. Mats, rugs and buggy robes always on hand. Ask for special price list. Our current prices are as follows:

Mink	35.00	1.00
Skunk	25.00	.85
Raccoon	30.00	.80
Muskrat	30.00	.80
Civet cat	50.00	1.00
Opossum	50.00	.12
Prairie wolf	50.00	.75
Otter	4.00	.80
Beaver	3.00	.35

MARKET REPORTS.

Kansas City Live Stock.
KANSAS CITY, Feb. 10. — Cattle—Receipts since Saturday, 6,688; calves, 186; shipped Saturday, 2,050 cattle, 2 calves. The market was generally 5@10c lower. The following are representative sales:

SHIPPING AND DRESSED BEEF STEERS.

No.	Ave. Price	No.	Ave. Price
19	1.42	18	1.36
15	1.42	19	1.50
21	1.26	18	1.42
19	1.42	18	1.45
42	1.39	38	1.37
1	1.50	11	1.27
2	.98	3	.85

COWS AND HEIFERS.

No.	Ave. Price	No.	Ave. Price
25	.81	13	.80
10	.82	1	1.04
14	1.07	3	.70
16	1.05	2	.90
2	1.10	3	.84
1	1.10	3	.93
2	1.10	2	.95
4	1.07	2	.88
1	1.08	2	1.01
5	.89	2	.85

STOCKERS AND FEEDERS.

No.	Ave. Price	No.	Ave. Price
4	1.15	48	1.29
4	.61	4	.70
4	.72	20	.67
1	.71	1	.37

Hogs—Receipts since Saturday, 6,365; shipped Saturday, 1,056. The market was 5 to 10c lower. The following are representative sales:

No.	Ave. Price	No.	Ave. Price
32	.18	70	.24
238	.30	70	.23
231	.30	64	.26
180	.37	64	.25
255	.35	69	.24
272	.35	65	.23
218	.35	72	.21
197	.35	5	.23

Sheep—Receipts since Saturday, 3,071; shipped Saturday, 802. The market was slow and 10c lower. The following are representative sales:

No.	Ave. Price	No.	Ave. Price
5	1.10	237	1.00
265	1.08	220	.98

Horses—Receipts since Saturday, 583; shipped Saturday, 191. There was very little going on at the horse and mule market to-day. A short sale was in progress this afternoon with a limited number of buyers in attendance, who paid about steady values for what they took. The receipts are very heavy of both horses and mules, and a good attendance is expected at this week's market.

FAILING MANHOOD

General and Nervous Debility.



Weakness of Body and Mind, Effects of Errors or Excesses in Old or Young. Robust, Noble Manhood fully Restored. How to Enlarge and Strengthen Weak, Undeveloped Portions of Body. Absolutely unfailing Home Treatment. —Benefits in a day. Men testify from 50 States and Foreign Countries. Send for Descriptive Book, explanation and proofs, mailed (sealed) free.

ERIE MEDICAL CO., Buffalo, N. Y.

Horse Owners! Try



GOMBAULT'S Caustic Balsam
A Safe Speedy and Positive Cure

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. **SUPERSEDES ALL CAUTERY OR FIRING.** Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.

THE LAWRENCE-WILLIAMS CO., Cleveland O.

\$140 buys New Piano. Organs \$49. Catalogue Free. DANIEL F. BEATTY, Washington, N.J.

KENDALL'S SPAVIN CURE. Certain in its effects and never blisters. Sold everywhere.

Chicago Live Stock.

CHICAGO, Feb. 10. — Cattle—Receipts, 23,000; market for steers 10@20c lower; cows, 5@10c lower; fair to best beefs, \$3.40@4.60; stockers and feeders, \$2.75@3.90 mixed cows and bulls, \$1.50@3.60; Texas, \$2.90@3.80.

Hogs—Receipts, 31,000; market 5c lower; light, \$1.00@4.30; rough packing, \$3.95@4.00; mixed and butchers, \$4.00@4.27; heavy packing and shipping, \$4.20@4.25; pigs, \$3.25@4.25.

Sheep—Receipts, 20,000; market 10@15c lower; native, \$2.50@3.65; western, \$3.00@3.50; Texas, \$2.25@2.30; lambs, \$3.25@4.50.

Chicago Grain and Provision.

	Feb. 10.	Opened	High'st	Lowest	Closing
Wht.—Feb.	65 1/2	65 1/2	65 1/2	64 3/4	64 3/4
May	66 1/2	66 1/2	66 1/2	66 1/2	66 1/2
July	66 1/2	66 1/2	66 1/2	66 1/2	66 1/2
Corn—Feb.	28	28	28	28	28
May	30 1/2	30 1/2	30 1/2	30 1/2	30 1/2
Sept.	32 1/2	32 1/2	32 1/2	32 1/2	32 1/2
Oats—Feb.	19 1/2	19 1/2	19 1/2	19 1/2	19 1/2
May	21 1/2	21 1/2	21 1/2	21 1/2	21 1/2
July	21 1/2	21 1/2	21 1/2	21 1/2	21 1/2
Pork—Feb.	10 27 1/2	10 35	10 22 1/2	10 25	10 25
May	10 50	10 50	10 45	10 45	10 45
July	5 65	5 67 1/2	5 65	5 65	5 65
Lard—Feb.	5 80	5 80	5 77 1/2	5 77 1/2	5 77 1/2
May	5 27 1/2	5 32 1/2	5 27 1/2	5 27 1/2	5 27 1/2
July	5 37 1/2	5 37 1/2	5 37 1/2	5 37 1/2	5 37 1/2

Kansas City Grain.

KANSAS CITY, Feb. 10. — Wheat was about a cent lower here. Receipts were somewhat larger than expected—about the same as a week ago. There was a moderate milling demand for good wheat, but low grades were very hard to sell.

Receipts of wheat to-day, 61 cars; a year ago, nothing.

Sales were as follows, track, Kansas City: Hard, No. 2, 5 cars 66c, 2 cars 65 1/4c; No. 3, 1 car 58c, 1 car 57c, 1 car 55c; No. 4, 2 cars 50c, 1 car 47c, 1 car 45c; rejected, nominally 38 1/4c; no grade, nominally 35@40. Soft, No. 2 red, 3 cars 76c, 2 cars 75c; No. 3 red, 1 car 70c, 1 car 68c; No. 4 red, nominally 60@65c; rejected, nominally 50@55c. Spring, No. 2, 1 car 60c, 3 cars 66c; No. 3, 2 cars 65c, 5 cars 64c; rejected, nominally 50@55c; white, nominally 55@65c.

The corn market was weak because of the improved weather conditions, which are expected to cause a great increase in receipts. Futures were weak. White corn for February delivery sold down 1/4 to 3/4c, though the cash price held up.

Receipts of corn to-day, 32 cars a year ago, 21 cars.

Sales by sample on track, Kansas City: No. 2 mixed, 5 cars 23 1/4c, 3 cars 23 1/2c, 7 cars 23c; No. 3 mixed, 3 cars 23 1/4c; No. 4 mixed, nominally 21@21 1/4c; white, 4 cars 25c.

Oats were firmly held. Receipts were fair, but the offerings by sample were not numerous.

Receipts of oats to-day, 13 cars; a year ago 9 cars.

Sales by sample on track, Kansas City: No. 2 mixed, nominally 18@19c. No. 3, nominally 17@17 1/4c; No. 4, nominally 15@16c; no grade, nominally 14c; No. 2 white, 5 cars 20c; No. 3 white, 1 car 18 1/4c.

Hay—Receipts, 67 cars; market steady. Timothy, choice, \$11.00@11.50; No. 1, \$10.00@10.50; No. 2, \$7.50@8.00; No. 3, \$5.00@5.50; choice prairie, \$6.25@7.00; No. 1, \$5.50@6.00; No. 2 \$4.50@5.00; packing hay, \$3.00@4.00.

Kansas City Produce.

KANSAS CITY, Feb. 10. — Butter—Creamery, extra separator, 18 1/4c; firsts, 17c; dairy, fancy, 15c; fair 13c; store packed, fresh, 10@12c; off grade, 8c; country roll, fancy, 12 1/4c; choice, 11c.

Eggs—Strictly fresh candied stock, 11c per doz.

Poultry—Hens, 6 1/4c; springs, 7 1/4c@8c; roosters, 15c; young, 17 1/4c; turkeys, hens, 8 1/4c; gobblers, 8c; ducks, 8@8 1/4c; geese, fat, 5 1/4c@6c; pigeons, dull, 60c per doz.

Fruits—Apples, fancy, \$2.50@2.75 per bbl.; choice, \$1.75@2.00; common to good, \$1.00@1.50 per bbl.

Special Want Column.

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time, will be inserted in this column, without display, for 10 cents per line, of seven words or less, per week. Initials or a number counted as one word. Cash with the order. It will pay. Try it!

SPECIAL.—Until further notice, orders from our subscribers will be received at 1 cent a word or 7 cents a line, cash with the order. Stamps taken.

DISEASES OF YOUNG AND OLD MEN.—Private and skin diseases a specialty. Wm. H. Righter, Ph. G. M. D., 503 Kansas Ave., Topeka, Kas. Correspondence solicited.

SEED POTATOES AND CORN.—Early Ohio seed from Northern stock, large and fine, at 50 cents a bushel. Ninety-day yellow dent corn, first prize at World's fair, 75 cents per bushel. Sacks free. E. L. Jones, Box 224, Topeka, Kas.

FOR SALE.—480 acres in Hamilton county, Kan., every foot No. 1. \$2 per acre; half cash, balance to suit. Address Box 48, Fairfield, Wash.

FOR SALE.—Two choice pure-bred O. I. C. boars, 6 months old. J. A. Hargrave, Richmond, Kas.

I HAVE SEVENTY-FIVE HEAD OF YEARLING STEERS for sale. They weigh about 800 pounds. C. Fincham, Pratt, Kas.

SWEET POTATOES.—Sent out to be sprouted on shares. No experience required. Directions for sprouting free. T. J. Skinner, Columbus, Kas.

40 EXTRA LARGE FINELY-FEATHERED Partridge Cockerels of the best strains, \$1.50 each. Eggs \$1.50 per setting. W. G. Foley, P. O. Box 189, Hutchinson, Kas.

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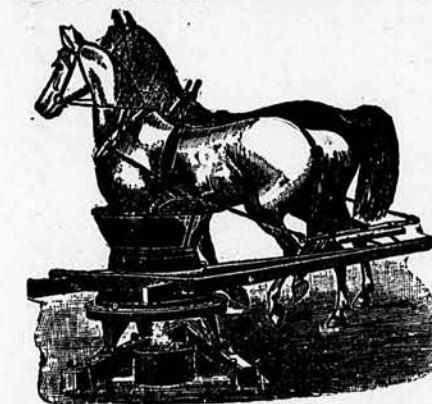
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The Poultry Yard

FOR FANCY POULTRY.

House for Keeping a Small Number of Fowls in Fine Condition.

The accompanying engraving illustrates a poultry house, or pheasantry, for keeping a limited number of fowls in the best condition. The interior of the closed portion of the building must be arranged with nests and roosting places to suit the kinds of fowls to be kept. The heavier, full-feathered breeds require only straw bedding on a low, dry platform, just off the floor, while the light breeds do better on



A FANCY POULTRY HOUSE.

higher perches. The nests, too, must be of a proper size, and placed to suit the requirements of the birds to be kept. The roofed, wire-sided inclosure can only be appreciated by those who have seen the better condition of birds so favored. If the house stands in an exposed position, the north and east side should be inclosed during winter, leaving only the south side open, as seen in the sketch. Fowls do best when given an open-sided, roofed inclosure. Especially the crested breeds require such a protection during rainy weather, as a severe wetting often proves fatal to them. Another advantage it possesses is that the plumage is not bleached by the sun after a spell of rain, as is the case with many birds running loose in changeable weather. In fair weather as large an inclosure may adjoin the house for the birds as can be afforded them, as the more freedom they enjoy at such times the better will be their condition.—Orange Judd Farmer.

NESTS FOR TURKEYS.

All the Hens Want Is a Place That Looks Somewhat Secluded.

If turkeys are kept at all they should be kept properly. Instead, however, they frequently get no attention worthy the name. A writer in the American Poultry Advocate calls attention to one serious neglect. He says that much time is annually lost and not a few good turkey eggs by the hens making their nests in far away isolated places, where they are not readily found, except by the wily crow, skunk or other sharp-eyed marauders. And this loss is all the more inexcusable as it can readily be avoided by a little ingenuity and judgment on the owner's part. He claims to know a breeder of quite a strain of Bronze turkeys who seldom got more than half the eggs laid by his ten or twelve Bronze hens. There was a large wood near his house into which his hens regularly each spring plunged and sought for nests. He complained of his loss from crows and other vermin and when told how easily it could be prevented, he expressed surprise, and was willing to make the attempt to save more of his turkeys' nests. According to our instructions he placed some rough piles of brush about the corners of the fence near the house and barn, and in the orchard. He also laid some empty barrels about in out-of-the-way places, putting straw and leaves in them, and some brush on and about them. This was done in February and again in April, all his hens were laying and all the nests were inside his own ground. The work of finding the nests was reduced about three-fourths and all the eggs saved.

All the hens want is a place that looks somewhat secluded. They do not care for a far-away nest especially, but like a place that gives some promise of not being a prominent public curiosity. If a loose pile of brush is thrown in any out-of-the-way place, say behind a clump of shrubbery and near a fence, in a corner of the fence, a barrel covered up with brush, one end only visible slight-

ly, a few boards leaned against the fence and covered with rubbish, etc., will any or all make a desirable place for madame turkey to deposit her eggs.

It is best to not disturb the nest too much when once the hen has begun laying. Let her have her eggs. If the nest has a proper quantity of straw or leaves in it the hen will keep the eggs covered sufficiently to keep them from freezing. Some hens will not mind having eggs taken out of their nests, but others will soon look for some more secluded place, the chances being in favor of being placed away out in some field or along the hill or mountain deep in the wood. Of course if the hens get broody before they are wanted to set, the eggs must be taken out of the nest and the hens broken up for the time being.

Indigestion in Poultry.

Indigestion is one of the commonest troubles of fowls and one of the most easily prevented. Grit takes the place of teeth with fowls. It requires to be sharp in order to grind up the food and prepare it for digestion. Yet how often is the supply deficient? Crushed oyster shells or sharp gravel should be accessible to the hens. Acidity of the stomach is the result of indigestion. It may be corrected by mixing very finely pulverized charcoal with the food or by keeping a supply of broken charcoal in the neighborhood of the fowls. One of the best methods of giving it is to char a couple of corn cobs once a week in the oven and then let the fowls have them to peck at. The feeding of charcoal is excellent at all stages of the hen's existence, but is particularly desirable when the fattening process is going on.

At least a sufficient number of bees should be kept on every farm to furnish honey for the table, but begin with a few hives.

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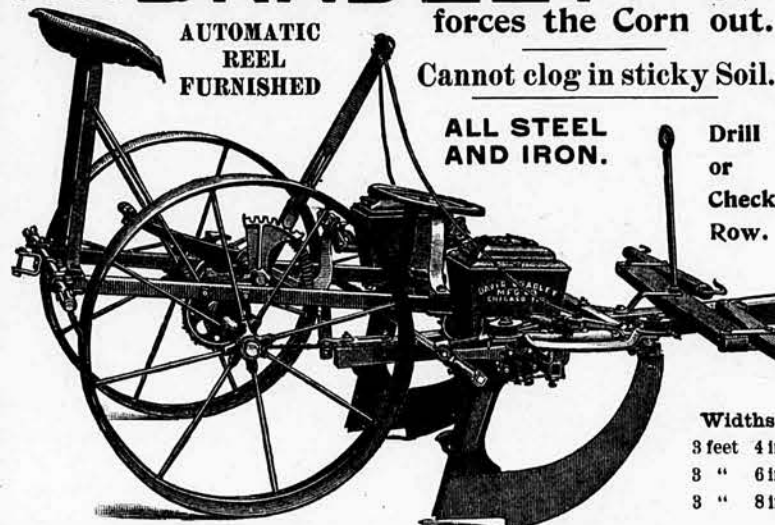
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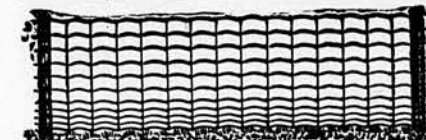
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The Kansas City Stock Yards

are the most complete and commodious in the West,

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	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts for 1895.....	1,689,652	2,457,697	864,713	52,607	103,368
Slaughtered in Kansas City.....	922,167	2,170,827	567,015		
Sold to feeders.....	392,262	1,376	111,445		
Sold to shippers.....	218,805	273,999	69,784		
Total Sold in Kansas City, 1895.....	1,533,234	2,346,202	748,244	41,588	

CHARGES: YARDAGE, Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5 cents per head. HAY, \$1 per 100 lbs.; BRAN, \$1 per 100 lbs.; CORN, \$1 per bushel.

NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.

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(Continued from page 1.)

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**PEDIGREED
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He is the sire of the two prize-winning pigs, King
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Longfellow 29785, who has the best Columbian record
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Yielding in 1895 330 Bu. Per Acre.

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thirty-five boars ready for service. As good hogs as
there are in the world. My best boars and sows are in
this offering, some of them 500 pounds and over. Come,
everybody, and buy at your own price.
Free lunch at 11:30 o'clock. Sale begins at 12:30.
Here is a grand chance for a start of the best blood
in the world. One more cholera year over with and
the past proves that we will have no more under four or five years. I pride myself that I have as
good hogs as any man. All purchasers will be required to give approved security. All bids sent to Col.
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TERMS:—All sums under \$20 cash; sums of \$20 and over, six months time without interest if paid
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ON WASHINGTON'S BIRTHDAY.
Gardner, Johnson Co., Kansas, Saturday, February 22, 1896.

THE PINE TREE STOCK FARM CLOSING-OUT SALE.

Ten Thoroughbred Short-horn Cattle, Percheron and Coach Horses, Fine
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The offering at this sale comprises ten head of extra-fine Short-horn cattle, choicely bred.
One imported black Percheron stallion, Agassias (15136) 11895.
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Seven aged mares bred to the Percheron stallion.
Six four-year-old mares out of Percheron stallion bred to the German Coach horse.
Eight three-year-old mares and geldings out of Percheron horses.
Six two-year-old mares and geldings out of Percheron horses.
Three one-year-old colts out of German Coach horse. All these colts are black, smooth and very
toppy and will match up well.
In addition to Farm Implements, will also close out my pure-bred Poultry, consisting of two dozen
Plymouth-Rock pullets, two dozen Single-comb Brown Leghorns and three dozen Silver-Laced Wyand-
dottes.

PRIVATE SALE.

My Percheron and German Coach stallions. Also, Pine Tree Stock Farm, a highly improved farm of
334 acres, one-half mile south of Gardner. The farm is all seeded down to tame grass and has water in
every field and lot. The farm can be divided into two farms, which will be sold or rented to some one
needing a breeding or dairy farm. For further particulars regarding my sale, address

J. O. McDANIELD, Gardner, Kansas.