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R. S. COOK, Wichita, Kas. Breeder of Poland - Chinas. Won seven prizes at World's Fair—more than any single breeder west of Ohio.

(Breeders' Directory continued on page 16.)

Agricultural Matters.

SOME PECULIAR VIEWS

Of Agricultural Depression, the Currency and Bimetallism.

[The following able article appears in the KANSAS FARMER simultaneously with its publication in the oldest agricultural paper in England, by courtesy of the writer, Mr. C. Wood Davis. EDITOR KANSAS FARMER.]

To the Editor of Bell's Weekly Messenger, London, England.

DEAR SIR:—In your issue of December 31, 1894, Mr. Philip R. Simmonds, who describes himself as a Kentish man long resident in America, gives voice to some peculiar and fallacious views and states conditions as existing in America which no born Yankee has had the perspicuity to discover. We are, in substance, told that:

"Agricultural depression is, if anything, worse in America than in the United Kingdom; that the area known as 'New England' is almost wholly abandoned; that while England's agriculture and some of her manufactures might be benefited by bimetallism, it must ever remain a dream, as the Empire's interests are monometallic; that the United States is on the verge of becoming, if not already there, upon a silver basis, and that already the grain and cotton exported are sold upon the silver basis of India and Argentina; that it is an error of British farmers to believe they are being ruined by American competition, as the American farmer pays much higher interest rates than do the English; that the newly-acquired British colonies of South Africa are producing £800,000 worth of gold per month, and that these new Imperial colonies, costing but a song, will, while maintaining England's gold power, accomplish all that bimetallism could. That the farmers of England must expect to see 'contract wheat' selling as low as 10 shillings a quarter, and other things in proportion. That the development of wheat culture of Argentina will be repeated in Africa and Siberia, where land costs nothing; that in the United States there are countless millions of virgin acres, and those in use are but scratched; that cotton sells so cheaply now because the growers have but lately learned to use cheap commercial fertilizers, and that when Western wheat-growers shall, as they shortly will, do likewise, wheat will sell for next to nothing, and cotton soon bring but 3 or 4 cents a pound. That Englishmen can't compete because American locomotives are capable of running from fifty to sixty miles an hour, drawing freight trains made up of wagons carrying 80,000 pounds; that the great fields are cut and threshed (?) cheaper each year; that the electric power to be generated from the waters of Niagara is to so cheapen the milling of wheat and the transport by rail and canal that Englishmen will, by 1905, wish they were 'short' at 12 shillings a quarter, and that California and other States will supply England with fruit much cheaper than it can be grown at home, but partial compensation will be found in England's ability to furnish America and other lands with blooded stock, although England must agriculturally go to the wall while imperially she increases beyond conception, and that wheat-growing will, ultimately, wholly cease in Great Britain."

These grousing utterances deserve the fate of the predictions of Cassandra, except that they are devoid of the merit of hers. How any son of Britain could indulge in such gloomy and unwarranted predictions it is difficult to conceive, but they are based upon purely supposititious facts.

New England, both industrially and agriculturally, is the most prosperous part of the republic. It is true that in each of the six New England States a few deserted farms are to be found, but they are in the sterile hilly tracts and would never have been occupied but that there was no industrial New England in early days and the land was the only possible resort of all the population not engaged in commerce and navigation. Massachusetts is a typical New England State, and in 1894 there

were 314 unoccupied farms offered for sale—not abandoned, however—aggregating 38,620 acres, or much less than 1 per cent. of the farming area of the State. This is a smaller proportion than of the clay lands unoccupied in England's Essex.

In the highly probable event that the coming elections in Britain should result in making Salisbury or Balfour Premier, we, on this side the ocean, whether monometallist or bimetallist, expect to see England inviting the nations to another monetary conference, and with a majority of Britain's delegates favoring international bimetallism it does not appear to be a wholly hopeless dream, whether desirable or not.

That America is not upon a silver basis and that her wheat and cotton are not sold upon the silver basis of India and Argentina is shown by the fact that New York's gold price for wheat and the New Orleans gold price for cotton are, plus freight and a small commission, the gold prices of Liverpool. The Kentish economist, however, seems to entertain as nebulous ideas in relation to the currency of Argentina as he does in relation to economic and social conditions in New England, or else he has forgotten that the currency standard in Argentina is, nominally, a double one of gold and silver, but in fact one of inconvertible paper exchangeable for gold in the ratio of nearly four to one, with little silver in circulation. As prices in Argentina are invariably stated in terms of gold or of this depreciated paper, and never in silver, how can American prices for soil products be determined by the alleged silver standard of Argentina?

Possibly wheat-growing may progress in Africa and Siberia as it has in Argentina, because in Africa and Siberia land costs nothing. Land may be had for nothing and yet not be worth the taking, especially for wheat production. Such at least is the case with 85 per cent. of the lands of Argentina; with 95 per cent. of the 3,100,000,000 acres of Siberia, and with more than 98 per cent. of the vast expanse of Africa.

Does our Kentish economist propose to grow bananas and wheat on the same plant? And yet this must be done if Africa is to become a great wheat-growing region, as the wheat plant will not thrive where the banana ripens. Has he forgotten that all the new British African colonies, except so much of Bechuanaland as is included in the Kalahari desert, where the annual rainfall ranges from nil to sixteen inches, lie well within the tropics, and that there are neither extended nor very productive wheat-bearing areas within the tropics in any part of the world save upon the fertile elevated plateaus of central India, and that wheat will grow in such latitudes only at considerable elevations, and rarely then without irrigation?

The Transvaal, or the Boer South African Republic—by no means a British colony—contains about all the good wheat land of Africa south of the Mediterranean seaboard, and of the lands of the Boer Republic no more than 80,000 out of an aggregate of 75,000,000 acres have yet been reduced to cultivation, although about 40,000,000 acres of the Transvaal territory is exceptionally fertile, but, including this region, all temperate South Africa has less arable land than any two of the grain-growing States of the Mississippi valley. The Boers are pastors, and neither inclined to farm their lands nor to sell them for that purpose.

Much has been written in an indefinite and "booming" way about the adaptation of Matebeleland and Mashonaland to agriculture, but the rains fall at the wrong season, and in such floods as to convert much of the country into fens that at other seasons is desiccated by drought, and the major part of the better tracts are so infested by the dreaded tsetse fly as to preclude the keeping of ox, cow or horse, and devastating locust swarms are even more common there than in the Mediterranean seaboard regions. The cereal growth of all south and central Africa, north of the Boer states, promise to be maize and durra, rather than wheat, oats or barley, and all this

region is too hot for the latter named varieties.

In his "Men, Mines and Animals of South Africa," Lord Randolph Churchill, in speaking of Mashonaland, in which he seems to include the Matebele country, says: "What is to be done with this country? Agriculture on a large scale, cattle ranching or sheep farming would be a wild and ruinous enterprise. The climate seems to be altogether adverse to colonization by small (poor) emigrants. That agriculture, while it might be a profitable enterprise for the feeding of a large resident mining population, for export could not succeed. The soil, which in no part, so far as I have seen or can learn, is of any considerable depth or richness, which over vast tracts is of the most rocky and stony character, and which, over other vast tracts, is swampy, requiring difficult and costly drainage, does not promise the cheap and easy production of abundant crops of grain. If Mashonaland, therefore, has to rely for its prosperity upon its agricultural capacity alone, it is a country without a future."

While Lord Randolph's statement of climatic and soil conditions indicates very limited agricultural adaptation, it is in close accord with the descriptions of Elisee Reclus, in the "Geographie Universelle," and of others who have visited that region since Churchill's visit in 1891.

The legendary New Zealander, who is to survey the ruins of the metropolis from London bridge, is likely to die of old age before Siberia adds largely to the bread supply of western Europe. There is much land, it is true, that can there be had without money and without price, but it is worse than worthless in most cases. Of all that expanse but a minute fraction can be termed arable, the vast remainder being tundra, swampy morass and sterile mountain. The tillable tracts, mostly small, are scattered far and wide and do not, in the aggregate, exceed in extent the cultivable lands of the States of Kansas and Nebraska. The greater part of Siberia's arable lands are already occupied by the Russian emigrants who have been seeking homes in Siberia since its conquest by Yermak, near the close of the sixteenth century, and it is still about as much as western Siberia can do to feed the people of eastern Siberia, which is, and will, probably, remain for all time, a dreary and inhospitable waste.

Yes, there are many millions of virgin acres in the United States, but they are hardly countless, and 95 per cent. of them will long, if not always, retain their virgin character, as they constitute the arid plains, sterile mountain ranges and waterless plateaus, where agriculture is possible only upon the very small proportion susceptible of irrigation.

It is possible that, ultimately, and at great cost, water may be secured to irrigate 10 per cent. of the 800,000,000 acres constituting arid America, but more probably 5 per cent. will more than cover all of this vast waste which can be watered artificially. Our Kentish friend's virgin acres are far more sterile than even the lower tracts of western Dakota, Nebraska and Kansas and eastern Colorado, bordering the more arid and more elevated virgin acres, from which the population, after successive years of crop failure, are now fleeing. Those thus deserting the drought-stricken areas of the lower plains are betaking themselves to districts of more regular and copious rainfall in Iowa, Missouri Arkansas and Tennessee, and some to the Atlantic seaboard States as far south as Florida. That is, owing to the complete occupancy of the available arable lands the movement of population has been reversed and *would-be farmers* are fleeing from the neighborhood of Mr. Simmonds' virgin acres as though they were plague-stricken.

Until profound climatic changes shall have obtained over the great continental mass, the millions of virgin acres of the great central plains and plateaus are not likely, by the abundance of their cereal products, to either test the carrying capacity of the railways or reduce the value of arable lands lying in the central Eastern

States or in England. For agricultural purposes 95 per cent. of these virgin acres are even more worthless than Lord Randolph Churchill pronounces those of Mashonaland.

There can be no doubt but that the use of commercial fertilizers in the thin lands of the cis-Mississippi cotton States has aided in maintaining their fertility, but it is very doubtful if their productive power has thereby been increased in any measure. Such at least is the opinion of the most observant Southerners, who hold that in such States the farmer is, by reason of the added expense of fertilization, rendered incapable of competing with the cotton grown without fertilization upon the rich lands of Texas, where the area under cotton has expanded greatly in recent years. Cheap cotton results from such expansion rather than from the use of fertilizers east of the Mississippi.

It is altogether improbable that Western wheat-growers will soon use commercial fertilizers. In fact, they make no use, in a majority of cases, of the manure produced upon the farm. The very use of commercial fertilizers, whenever it occurs in the Western wheat-growing regions, will imply a high price for wheat. The British farmer can't now compete with the wheat-growers of North and South America, because he is forced to expend from 40 to 50 shillings an acre, or from 1s. 4d. to 1s. 8d. per bushel for the fertilizers which enable him to secure yields averaging thirty bushels an acre. How can the Western farmer, who sells his wheat at 35 to 40 cents, or from 1s. 5d. to 1s. 8d. a bushel, assume the burthen of such additional expense, especially if Mr. Simmonds' prediction that he will lay down wheat in England at 10 shillings a quarter, is to be verified? That is, he would, in such case, put out from 40 to 50 shillings per acre for fertilization in order to secure a possible thirty bushels that would, delivered in England, give a gross return of 35 shillings. Is this the new logic as well as the new political economy?

But then it appears that Mr. Simmonds is talking about "contract wheat," and this variety requires no land nor yet fertilization other than that found in the money of the victims of the dealers in "options" and "futures," and judging from his remarks about being "short" at 12 shillings, this is the variety with which the gentleman is most familiar. As much as 44,000,000 bushels of the "contract" variety has been produced at a single session of the New York Produce Exchange, and it costs but an eighth of a cent a bushel in moderately fair seasons.

Possibly the electric power to be generated by the waters of Niagara will cheapen the milling of wheat, and reduce the cost of transport by canal and rail, but it would seem that there is but little margin for reductions below the present cost of milling at Minneapolis, or that much abatement is possible in the water rates current from Chicago and Duluth to Liverpool via New York and Montreal, or even via New Orleans from St. Louis; and in any event, we may assume that the Briton will retain enough of his commercial and mechanical cunning to meet such competition, else how is Britain to "increase imperially beyond conception," when her lands and agriculture have gone to the wall?

The future of English agriculture, as painted by our Kentish friend, is a very dark one, but it is an illusive one. In fact, the picture should be painted in rather bright colors.

America is the Pandora's box from which have emerged nearly all the woes of the cultivator the world over.

Of additions to the world's grain and potato-bearing lands, between 1870 and 1885, aggregating 93,000,000 acres, no less than 74,000,000, or 80 per cent., were contributed by America, mostly in the treeless plains of the Mississippi valley. Of the 32,000,000 acres, then, added to the world's wheat-bearing area, some 20,500,000 were American. Since 1885, however, America has contributed but 25 per cent. of yearly additions, averaging 2,200,000 acres, as against a world average of 6,200,000 for

the preceding fifteen years. The meagre world additions of the last nine years are due to the practical exhaustion of the arable areas of America about 1885, and nowhere else in the world are lands available to offset this reduction in the contributions of the United States.

In 1870, or for the nine years ending with 1874, the world's wheat-bearing lands were well proportioned to the consuming population, as is shown by the sufficiency of the supply and the prices current. Thanks to the enormous development then going on in the Mississippi valley, such area became excessive before 1880 and prices fell, and great stores of grain were accumulated that were not dissipated until the close of the 1890-91 harvest year, when prices rose at once.

Since 1885, owing to America's inability to add largely to the productive area, the world's bread-eating populations have largely outrun the world's additions to the food-bearing acres and prices would have remained high after the rise in 1891 but for the extraordinary world yields of the last four years, mostly, however, attributable to the exceptional acre yields from the fields of the United States in 1891 and 1892. Such prolific yields had not been known for more than thirty years, and permitted such immediate and voluminous exports as sufficed to meet Europe's current requirements and the accumulation of such stores as enabled America to export more largely during the past two years than would have been possible but for such accumulations. Now, however, the great accumulations have about disappeared (other than in the American "visible"), little wheat remains in the hands of American growers and the promise of the future is bright for the British landlord and cultivator who will share in the prosperity before all who contribute to the world's requirements for food, simply because the food-bearing acres are now deficient, whereas they were long excessive. The change from a condition of too great to defective power to produce has, however, been masked and obscured by the remarkable acre yields of the last four years.

The ascertained facts are, that in fifteen years the wheat-consuming populations have increased from 413,000,000 to nearly 490,000,000, or 18.5 per cent., as against an increase of less than 4 per cent. in the wheat-bearing acres; that the aggregate world wheat product of the last four years has been 494,000,000 bushels greater than would have resulted with acre yields no greater than the average of the last fourteen harvests, and 830,000,000 bushels greater than would have been harvested had the yields an acre been no more than the average from 1880 to 1890; that the world's wheat requirements augment by progressively greater yearly aggregates, this year's increase exceeding the net product of 2,500,000 average acres, while additions to the world's wheat-bearing acres have, since 1880, averaged less than 500,000 acres yearly, or less than one-fifth of added requirements; that but once in fourteen years has the year's world harvest equalled world requirements for the 1895-96 harvest year, or 2,525,000,000 bushels; that in 1892-93 the world yield an acre was nearly a bushel above a fourteen-year's average; that aside from the American "visible" and the invisible of Russia the world's stores of wheat are a great deal smaller than in any January in the last twelve; that the enormous American crops of 1891 and 1892, wholly due to exceptional yields an acre, have enabled the United States to export in the last forty-two months 660,000,000 bushels, as against exports of 377,000,000 bushels in the preceding forty-two months; that Europe's yearly requirements are now 67,000,000 bushels greater than four years since, and available extraneous supplies, with average acreage yields throughout the world, much less than four years since, because of greatly increased requirements in other countries, with little increase of the acreage and power to produce, and that but for extraordinary supplies of 283,000,000 bushels from America since July 1, 1891, scarcity and high prices would have

long since obtained and the British landlord and farmer have been well along on the way to the prosperity which is in store for them with all others who contribute to the world's food supply. In store for them because lands are not available to make up a deficient wheat acreage of more than 16,000,000 acres now existing, and because the consuming population augments by ever-increasing yearly aggregates and by no conceivable device can acres be multiplied.

Should world yields an acre be no greater any year than in 1881-82, 1883-84, 1885-86, 1886-87, 1889-90 or 1890-91, that year's harvest would be from 250,000,000 to 330,000,000 bushels less than present world requirements. Climatic stability and the relentless law of averages assure such a result in some of the nearby years. Two world harvests, giving no greater yields than the average of the last fourteen years, will at once restore prosperity to the world's food-growers, and the scarcity of available lands, with the existing acreage deficit, assure an unlimited period of meager supplies and exacting demand. There are no more agricultural Americas to be exploited.

Peotone, Kas. C. WOOD DAVIS.

The Stock Interest.

THE KANSAS STEER AND HIS BRILLIANT FUTURE.

By Hon. T. W. Harrison, of Topeka, read before the annual meeting of the State Board of Agriculture, January 10, 1895.

The Kansas steer—we used to know him in the old days as an aggregation of bones, hide and horns. He came from the sun-burned, sand-swept plains of Texas, and his most commendable quality was his ability to stand a drive of a thousand miles. His pedigree was brief and emphatic, a blizzard on one side and a cyclone on the other. His flesh, what little he had, was dry and sinewy. His bones were a merchantable commodity by the ton. His horns were like crowbars, and his hide was a staple for the thickest sole-leather. He could outrun a locomotive engine. No fence would hold him, and a stampede was his grandest holiday. He was born a stocker and a racer, and remained such to the end of his days. No handling could tame him, no feeding could fatten him, and no one ever cared or dared to dehorn him. After his long drive over barren plains, with little feed and much less water, he was rounded up in Kansas, and the hills around Abilene and Dodge City are reverberating still with his hideous and endless bellow. His drivers and keepers partook of his wild, untamed and untamable nature, and became veritable cowboys of the worst type, who needed but a wink as an invitation to drink, while a frown was sure to be answered by a deadly shot. Like their steers, they died with their boots on, and "boot hill," at Dodge City, is still pointed out, with a mysterious nod, by the old settler to the "tenderfoot" as the place where hundreds of them were buried as they fell with their boots on and spurs set ready for the mount and ride into the great unknown. Millions of these steers were shipped and billed from Kansas, and went into the markets of the world as Kansas steers and took along with them their unearthly bellow, their terrific horns and their inherent and overflowing cussedness, and left behind them a ruined reputation for good beef, which it has taken long years and unceasing toil to overcome. After a starvation drive of a thousand miles followed by a worse starvation ride of another thousand miles over a rough track in old-fashioned cattle cars, tied together with a maximum of slack, pinched with hunger, galled with thirst, and goaded with a fiendish pike-pole, keeping every muscle in intense strain until all the flesh was hardened into gristle, and the skin cleaved fast to the bones, in which condition they went to the slaughter and their blue jeans roasts and corduroy steaks went to the table as Kansas beef, to the entire destruction of our reputation as a beef-producing State and the utter ruin of the consumer's record for profanity. I heard of a man

who choked to death at the breakfast table in St. Louis, trying to swallow a piece of that kind of Kansas beef. The coronor brought in a verdict of death from heart failure; probably correct, for the poor man undoubtedly lost all heart in that heroic struggle for the mastery, and preferred an honorable death by choking to an ignoble surrender to that unconquerable steak.

All this is reality of the past, which, as a meat-producing State we have been obliged to overcome and live down; but while doing so we have also been obliged to suffer in silence to an unknown and inconceivable extent from the stigma which was fastened upon us by the experience of those early days. But the higher the mountain, the more delightful is the valley beyond, and the more difficult the obstacle, the more signal will be the success when it is overcome. And now old things have passed away, and new things have come to pass. The steer of the olden times no longer profanes the reputation of our fair State. The Kansas steer of to-day is no worthless son of any such ignoble sire. The steer of to-day was bred on Kansas soil, grown on Kansas grasses, invigorated by Kansas air, nourished with Kansas water and fattened on Kansas grain. He is a beauty on all fours. He commands the admiration and the cash of the civilized world. He is a daisy at 6 cents a pound, especially when he weighs a ton, as he may do and ought to do when given a fair chance.

His brilliant future. The natural advantages of Kansas are the best in the world for the production of the highest grade of beef. The mild climate, equal temperature, just frost enough to insure good health and full vigor, the bracing air, pure water, nutritious grasses—clovers and blue grass in the east and inexhaustible and incomparable alfalfa in the west—with the fattening grains so easily raised, form a combination of natural advantages and resources unequalled and unknown anywhere else on the face of the earth, or even under the earth. Some of them may be imitated or approached in other localities, but that blessed combination of advantages exists only in Kansas. The best beef cannot be produced in Greenland nor Manitoba. Sixty degrees below zero is not favorable for that purpose. The steer is a ruminating animal, and he cannot chew his cud in icicles, nor will he thrive where every year there are nine months of hard winter besides three months of very cold weather. Blubber and fat may be produced by the walrus and whale, and sinewy meat by the arctic moose, but they are not beef nor a substitute for beef. Nor can the best beef be produced in the torrid zone. It may produce good elephants, boa-constrictors and orangoutangs, but it is not suitable for the production of the best beef. The home of perpetual fevers and the land of constant miasmas and malaria are not adapted for the production of the best animal meat for human food. Neither extreme of climate is adapted for that purpose. The best beef can only be produced in a medium climate and where the proper food for its production can be fed to the animal right where it is grown. It takes something more than a frame of bones covered with a hide and filled with a stomach to produce good beef. It also requires the right kind of food, and the power to assimilate that food and convert it into rich, juicy and tender meat. You must have a good animal and good food and a climate and surroundings that will enable the animal to get the most and the best possible results from that food. This cannot be done with either of these elements very far apart. They must be brought together, within the polar contact, so to speak, and then the unknown and indescribable functions of nature evolve the desired results in the production of the best beef—Kansas beef.

Ten years ago, in a chase after fleeting health, I anchored temporarily at Las Vegas, N. M. The beef on the table at the hotel was excellent and delicious. I had noticed the cattle in that part of the country, and saw at a glance

that no such meat grew on their bones, as was served in that hotel; and I said to the landlord: "Where do you get your meats? The cattle in this part of the country do not produce any such meat as you serve." "Oh no," he replied, "that is Kansas City dressed beef. It is shipped to me in refrigerator cars, and is much better after it is a week or ten days old." It was Kansas beef.

Six years ago I was returning from Washington by the southern route, and travelled in company with a Tennessee stockman, from Knoxville to Memphis, where we stopped for breakfast. The beefsteak was juicy, tender and sweet, and I thought I recognized it at once. I said to my friend: "This is an elegant steak; where do you suppose it came from?" "Yes," he said, "it is a splendid steak; we raise it here. We produce as fine beef in Tennessee as anywhere on the globe." "Well, my friend," I said, "I believe this is Kansas City dressed beef." "Oh, no," he replied with much earnestness, "you are surely mistaken; we never get any beef from Kansas City down here. We raise and fatten all our own beef, and send a good deal to Eastern markets besides." "Well," I said, "we will leave it to the landlord." "All right," he replied, and when we paid our bills I asked the landlord where the beef came from that he served for breakfast. "From Kansas City," he replied. "It is Kansas City dressed beef shipped here in refrigerator cars, and is the best meat we have ever had from anywhere." It was Kansas beef.

The day of the Texas ranger and plains racer is past and gone. The Kansas steer is now native born, wonderfully improved in size and quality over those that came from the "drive" in the early days. He is now rapidly forging to the front at home and in foreign markets in spite of that villainous piece of legislation called the Gorman bill, which, regardless of party politics, struck the most dastardly and deadly blow at the prosperity of the American farmer that this country has ever known.

The Kansas steer understands his advantages of mild and healthful climate and choice and luxuriant feed, and he appreciates and responds to them with an alacrity and heartiness which is not only encouraging but wonderful. If he does not weigh a ton and command the highest price in the best markets of the world it is not his fault. With proper care his capabilities are almost unlimited. Good breeding improves his size and the quality of his flesh. Dehorning improves his docility and the temper of his keeper. It also makes the steer more easily kept and adds to the bank account of his owner. I believe there is nothing in the Gorman bill against dehorning—an evident oversight, for it seems to have been designed to include everything that is vicious and bad, and leave out everything that is advantageous and good for the American farmer. Despite adverse legislation, early bad reputation, pleuro-pneumonia, lumpy-jaw and tuberculosis, Kansas beef is rapidly acquiring a reputation, both at home and abroad, for its excellent qualities, and it must certainly have a brilliant future. Its quality is unexcelled, and quality commands the price. In most commercial commodities the tendency is to reduce the quality in order to cheapen the price. The great competition of the present day in most articles demands an inferior quality in order to lower the selling price. But in beef the competition and strife are directly the other way. The market demands the highest quality of meat and pays the highest price for it. The demand is always for the best, and the top of the market always brings more than the average price.

I recently visited some of the packing-houses in Kansas City, where they were killing export beef—fine, large, well-rounded steers that dressed 900 pounds each. They were well bred, had been dehorned in early youth, were grown on choice pasture and quickly finished off on Kansas grain. Their meat was beautiful to behold. When properly cooked it would swim in its own juices and simply melt in

the mouth of an epicure. It was raised in Kansas, brought the highest price in the market and went direct to Liverpool and London to grace the tables of lords and nobles, who know good beef when they taste it and are always willing to pay a good price for a good article.

There need be no fear of an over-production of good beef. The demand for it will increase, and so will the price. The \$100 steer will always find a ready sale. He will always be in brisk demand to help round out some shipment or to supply some special market, and will always bring more than the average price. Knotty and skinny scrubs may be and ought to be a drag in the market, but the choice, heavy steer will never linger in the hands of his producer. There is no good reason on earth why Kansas should not be the home of the \$100 steer. The natural facilities and advantages which we have are constantly inviting us to produce him, and the market is offering us premiums for his production. There is no good sense in taking a bunch of scrubs to market and selling them at \$20 to \$30 each unless it is to get rid of them so as to replace them with a better grade. It is far better to raise one-half or even one-fourth the number and make them bring from \$75 to \$100 each. It costs just about as much to grow the scrub as it does to grow the prime steer, and the scrub has no foundation for putting on a heavy weight of flesh after he is grown. Kansas ought to be the home of the \$100 steer. He can be produced here easier and surer than anywhere else on earth. They are being produced in limited numbers in some other States. Recently 515 head, averaging 1,800 pounds, were sold at Paris, Ky., at an average of over \$110 each, and brought the producer \$60,000 in a solid lump. They were bought for export, and went direct to England and France. Kansas can produce just as good steers as those, and when we do we get as good a price for them. The inducements offered for doing it are great and the profits are three-fold—the best quality, the best price and a reputation for producing the best, which is more important and more valuable than either of the other two. The days of the ranger and racer are past. We have no further use for the steer that could run twenty miles to pasture and twenty miles back to water the same day. Razor-back hogs that have to be lassoed and corn-crib steers that must have their ribs chinked before they will hold shelled corn, will take no more blue ribbons in Kansas. We want the animal that will eat and drink and then lie down and rest while he digests and assimilates his food. We must have more concentration and more intensity in the production of beef. It is far better to raise one steer that will weigh a ton and get \$120 for him than to raise two that will only aggregate a ton, and then get only \$80 for both of them. It is better for the producer, better for the purchaser and consumer, and far better for the reputation of our State. The *hundred-dollar steer* should be the standard for Kansas. We have all the capabilities for producing him, and the best markets in the world are clamoring for him. Emperors and kings open wide their palace doors for his reception and bid him a most hearty welcome, and all nations cry aloud for him and will not be comforted without him. The wise man wrote: "Seest thou the industrious man? He shall stand before kings." We might add: "Seest thou the Kansas steer? He shall *smoke* before kings;" and the kings and nobles not only tolerate, but invite and demand his savory, smoking presence.

Kansas people are quick to see and quick to improve every opportunity offered them. Our golden opportunity lies in simply making the most out of the natural advantages which we have, and in the production of beef those advantages point unerringly to the hundred-dollar steer. With such a standard, and with our capabilities and advantages and the inducements which are offered for producing him, the Kansas steer must, indeed, have a most brilliant future.

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Irrigation.

IRRIGATION CONVENTION.

The Inter-State Irrigation Association will hold its third annual meeting at Kansas City, on Tuesday, Wednesday and Thursday, March 26, 27 and 28. It is expected that this will be the largest irrigation meeting ever held.

FISH CULTURE.

By Capt. John H. Churchill, of Dodge City, read before the annual meeting of the State Board of Agriculture, January 10, 1895.

This year will see thousands of individual irrigating plants erected in Kansas. The reservoirs should not only be built for the distribution of water over the ground, but as a pond to grow and breed fish of different varieties for family use, and the surplus to be sold the same as any other product of the farm. If you are going into the "irrigation plant" business, work for all that it is worth, get the highest per cent. of profit and pleasure out of your investment.

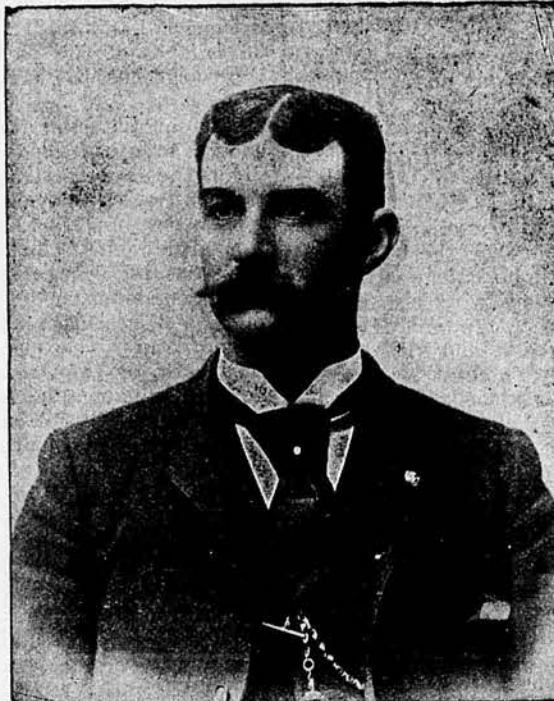
In going into any new business, we should be careful at the start to avoid mistakes. Be sure that you have a solid foundation to work from. In building a reservoir, if possible, make it circular in form, leaving an island in the middle. My preference for this style of pond is that while the water can be drawn off as easily as from any other shape, it is much better for the fish; a circle having no ends or corners, it gives the fish more natural conditions, such as are found in rivers, lakes

same level in the pond. The spawn of the fish will get into these boxes, attach themselves to the contents, and mostly all hatch. Much of the spawn on the outside of these boxes or guards will be lost on account of the water being drawn down, leaving it exposed along the banks and shallow places.

When it is possible, in order to get the best results, I believe it is best to have a small breeding pond by itself, where the water will remain at the same level during the breeding season.

The water coming into ponds by pumps, having never been exposed to the air or sunshine, is dead. It should, therefore, before entering the reservoir, be livened up or aerated. This can be done by letting the water run to the pond, say ten feet or more, over rubble, or small stones. Dashing over this short course will be very beneficial. Where that is not feasible the water should run through a trough open at the top, and a drop of say four feet to the water. It will get good aeration that way.

Having completed the pond, the next essential is to make it hold water as cheaply as possible. I completed a new reservoir on my farm, November 20. The site was the highest knoll in an alfalfa field. The dirt to form the sides was all taken from the inside, leaving the bottom perforated by the broken-off stumps of alfalfa roots. As you can imagine, with these running to the wet sands below, it was no little



J. H. CHURCHILL, DODGE CITY, KAS.

and large bodies of water—that is, they can swim to their content without obstruction by going around the circle. It should be so built that, if it becomes necessary, the water can be nearly all drawn off, if not quite, to clean out or destroy turtles when they become too numerous. Even turtles know a good thing when they find it, and are great lovers of fish food. One part of the pond should be sloping, and quite shallow, so that the young can get away from the larger and older fish, and hide in the rushes and grasses that grow in the shallow water. Some varieties also require shallow water to spawn in. There should be artificial shade made in places. Water plants should be plenty to make shade, and throw off poisonous gases and take in oxygen. Lotus is highly recommended by the United States Fish Commissioner as one of the best aquatic plants for ponds. The large leaves that come above the water especially adapt them for this purpose, besides they have a very beautiful flower which is sweet and fragrant. There should be one deep place in the pond for the fish to go into winter quarters, where they will not be disturbed and will be out of danger of freezing.

In breeding and raising fish in ponds, the water of which is often changing its level, by drawing off to irrigate, it is necessary to have some floats, say boxes with the bottom knocked out, filled with twigs, grasses, or plants, so arranged that they will fall and rise with the water, always keeping the

work to tighten it up. I turned in 200 head of cattle every night to water. By going through it and around the banks they puddled it some, but it would still drop a foot in a day, when the mill was shut off. I then determined to try the alfalfa cure. It is good for most everything in our country. We let the water seep away till there was only a few inches through the center, and then hauled in a load of alfalfa straw, scattered it all over the muddy bottom, turned in the stock and fed them there for about ten days. At the end of that time opened up the mill, and, am happy to say, found the experiment was a complete success. The chaff, empty seed pods and straw accomplished the desired result with little expense. So well did it do the work with the packing by the cattle, that after pumping the reservoir up, when the cold wave came the 25th of December, and through the following week the ice froze some eight inches thick, the water dropped only two inches. The ice was sold to an ice dealer in town at a price which made a large per cent. on the cost of the whole plant, and there are chances ahead for another crop for this winter. I presume wheat or oat straw would do just as well to tighten up a reservoir. On many farms there are springs

that can be utilized as a water supply for a pond, and a few days' work is all that is necessary with plow and scraper to make a paying investment at your door. On other farms there are draws or sloughs which can be easily and cheaply dammed. Worked at a day now and then, when completed they will hold the storm water. In such ponds be careful to build a waste-way for the escape of surplus water. It should be built out beyond the side of the dam. By so doing you save your fish in a flood.

Having your pond built to your satisfaction, the question confronts you: "What kind of fish shall I stock up with?" I have not the time to go into details or dilate upon the merits of this or that kind of fish, so I shall condense as much as possible. Carp have been a much advertised fish. They sell in the Chicago and Kansas City markets from 8 to 10 cents retail, and as long as they sell at those prices there is profit in growing them. Eaten late in the fall, they are fair if you don't object to bones. The meat is sweet and rather soft, and on the whole is superior to no fish at all, to the average farmer, to which class I belong. I advise putting some carp in your pond as a starter. They grow fast and are prolific and make good food for the better varieties of fish. I find by correspondence and interviews with prominent fish-growers, and the United States Fish Commissioner, that they recommend black bass as the first of fish, for sport, profit and eating qualities, and that crappie comes next, with channel cat a close third. In Missouri, I am creditably informed, ponds have mostly been cleaned out of all fish except these varieties. Bass, crappie and channel cat sell in Kansas City for 15 cents per pound retail. My brother farmers, do you know, if you possess a windmill, or have a good water supply from other sources, you ought to grow as many pounds of fish, and more, as there are pounds of butter made in the house? The fish will outsell the butter and there is no milking or tiresome work for the good housewife attached to it. Instead of grumbling at the weather, crops, etc., build a pond, stock it with fish. The weather may change while you are at work on it, the wind blow more favorably.

If you have bass in your pond, build a nest for them to spawn in. Where the water is four or five feet deep, take some two-by-fours, eight feet long, sharpen one end and drive, leaving two feet above the water; drive them eight feet apart. Make a rough frame above the water and cover over with rough boards. This will make the shade. The bottom should be coarse gravel or rubble stone in the nest. The bass will spawn here and guard the nest against other fish. They will keep mud from settling on the gravel and eggs by the movement of fins and tail. Spawn that is thrown out on the muddy bottom are mostly lost, as they are soon covered by the sediment. Channel cat is also another fish adapted to ponds and reservoirs. I have them in my ponds that weigh already seven to eight pounds. The meat is firm and of good flavor, free from bones and is in great demand at good prices, at times as high as 20 cents per pound. Perch and large sunfish are also not to be despised. Even the common mud cat or bull-head is not a bad fish at all. Carp

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and these small catfish are improved in flavor by putting them into a tank of clear water for a few days. These mud cat sell out in our part of the country, in the towns, for 15 cents per pound, and the supply is very limited; on sale in the stores once a week. These are the principal varieties I advocate, that I am growing myself, and they seem to thrive. These different kinds of fish are growing in two different ponds, but are connected so that they all get together. They might do better in separate ponds, but not many of us can afford, at the start, to go in extensively. Indeed, it is best to go slow and learn. It will take some care and attention. No great good can come by lying supinely on our backs and hugging the delusive phantom of hope that something will turn up. Noble, manly action is the price of liberty, of happiness, of a competency. Stock your ponds with the varieties of fish I have mentioned, if you can get them. The weaker and poorer breeds will go to the wall and furnish food for the fittest. The cat, carp and sunfish can be obtained from streams and ponds already stocked. To obtain a start in bass and crappie, you should immediately apply to the United States Fish Commissioner, Washington, D. C., for blank applications, which they will forward. After having filled out the same, by answering the questions it contains and the kind of fish you want, send it to your Congressman or Senator for endorsement, who will transmit it to the Fish Commissioner or return it to you to send in. You will then receive notice that your application is on file and that you will receive the fish in the next distribution when the car will make a trip through the State. You will be notified by telegraph, twenty-four hours ahead, when the car will be at your nearest station. If you live off the line of travel of the car, the fish will be forwarded in a pail by express from the nearest point. I have no fears, knowing the general get-there spirit of the Kansas people, that if the farmers will only take more of an interest in fish culture, build ponds and reservoirs, the fish will be found to stock them.

I hardly know why the people of this State have not more generally taken an interest in the growing of fish for food, unless there is not enough wind in it. Let some schemer come along with a blooming, booming idea to vote bonds for a new railroad, sugar mill or gas well, and he has, in times past, posed, for a while at least, as a public benefactor, and got all he asked for, when right at your doors you could have made a little investment without the need of bonds and owned it all yourself, a health and food-giving investment for yourself and family, an added value and attractiveness to your farm and home. Nearly, if not all the States, have a Fish Commission and a Commissioner, and a certain amount appropriated by the State Legislature for the distribution of fish, and the spreading of knowledge and advice, that will induce the people to take hold of this industry.

Mr. G. H. Lamson, of the United States Fish Commission, lately informed me that he knew less of the Kansas Fish Commission than any State through which he traveled. This should not be. If there is a State in the Union where the people should have some of the luxuries of life, that State is Kansas. There should be a live, energetic Fish Commissioner with sufficient salary for him to give his time and do good work. An appropriation for State ponds and a hatchery should be made. Other States have them, why not we?

I am proud of Kansas, of the record she has made, proud of her many notable men and women, and of her public institutions. Will be proud of her magnificent capitol building when completed, as all patriotic Kansans will be, but prouder still will you and I be when we can meet here and know that throughout this State the people are happy, prosperous and contented. The taxpayers are looking to the political leaders to fulfill their promises, to better the condition of the agricultural classes. They are looking to this State

Board of Agriculture for light, for knowledge in everything that pertains to prosperity on the farm and a more successful manner and mode of living. Irrigation has come to stay, because it is a success. It has already gladdened the heart and brightened the pathway of many a Western farmer. It means a surety of a living, a competence in the future. With the introduction of fish culture on your farm in connection with your irrigation plant those desirable results will come quicker. It will not only add to the beautified home, surrounded by groves, orchards, vineyards and gardens, which the transcendent power and influence of water will make possible, but it will bring a new food to your table, a change of diet, which in all ages and climes has proved beneficial to the human family.

In 1888, Illinois, at an expenditure of \$5,000, covering a space of seven years, saved the agricultural districts \$105,000 on one variety of fish. Take that one home with you. While I believe the State ought to make a generous appropriation, and push the development of the fish industry vigorously, and encourage the people to take it up, and while I believe it is right and proper to discuss it at the meetings of the State Board of Agriculture, because it is of and for the farm, yet, after all, it will, it must depend upon the individual if it be a successful enterprise on your place. The Commissioner can furnish you with counsel and information and perhaps young fry. The Secretary of the State Board of Agriculture may encourage you, say it is a good thing, go ahead, but upon your own individual efforts carrying out the conditions imposed, depends whether it be one of the best or poorest investments on that farm.

Do not delay. Delays are dangerous in the pursuit of success and happiness. Build your own ponds and reservoirs, start the wheels turning in the Kansas breeze, dam the draws, corral the springs and creeks when available and practicable. The outlay is small, the profit large if cared for properly. Keep the live stock away from the reservoirs and keep the water fresh; bring the health-giving, muscle-forming, brain-developing fish food to your doors. Bring the additional luxury and blessing to your home—a well-filled ice house. To the farm it should be a necessity as well as a luxury. Bring to your home all that an irrigation plant means, with its well-stocked reservoir, its beautiful surroundings, with its possibilities and its certainties for delights to both young and old, and you will have made a wonderful start toward bettering your condition as a progressive farmer. Who can tell, when this old, yet new to us, form of agriculture has reached its fullest development, with all the blessings it implies, that we shall not be proud above all other things, as we meet here, that we live among a happy, prosperous and contented people, that have devised the ways and means to conquer the drought and hot winds, overcome the altitude and climatic conditions and made the pathway through difficulties to the stars successful, triumphant?

Farmers' Institutes.

Institutes will be held at the places and dates as stated below and the Agricultural college will be represented at these institutes by the members of the faculty named:

Haven, Reno county, February 21 and 22, Dr. Mayo and Mr. Burtis.
Cherryvale, Montgomery county, February 21 and 22, Professors Popenoe and Georgeson.

IRRITATION OF THE THROAT AND HOARSENESS are immediately relieved by "Brown's Bronchial Troches." Have them always ready.

Forestry Notice.

Those wishing to receive a share of the free distribution of seedling forest trees by the State Forestry Department can make application at any time previous to March 1, 1895. The report of this department is now in the hands of the State Printer and will be furnished applicants as soon as printed. Owing to a lack of sufficient printing fund they may not be finished before the last of January. County papers please copy.

E. D. WHEELER,
Commissioner of Forestry.
Ogallah, Kas.

Publishers' Paragraphs.

M. C. Gates, of Dennison, Kas., offers a farmer more for the money than any other man we know, and the best of it is that he's as "straight as a string" and will do exactly as he agrees. See his advertisement in this paper.

Dr. Parkhurst's first article to women in the *Ladies' Home Journal* has proved so popular that the entire huge edition of the February issue of the magazine was exhausted in ten days, and a second edition of 45,000 copies has been printed.

No house is better prepared than the Kansas City Grain and Seed Company to furnish farm and garden seeds in large or small quantities promptly on short notice. A car load recently shipped to Hastings, Neb., brought back a most flattering letter showing the utmost satisfaction. For seed corn, cane seed, Kaffir corn seed, write to the Kansas City Grain and Seed Co. The long and successful experience of the manager enables him to always give satisfaction.

THE RIGHT WAY TO DO BUSINESS.—That handsome calendar which the Hartman Manufacturing Co., Chicago, have been selling for 8 cents has created such a demand for itself as to warrant a second edition which considerably cheapens the cost. With characteristic fairness that company has reduced the price to 4 cents and all original (8-cent) purchasers will receive an additional calendar. We have seen the calendar and it is only fair to say that it is very handsome.

The bound volume of the "World's Gems" is a book of 464 pages and was sold for \$3. The KANSAS FARMER Co. bought a number of these at a great reduction and will give the advantage of the low price to the purchasers. Every page contains an elegant engraving 6 1/4 x 8 1/4 inches, also descriptive reading matter. The book is too heavy to send by mail, but those who can call at the office can have it for 75 cents, or we will send it by express on receipt of 75 cents, carriage to be paid on receipt of book.

The harrow is a very important implement in modern agriculture, and farmers contemplating the purchase of such an implement should give the matter careful consideration. We can only emphasize the saying of "when you buy an article buy a good one," and we believe this is particularly applicable to the harrow. The Lean Lever Harrow, made entirely of steel, has for a number of years stood the most rigid tests; its draft is light, working of the best and frame well braced, making it impossible to work loose and allow the teeth to track. Any of our readers desiring a tool of this nature will find it to their advantage to write Roderick Lean Manufacturing Co., Mansfield, O., for full particulars.

A CHILD'S VERDICT.—The following from the *Cotled Spring Hustler*, tells its own story: "Marengo, Ill., December 27, 1894.—Editor *Cotled Spring Hustler*.—Dear Sir: Mr. Zimpelmann is very busy and informs me that the privilege of writing for the *Hustler* is accorded to the wives of agents as well. I therefore take the liberty of sending you this anecdote. As many of you have met the genial salesman, Mr. Weaver, it may afford you some amusement to hear one of the many bright sayings of his lovely little daughter of three summers. A faint idea may also be gained of the main topic of conversation in the homes of the Page fence men by the following: Little Myrl Weaver, while out riding with her uncle, espied 'a string' of the Page fence on one side of the road and said, 'Oh, Uncle Frank, see! see! There is the Page Woven Wire Fence, that's the kind of a fence!' then turning to the other side where there was a barbed wire fence, said: 'Just see there, there is that naughty pricker fence. That's no good.' Very respectfully, Mrs. Belle Zimpelmann."

Everything

Made of Black Leather

would last twice as long, be stronger, keep shape, be soft and clean, it kept oiled with

Vacuum Leather Oil.

25c. worth is a fair trial—and your money back if you want it—a swob with each can.

For pamphlet, free, "HOW TO TAKE CARE OF LEATHER," send to
VACUUM OIL CO., Rochester, N. Y.

The Farmer's Ready Reference

Or Hand-Book of Diseases of Horses and Cattle.

By S. C. ORR, V. S., is a book that should be in the hands of every stock owner. It is plain, practical and reliable. Price, by mail, \$1.50.

Address S. C. ORR, V. S., Manhattan, Kas.

BURPEE'S BRIGHT RED BOOK
"Bright alike outside and inside." Mailed FREE on application. With each copy we will send (flat) a beautiful painting of New Sweet Peas until the 500,000 have all been called for. Send a postal to-day.
W. Atlee Burpee & Co., Philada.

APPLE TREES Commercial sorts. Grape Vines and a general nursery stock. Price lists free. Kelsey Nursery Co., St. Joseph, Mo.

Acres Apples, \$1,493. Write Nurseries and Orchards, Louisiana, Mo., for a

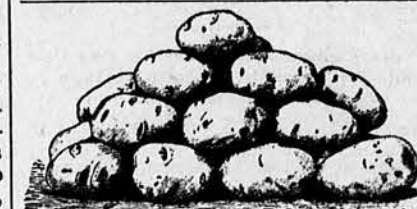
FREE sample copy telling about it. A *Practical Fruit and Farm paper*, published by Stark Bros. 40 cents a year. Circulation 460,000 copies. The "Cream of the Cream." Gives the busy Fruit-Grower or Farmer, who hasn't the time or the money to buy and read a great mass of papers, what is best from all, what he wants to know.

GRASS IS KING

We are the only seedsmen making the growing of farm seeds, grasses and clovers a great specialty. Our Extra Grass and Clover Mixtures last a lifetime without renewal. Prices dirt cheap. Mammoth farm seed catalogues and sample of Grass Mixture free for 7c. postage. JOHN A. SALZER SEED CO., La Crosse, Wis.

SPRING TRADE. 26th YEAR. Douglas County Nursery

Will please you in prices on everything in the nursery line. We have in quantity good line of all kinds of Fruit Trees, standard varieties. 250,000 Strawberry and Raspberry Plants, leading varieties. Low figures on Kansas Raspberry and Parker Earle Strawberry. 75,000 1 and 2-year Asparagus. 25,000 Grape Vines, No. 1. 500,000 Hedge Plants. Send for price list on everything.
WM. FLASKET & SON, Lawrence, Kansas.



Money in Potatoes and Field Beans!

A pamphlet on potato and bean culture, subsoiling, melon growing, seed potatoes, corn, beans and choice garden seeds, kinds of tools to use, valuable information how the money is made, sent free on application; please send stamp for postage. This pamphlet may be worth hundreds of dollars to you if advice is followed. Address (mentioning FARMER) S. A. THOMAS, Bingham, Page Co., Iowa.

THE HAWKEYE TOMATO
Finest yet produced. It's good all summer, from early fall to the ground freezes. Perfectly smooth, solid seeded, solid seed cells, few seeds no waste, you get 2 to 5 more cans to the bushel than from others. It's worth a trial. Pk't 10c. My seed book tells how to grow tomatoes. (A Livingston ought to know) has a colored cover and plate, practical too, worth 10c. Tomato and book sent for only 4 1/2c. stamps, just to get you to try us and our seeds.
LIVINGSTON'S SEED STORE
809-810 Locust St., DES MOINES, IOWA.
Write to-day. Please mention KANSAS FARMER.

PERMANENT PASTURES

and Meadows. How they can be obtained is very important with many farmers and dairymen. Our Catalogue or Book on Permanent Pastures and Meadows contains accurate and true descriptions of all the varieties of our natural Grasses and Clovers, and Clover Grass Mixtures for a permanent Meadow or Pasture. These well-selected Clover-Grass Mixtures will give a pasture that will stand for years; and thousands of acres are now sown every year with our superior Clover-Grass Mixtures, with the best results. We send our Catalogue or Book on Permanent Pastures free to all farmers or dairymen. Write for it to-day.
We are also growers of the best kinds of Seed Grain and Seed Potatoes, which we grow here in Minnesota. Send for our sample packages of Grain, 12 for 10c.; and of Grass Seed, 12 for 10c., postpaid.
FARMER SEED CO. O. KOZLOWSKI, Manager.
Faribault, Minn. (Formerly Chicago, Ill.)

LIVE STOCK AUCTIONEERS.

J. M. HOSMER, Live Stock Auctioneer, Maryville, J. Mo. Fine stock a specialty. I respectfully solicit your business and guarantee satisfaction. Terms reasonable. Secure Gates early.

F. M. WOODS,

Live Stock Auctioneer, Lincoln, Neb. Refer to the best breeders in the West, for whom I do business. Prices reasonable and correspondence solicited.

JAS. W. SPARKS,

Live Stock Auctioneer, Marshall, Mo. Sales made everywhere. Reference to the best breeders in the West, for whom I have made sales. Catalogues compiled and printed. Terms reasonable.

ELI ZIMMERMAN, Hiawatha, Kansas, Live Stock and General Auctioneer. Pedigreed and registered live stock a specialty. Write for dates. Sales conducted anywhere in the country. Best of references and satisfaction guaranteed.

C. A. SAWYER, FINE STOCK AUCTIONEER—N. Manhattan, Riley Co., Kas. Have thirteen different sets of stud books and herd books of cattle and hogs. Compile catalogues. Retained by the City Stock Yards, Denver, Colo., to make all their large combination sales of horses and cattle. Have sold for nearly every importer and noted breeder of cattle in America. Auction sales of fine horses a specialty. Large acquaintance in California, New Mexico, Texas and Wyoming Territory, where I have made numerous public sales.

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 SONG FOR EACH LIFE.

There's a song for each life, Father Time loves to sing,
And he comes and he goes like a bird on the wing,
As he chants us the wonderful news:
"Oh, I am the conqueror, I am the King!
Just so many days in the year I will bring,
Like so many beads in a glittering string,
And you painted in different hues,
Just so many strands to complete the life rings,
As around and around in a circuit they swing,
Not an hour, not a moment I lose.

"To-day is a bead that is priceless and rare,
I leave it with you, but in painting, beware!
Every stroke is a measure you cannot undo;
A strand you have finished, examine with care,
You will notice the various colors they wear,
Some envious green, and some black with despair,
While some with repining are blue;
Some white, with the incense of good, here and there
And not a bead missing in colors so fair,
They shine when the life work is through."

—Housekeeper.

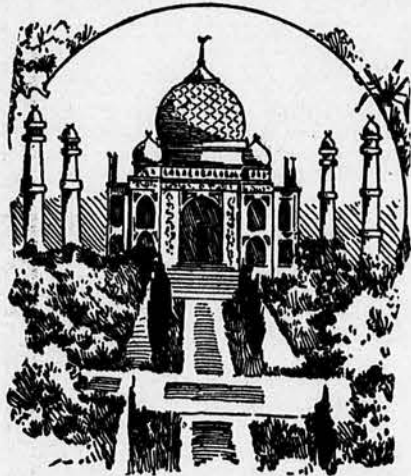
THE TOMB OF MAHAL.

Erected in Memory of a Woman
by an Indian King.

Twenty Thousand Men Worked Two Decades to Complete It—Built of Pure White Marble and Located in a Charming Garden.

Even in modern times, as well as ancient, has it been the pleasure of man to enshrine in some enduring form the memory of loved ones gone on before, and these memorials have taken many shapes. More than two centuries ago Shah Jehan, a potentate of India, lost his beloved wife, Mahal, and erected for her a tomb, which should tell to the world his thoughts of her.

For nearly two decades twenty thousand men were employed to complete this structure, whose whiteness should reflect her purity and virtue, and whose perfect symmetry indicate her loveliness. All that boundless wealth and richest art and endless love could give were focussed in the superb structure now known as the "Taj Mahal," or tomb of Mahal. It stands on a broad



THE TOMB OF MAHAL.

plain a little way from the city of Agra, with its snowy feet bathed in the river Jumna. High walls block out the garden where it lies from the turmoil of the king's highway, and a noble portal admits one in the hallowed precincts.

My first view of it was by midnight. Directly before me was a long pond, bordered by stone walks, which were hemmed in by lofty cypress trees, throwing their pointed heads far up in the evening sky and away down at the end of the vista of shrubbery rose the famous Taj, matchless, imperial and almost angelic!

It is a square structure, with four corner domes and one immense central dome, all made of the purest white marble. Its windows are screens of the same material, and its adornments consist of mosaics and a profusion of delicate tracery in fair white marble. With measured tread and slow, one walks down this long avenue and comes under the very brow of the tomb, and feels the mighty greatness of Taj, with its splendid dome rising like a rounded cloud two hundred and fifty feet in the Indian heavens. It sits on a huge platform of marble four hundred feet

square, at either corner of which rises a long, slender minaret of marble.

One enters reverently, for a queen is here, and gazes up into the dim recesses of the splendid dome of solid stone unsupported by any arch or pillar, and then, indeed, the magic spell of the Taj comes over you, enchants, permeates and enfolds you in its irresistible influence.

You abandon yourself to a witchery totally unlike that to be felt in any other place in the whole world, for here beauty, life, death and sound with combined forces make you captive.

The echo is marvelous, "yet it will not render back ill noises or a rude and scurrile sound; but if some woman's lips and gentle breath utter a strain, if some soft bar be played, some verse of Indian love lament, the white walls take the notes and reverberate their melting antiphones. Low waves of harmony encounter other waves rippling on the rounded milky shores, and fainter and higher the music sighing, dieth upward, so sweet and fine that at the last you cannot tell when silence comes."

Then you try to grasp the beauty of the wondrous tracery of this inner shrine, the work in chalcedony and jasper and lazulite, made into roses and lilies and jasmine, and best seen by day, when the golden sunlight filters through the marble screens with so tender a grace that you almost feel that here, at least, nature paid obeisance to art.

Wander in the gardens in the silver night and get glimpses of it through the shrubbery, gaze at it from the river or an adjacent tower and let its gleaming whiteness dazzle you, it is still the one perfect thing.

Pace the long cypress walk, and Gray's words, "Along the cool sequestered vale of life," spring to your lips, and the Taj seems very like a piece of Heaven let down for profane mortals to gaze upon. It inspires, subdues and calls to nobler thoughts by its inscription in the Persian tongue, which says: "The world is a bridge; pass over it, but build not upon it! The world is one hour; give its minutes to thy prayers, for the rest is unseen!"

It is so exquisite in detail and so perfect in its entirety, set in the garden which it beautifies. The dead queen loved her garden, and it was a sweet conceit of the devoted husband that her last home should be among fragrant flowers, so "she who loved her garden lieth now lapped in a garden"—John C. Boker, in Ladies' Home Journal.

Splendid Salve for the Lips.

Unlovely lips come from an unhealthy stomach. Bad digestion will often assert itself in broken or chapped lips, sores in the corner of the mouth, fever blisters and a coated tongue. Chronic sore mouths should be rubbed with sweet oil or pure glycerine at night; in the morning wash with a solution of alum or borax—a teaspoonful in a tumbler of water. Camphor ice is both healing and cleansing. Good cold cream is not a bad salve. The receipt is simple enough, but it doesn't pay to prepare it; all the druggists have supplies and cheerfully dispense five-cent quantities. Citron ointment is one of the old reliable lip salves kept by all chemists. It is applied to the sore with a soft linen cloth. When the mouth is sore the diet should be changed to vegetable foods.

Ribbon for an Evening Waist.

An effective garniture for an evening waist is made of white satin ribbon, embroidered with tiny gilt spangles interspersed with an occasional spangle of rose-hued glass. The ribbon should be about an inch wide. Two rows serve for the stock collar, two for the belt, and a single row is brought from each side of the collar in front and passed around under the arms and carried down to the waist line in the back and tucked into the belt.

To Cure a Double Chin.

A certain indolent woman with a tendency toward having a double chin has hit upon a method of warding off the evil day. She dislikes to arise as soon as she awakes, and she spends the half-hour or so before she gets out of bed each morning in stroking her chin down into her neck with firm, even strokes. The massage is undeniably good for her chin, and she feels that her indolence is forgivable under the circumstances.

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

Royal Baking Powder

ABSOLUTELY PURE

TO SAVE ONE EGG.

When a certain family I know first began housekeeping, the wife, with New England thrift, ordered a batch of doughnuts made, using only two eggs, instead of three, thereby saving, at that time, about 1½ cents. The husband drank his coffee, began to eat his doughnut, but after one mouthful he looked doubtfully at it, asking why it did not have the usual taste. The economical wife frankly stated that another egg would have made perfection. The doughnut was eaten in silence, the crumbs deliberately wiped from the red mustache, the keen blue eyes raised to the wife across the breakfast-table, and a voice said, in that cool way young wives never forget: "If I were you I never would spoil a whole jar of doughnuts to save one egg!"

Insensibly the wife took that remark as a guide in matters of economy. A poorer grade of flour is never bought for the sake of saving 10 cents. The sugar, tea, coffee, spices, are always the best of their kind. The velvet for the bonnet, the wool for the gown must be free from that thread of cotton which will give the shabby look long before the material is worn out. The steel range in the kitchen, though costing twice as much as a common cook-stove, gives ten times the comfort and will out-wear three. And when this wife builds a new home, if she has a fine carriage and good horses, she will build a new carriage-house and barn, even if it looks as though she might save an egg by letting them remain in their present cramped quarters.

What set me thinking in this line was the fact that yesterday, in the midst of the blizzard, the two daughters walked into the home, having been forced to leave the recitation-room at the college because cheap heating apparatus had been procured by the Regents, when they knew it was doubtful if the effort to save "one egg" would not prove a real failure.

Often, when reading the proceedings of our State Legislature, the same thought is forced upon my mind. Skimp a little on this State institution, pare off a little on that, a nice batch of doughnuts at the other spoiled because they hold back the third egg! Six hundred students either made ill or forced to lose a day's instruction to save a few hundred dollars, more or less, on heating apparatus! Six hundred days partially lost to save "an egg." The Legislature is not quite certain but it will duplicate the same folly and refuse the college the money for a new building for the department of domestic economy. They may save the 1½ cents, but they lose millions by it. It is not my business to be an advocate for any State institution, but when I see young girls taught house-keeping and home-keeping in two six-by-nine rooms, I wish their parents were able to give them a fair chance. When I see a rich State like Kansas, with buildings, apparatus, library and skilled workmen set up a State Agricultural college, and make it necessary for the food from the kitchen laboratory to be carried upstairs, across the campus, up another long flight of stairs to be served for its invited guests, as it was at the dedication of the fine Library hall, a few weeks ago, how can I help thinking about that batch of doughnuts where I saved one egg?

I hope, Mr. Editor, you will be good enough to explain, as you did when I last wrote an article for this page, that why I am interested in domestic economy is because I am Vice President of Kansas in the National Household Association, and I will

explain for myself that why I am interested in the college is not only because my own daughters are to be educated there, but because I think it stands so near the front among agricultural colleges in the world, and because I have a genuine love and pride in Kansas and am pained when she makes fatal mistakes.

Manhattan, Kas. MRS. C. F. WILDER.

I wish to commend the skill of Mr. Chas. Bennett, 718 Kansas avenue, Topeka, as a scientific optician. Having long suffered the pain and inconvenience caused by glasses imperfectly adapted to the eyes, I am the better able to appreciate the relief resulting from those so completely and perfectly adjusted to my needs by this gentleman. In these days, when optical defects are so numerous, and vision so often impaired through neglect or ignorance, it ought to be a comfort to know that scientific means of restoration are available in the shape of specially adapted lenses. And the still greater comfort resulting from experience may be felt, as I have felt, by making trial of the skill of Mr. Bennett. I can cheerfully recommend him to all (and there are many) who need his services.

Topeka, Kas. A. C. DAVIS, M. D.

SMOKE YOUR MEAT WITH KRAUSERS LIQUID EXTRACT OF SMOKE
SEND FOR CIRCULAR. E. KRAUSER & BRO. MILTON, PA.

ONLY 10% ABOVE ACTUAL COST
We are headquarters for BABY CARRIAGES and BABY CHAIRS. \$3 says a strong, serviceable Baby Carriage, \$10 says a strong, serviceable Baby Chair. Both styles running in prices up to \$20.00, fully warranted for 8 years. Shipped on 10 days trial, freight paid, no money in advance. Read and listen to the story of the \$1.00 price, and ship direct from factory at only 10% cost, above actual cost. Right return as to our absolute responsibility. Cut this out and write TO-DAY for our latest circular. Address: OXFORD MFG. CO., Furniture Dept. 71842 Wabash Ave., Chicago.

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ESTABLISHED IN 1889.

Does a general tanning business, including robes, rugs, etc. Tanning Galloway hides for robes a specialty. First-class work, reasonable prices. All kinds of leather in stock—best quality. Have you any oak bark? Good prices paid for it. Write me.

M. C. BYRD, Lawrence, Kas.

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Fifth and Grand Ave., Kansas City, Mo.

A strictly first-class house at moderate rates. Central location. Half block from new million dollar court house and half million dollar city hall. On direct Fifth street cable line from Union depot and stock yards. 225 choice rooms, all newly decorated. Lighted by electricity. Rates, \$2 per day. Rooms with bath and parlors, \$2.50 per day.

E. K. CRILEY & CO., Proprietors.

GEARHART'S FAMILY KNITTER.

Knits a stocking heel and toe in ten minutes. Knits everything required in the household from homespun or factory wool or cotton yarns. Most practical knitter on the market. A child can operate it. **STRONG, DURABLE, SIMPLE, RAPID.** Satisfaction guaranteed. Agents wanted. For particulars and sample work, address, J. E. GEARHART, Clearfield, Pa.

FREE IT COSTS YOU NOTHING, FREE

A Home-Side Offer. No Misrepresentation. No Scheme. No Rush Opportunity has ever before been offered. We shall continue these liberal terms FOR ONLY A SHORT TIME. Cut this out and write to-day. **75,000 In Use.** **WARRANTED 10 YEARS.** **ADDRESS: OXFORD MFG. CO., FREE S. M. DEPT. P611, CHICAGO, ILL. FREE**

If It's a Sprain, Strain, or Bruise

St. Jacobs Oil

Will Cure It

INCORPORATED OCTOBER 29, 1894. LOCATION, 1103-1105 NORTH FOURTH AVENUE.

HOME OF REDEEMING LOVE,

WICHITA, KANSAS.

Object.—To provide a home for penitent fallen women, and to rescue them from lives of shame; to reclaim, educate and instruct them in industrial pursuits, and to restore them, when possible, unto their homes and parents. **BENEVOLENT FRIENDS**, this institution is non-sectarian and non-salaried—each worker freely doing her part to "rescue the perishing, lift up the fallen and tell them of Jesus, the mighty to save." God is blessing the work and good is being done. Now, we want you to "help just a little" and enable us to do still greater good. The erring daughters must be reclaimed—they are more often sinned against than sinning. The Savior said, "Neither do I condemn thee; go in peace and sin no more." Address: REV. LYDIA A. NEWBERRY, WICHITA, KAS.

The Young Folks.

A WESTERN BLIZZARD.

[Written in the midst of one.]

Thin, fleecy clouds of yellow hue,
Spread tightly o'er the azure hue.

The clouds grown denser shed a mist,
As tho' by summer they'd been kissed.

The air soon shudders with a chill,
And comes in gusts foreboding ill.

Hurled by the rising tempest's wings
The frozen mist like needles stings.

The crystal shot is mixed with snow,
And stronger still the cold winds blow.

And stronger still and colder still
The full-fledged blizzard works its will.

More violent and more intense
It penetrates each strong defense.

The dry snow lifted from the ground,
Like dervishes, is whirled around.

It roars and rages, sweeping clay
Against the shining face of day.

The sun seems but a brighter moon
That dimly lights the earth at noon.

Its wrath, increasing in its might,
Makes dreadful the approaching night.

And still it rages hour after hour,
Till all things tremble 'neath its power.

It shouts and waves its banner black
In triumph o'er its dreary track.

And never does it cease till death
Has throttled its destructive breath.

—G. W. Crofts, in *Inter Ocean*.

A JOLLY JACKDAW.

Amusing Story of a Decidedly Intellectual Feathered Pet.

Our little jackdaw is dead, but little as he was he has left a big gap behind him in the house. Sometimes we fancy we hear his cheery "squawk," and we find ourselves listening for the pattering of his little black toes in the passages or in the house.

His life was short, but as merry as mischief could make it. Mischief was his one guiding motive from morning to night every day that he lived, until death, which might have let such a little jokester alone, gave him fits and stopped his pranks. He came to us when he was quite young, and when we had to ram food down into his interior to the accompaniment of choking, gurgling and squawking. He was given as a present to the children, and for the first few days he belonged to them. After that we all belonged to him. We bought a cage when we knew that he was coming. It was in the perpendicular cane style of architecture. Jack lived inside for a day or two, until he knew better, and then when he found that the world outside the wicker walls was so much bigger than the one inside, he refused to use it except as a dormitory. When he had once passed up the garden steps into the wonderland of the house, where the big and little men and women lived, he sternly and stubbornly declined to enter the wattle door again until the last thing



JACK'S BREAKFAST.

at night, when he was tired and sleepy, and all the big suns and moons were extinguished. He did not mind sitting on the roof of the cage, and occasionally he would open the door and look round to see that his sleeping perch was in order; but he would keep his wary little eyes upon the entrance, and if anyone tried to close it, out he would scramble in a fury of beak and claws, and fight for freedom.

If all jackdaws possessed the same mechanical genius as Jack, no church tower would be safe. A glance of his keen little eyes, black beads set in gray-blue circles, and he would understand all the details of make and mechanism. He found out how everything was made, so that he could unmake it. If one thing fitted into another, he would set to work to unfit it. He discovered, with disastrous results to table covers and carpets, that corks could be extracted from ink bottles. He studied the sewing machine, until he knew ex-

actly how to stop its beneficent career. He would remove some portions of the machinery from one place where it was needed, and locate it somewhere else where it could do nothing, and sometimes he would snap the thread or rush the spindles off. But perhaps his greatest pleasure in life was to get hold of things that people wanted most particularly, and to hide them. A dog hides the bone because he thinks he may want it again, but Jack secreted things simply because he thought other people might want them.

But perhaps the most wonderful thing about our little black pet was his strength of mind, his power of will and the determined way in which he ordered his daily walk of life. He slept in his cage on a landing, and at seven o'clock he would be awake, waiting for the servants to come and take him downstairs. If they were late he would grow impatient, stamp about, and try to open the door. Directly he was released he would rush to the beetle trap, lift off the cover and have a look round the inside to see what sort of sport there had been during the night. Then he would start his breakfast; beetle after beetle was picked up and swallowed, sometimes as many as forty or fifty.

After breakfast came the bath. A large round metal basin was kept on the grass plot in the garden, and filled with water. When the weather was cold, the children raised the temperature with hot water.

Jack would get up on the rim and walk round and round half-a-dozen times before plunging in. Then he would paddle about a little, and at last he would sit down, duck his head and splash the water all over him by splashing his wings vigorously. When he came out he looked like a little drowned creature, or like the Jackdaw of Rheims after the curse had worked. From the first he made up his mind where his drying ground should be. This was on the landing at the top of the stairs in front of a mirror. Here he would preen and arrange his plumage.

Then during the morning he visited the different rooms and helped with the painting and drawing. The sewing machine, too, had to be looked after, flies and wasps had to be hunted. He killed and swallowed wasps by the score, but he drew the line at daddy-long-legs. If one came in his way he would nip it and then carefully insert the squirming bunch of legs between the leaves of a book, put it down with one foot, and leave it there. Dinner was an institution for him, and he knew the dinner bell as well as anyone in the house. There was always a chance of making a sudden swoop upon some choice dish. A stewed or a fried tomato, or a beakful of red currant jelly, or a slice of hot juicy mutton, trailed across a clean tablecloth, was always exciting, and aroused the enthusiasm of the big and little men and women, who always cried "Oh, Jack!" but who never beat him.

Then in the evening, when he was getting tired, and the lamps were lighted, he would get on the back of his mistress' chair, tuck his head into some place in his back, and go to sleep.—Westminster Budget.

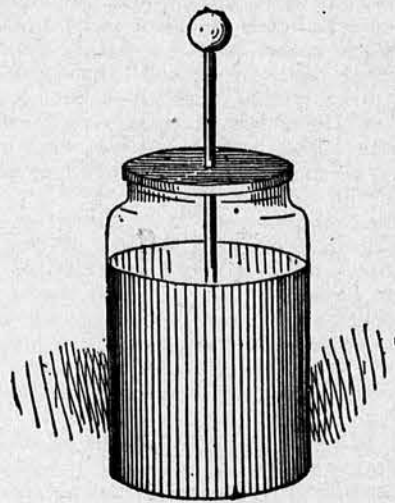
THE LEYDEN JAR.

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By the Leyden jar alone can the electricity generated by the machine be stored for the numerous experiments and for imparting shocks. A small jar may be made from an ordinary thin glass tumbler of the largest size; but if a larger jar is desired, a glass bottle or jar with a neck sufficiently wide to admit the hand must be used. Such jars are easily procured. Take the tumbler or jar and paste tinfoil inside it, covering the bottom and extending about three-quarters up its height; when this has been done paste tinfoil on the outside, covering the surface as has been covered on the inside. When the paste has become perfectly dry trim the upper edges of the tinfoil with a knife, scraping away all the irregularities, and clean the uncovered glass thoroughly.

Now make a lid for the tumbler or jar, so as to fit it. This is best made by being turned out of a piece of three-quarter-inch thick hard-wood; but it can be cut with a knife out of two quarter-inch pieces, one a little larger

than the outside of the tumbler or neck of the jar, and the other made to fit inside the tumbler or neck. When these pieces are glued together they will form a sufficient lid. Bore a hole through the center of the lid to receive a stout brass wire, about six inches long, having a brass or lead ball at its upper end, and a short piece of brass chain tied



A LEYDEN JAR.

with wire to its lower end. When the lid is put in place the chain must touch the tin-foil at the bottom.

To use the jar, place it so that its ball is close to the ball of the collector or conductor of the electrical machine, and turn the handle. Sparks will be seen to pass from one ball to another until the Leyden-jar will refuse to receive more. At this stage it is charged with electricity. Now if a person touches the outside coating of tin-foil with one hand and the ball with the other, he will receive an electric shock. If a string of ten or twenty boys is formed, by joining hands, and the left-hand boy touches the tin-foil of the jar, while the right-hand boy places his finger on the ball, the entire string of boys experiences a shock in the arms. Such a harmless experiment causes great fun in a gathering of young people.—Harper's Young People.

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Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.

To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.

All advertising intended for the current week should reach this office not later than Monday.

Every advertiser will receive a copy of the paper free during the publication of the advertisement.

Address all orders—
KANSAS FARMER CO., Topeka, Kas.One dollar and eighty-five cents will pay for the *KANSAS FARMER* and the twice-a-week New York *World*. Everybody should read.The Empire Cordage Company, of Champaign, Ill., want to buy one hundred tons or more of good, strong and properly retted flax tow. Farmers who raise flax should properly prepare their tow for market in order to get the full benefit of the crop. The *KANSAS FARMER* would like the addresses of all farmers who raise flax where there are flax tow mills.

The total number of sheep in the United States on January 1, 1895, is estimated by the Department of Agriculture to have been 42,294,064, against 45,048,017 on the same date last year. The number reported for Kansas is 274,883, against 323,392 last year. Texas is credited with 3,738,117, Ohio 3,577,419, California 3,526,341, New Mexico 3,008,824, Montana 2,808,717. It is doubtful if any of these States present better natural conditions for sheep husbandry than are found in Kansas.

From recent commercial reviews it is found that the world's visible supplies of wheat have been, in bushels, on the dates named, as follows:

| Feb. 1, 1895. | Feb. 1, 1894. | Feb. 1, 1893. |
|---------------|---------------|---------------|
| 215,953,000 | 223,297,000 | 224,410,000 |

It is believed that the wheat in farmers' hands has fallen off very much more than has the "visible." This view is very much strengthened by the falling off in receipts at primary markets in the United States for the week ending February 9. These in 1895 were 768,000 bushels, against 2,304,000 for the same week in 1894.

The live stock returns of the Department of Agriculture show a slight increase in the number of cows in the United States during the past year. But this is the only kind of live stock which does not show a decrease. Thus "other cattle" have decreased over 2,000,000 head, sheep have decreased nearly 3,000,000 head, swine have decreased over 1,000,000 head and horses have decreased over 6,000,000 head. The number of milch cows is larger than ever before. "Other cattle," sheep, swine and horses reached their maxima in 1892.

Tanning by the Old Slow Oak Process.

EDITOR *KANSAS FARMER*:—Replying to your correspondent's inquiry in regard to "tanning hides into leather by the old slow oak process," the tanning should not be crowded. Give the hides plenty of time. Do not have bark liquor too strong at first, until about two-thirds tanned, then liquor can be used about 20° or 30° strong, by barkometer test. Under this method hides should be left in tanning process from six to eight months, by changing them into different liquors when they require it. This is all left with tanner, to use his judgment. M. C. BYRD, Lawrence, Kas.

THE SCHOOL BOOK QUESTION.

Since the days—by some remembered—when each term of the district school ushered in a new teacher, and when the new teacher's first act after getting the school organized was to insist on a change of text-books, holding that those in use were not nearly so good as those used where the new teacher had gone to school—since those days the agitation of the school-book question has never ceased. And some improvement has come out of the agitation. Indeed, we have a very good law in Kansas, which has very nearly made an end to the expensive changes of former times.

Since the present Legislature convened, much has been said and written on State uniformity of text-books, district ownership and kindred topics. Would it not be well enough for legislators to pause long enough to ask and answer a few pertinent questions, or follow the trend while we ask and answer?

(1) What is the existing law of the State governing the selection and use of text-books in districts, towns and cities? Answer.—The law of 1885, providing for county uniformity upon a majority vote of the districts at the annual school meeting in July. The adopting power is vested in a text-book board, composed of the County Superintendent and one member chosen from each municipal township by the several school districts of the township. Cities of the first and second class may join in the selection of the books. Books thus selected cannot be changed for five years. Sixty-one counties are operating under the law, and the books are sold at publishers' list price. In districts, towns and cities where county uniformity does not obtain, the local boards select the books to meet the requirements of the course of study in each particular locality.

(2) From whence comes the demand for a change from the existing plan? There are, in this particular field of enterprise, certain reformers, such as are found in proximity to all questions that affect the whole people, who are not satisfied to let "well enough alone," and who hear in the smooth dissimulation, "school books at cost," an eradication of all the ills and evils attendant upon and connected directly or indirectly with the business of supplying books for our children. This siren song is sung under the guise of reform by certain individuals who have "an ax to grind" and hope to profit through legislation.

(3) What is proposed as a substitute for the present law? State uniformity by the Price bill (House) and partial district ownership by the Senate bill. Both bills are being urged by friends of each measure, under the allurements of cheaper books. State uniformity, as provided for in Price bill, is not favored by educators generally, and is by some pronounced the greatest blight upon the schools of a State that could possibly be inflicted.

(4) The bill now before the Senate, which authorizes the board of directors of a school district or the board of education of a city to purchase books and stationery and furnish them free to all pupils below the high school; but allows any pupil so desiring to purchase books from the board at cost, is a step in the direction of the socialism toward which society is moving even more rapidly than the conservative think safe. The strongest argument made against it is on the ground of the destruction of self-reliance. This argument has been summarized as follows:

"It is the duty and business of the public schools to train boys and girls for useful citizenship. The more independent and self-reliant the citizen, the more stable and firmly will rest the foundations of American liberty. Self-reliance and independence are taught, not by supplying the individual with everything he needs, but by teaching him to supply his own wants. The country would never have produced a Washington or a Lincoln had they not as boys learned the lesson of self-reliance. They would not have learned the lesson half so well had the books they used at school been handed out to them without money and without price. The boy who shoveled snow to earn a gram-

mar, grew into manhood a better citizen than he could have been had he been reared under the free-book plan. Habits of industry as well as thrift and economy must be begun in childhood. One of the strongest incentives to thrift and independence is taken away in the free-book plan. But, for the advocates of this plan, to introduce which there is no occasion for any change or amendment of the present law."

A number of districts have adopted the plan, purchase books direct of publishers at the same prices paid for similar books in States where the law provides for district ownership, hence there is no need of legislation.

THE STATE HISTORICAL SOCIETY.

The Kansas State Historical Society is one of the remarkable institutions of this commonwealth. In no other State have the materials for complete history been so well preserved. The most remarkable thing about it all is the small expense at which this work has been done. In all, the collection contains 10,689 volumes of Kansas newspapers. These have been the free gift of the publishers. They contain comprehensively and in detail the history of every county and of almost every hamlet in the State. But the library not only contains newspaper files, but books, pamphlets, manuscripts, pictures and numberless historical relics. The institution has created a world-wide interest and has attracted gifts from every quarter, until it numbers now nearly 80,000 volumes. This library is even now consulted freely by those who have occasion to learn the exact history of any event or place in the State.

The plans of the capitol make no adequate provision for this library. There is plenty of room in the big building—or there will be when it is completed—and there has been suggested no better arrangement than that when the offices of the Governor, the Secretary of State and the Adjutant General shall have been suitably provided for in the now unfinished parts, the east wing from the ground to the Senate floor be set apart for the great and growing library of the Historical Society.

But in the meantime the rapid accumulation of priceless materials must be cared for. It has been suggested to devote to its temporary use a large portion of the basement of the south wing, and it is to be hoped that some ample provision will be made. This generation and all succeeding ages will commend the wisdom and devotion which preserves the historical treasures where they can be consulted either by letter or in person by every inhabitant of the land.

MILK AND HONEY, FISH AND FRUIT.

A queer combination, and yet, with the addition of bread, it lacks little of a catalogue of articles capable of supplying the most pressing wants of man. Indeed it is a larger inventory than was made by Joshua and his companions, who were sent to search the land of Canaan, to see whether they had better enter it. They brought back a bunch of grapes, "And they told him, and said, we came into the land whither thou sentest us, and surely it floweth with milk and honey; and this is the fruit of it." But some of them reported that it was a dangerous country to go into and advised that it was too heavy a job to undertake to possess it, and advised that they all go back to Egypt, more especially because the people of the land were hostile.

Not long since, the writer was out on the plains of western Kansas. A good many people had then turned their backs to that country as from a desert. Yet, when regions are visited where the alfalfa is grown, where water is moved over the few feet intervening between its vast, and ever replenished, stores to the surface where plants grow, the report of Joshua was greatly surpassed. The milkman near town said that alfalfa had ruined his business; not that alfalfa was not good for cows, but because people in town had learned to pasture their cows on an alfalfa lot in summer and feed her in winter on

the hay made from the excess above what she could eat while it was growing. They, therefore, needed not to buy milk. An old gentleman—too old for hard work—had a number of stands of bees from which, from the time alfalfa began to bloom until frost killed the blossoms, he sold an average of \$5 worth of honey per day. At the hotel they fed us on milk and honey, ay, and native fruit and fish and bread made from wheat grown on the desert. The irrigated grapes grow large and in great abundance; the apple trees know not when they have done their full duty; small fruits are sure. But fish? Irrigation means ponds of fresh and ever-changing water. Heretofore the carp has been thought the only available fish. But it has been found that some of the finest of the fresh water fishes do well in these irrigation ponds.

Grains have not failed where irrigated, and gardens are a continued surprise.

The people who are obliged to leave a country of such possibilities are leaving what must soon become the envied of all lands, because of the extent and the ease of irrigation—because of the abundance with which will here be produced the major portion of the things needed for the well-being of mankind.

IRRIGATION IN OSBORNE COUNTY.

The Osborne County *Farmer* publishes an irrigation map of its county. This is accompanied by a thoughtful editorial, in which is presented the most important facts of the situation and able comments thereon. It is shown that there is much "underflow" water in that county, that abundant supplies have been found in many wells, the locations of which are given, and that a very large percentage of the land can be profitably irrigated. The theories advanced for the existence of the underflow are matters on which scientists and practical men, like the editor of the Osborne *Farmer*, differ. They are, however, of far less importance to this generation than the existence of the great sub-surface supply, and the advocates of each theory claim that it assures the annual replenishment of the supply, so that posterity's case is well provided for. The windmill and pump are the appliances recommended in the paper for general use in lifting the water to the surface. The enterprise of the Osborne editor in making so able and comprehensive a presentation of the subject is commendable in the highest degree and will doubtless bear abundant fruit in the added prosperity of his readers.

Who would be benefited—who would be hurt—what danger would follow the adoption of the following, which is Henry Clews' latest financial suggestion to Congress: "As the question turned upon the quibble as between the terms 'in coin' and 'in gold coin' and it may be just possible that the House will attempt to redeem its discredit by some other form of bill, I would suggest that Congress pass an act authorizing the issue of \$1,200,000,000 bonds, the rate of interest not to exceed 3 per cent., payable in 'coin,' the holders of said bonds to have the option when the government makes payment of principal or interest to demand gold or silver coin or legal tender notes therefor, \$685,000,000 of said bonds to be held in reserve to provide for that amount of outstanding bonds, the holders of such bonds to have the option at or before their maturity to convert them into the bonds authorized by this act bearing 2½ per cent. interest—the \$500,000,000 remaining to be issued at the discretion of the Secretary of the Treasury with the consent of the President of the United States for the purposes named in the funding act of 1870 and the resumption act of 1875, all other provisions in said acts to be repealed on the enactment of this measure."

The cheapest and best way to break up monotony and to make life and home enjoyable is to provide plenty of good reading. Take the county paper; take a State political paper; take the *KANSAS FARMER*; take a good monthly magazine—take these, if no more.

Clay County Farmers' Institute.

The regular meeting of the Clay County Farmers' Institute was held last week, on Friday and Saturday, at Clay Center, the county seat. The first session was opened Friday afternoon with a paper by J. P. Otis, on "Raising Pork for Profit," which was followed by a general discussion on swine husbandry, and of course every breed of swine had its champion. The outcome of the whole thing was that to succeed one must have good blood, plenty of variable ration, shelter, and give due attention to the business. This was followed by an excellent paper by John Malaby, on "Corn Culture on Upland." The general opinion brought out during the discussion was that deep plowing, or rather sub-breaking with a modern subsoil plow, would tend to create a thicker earth blanket that would take up the surplus moisture and be more apt to retain it for use during the crop-growing season. After planting shallow cultivation was generally thought the better way to proceed. Plant earlier varieties, such as ninety or hundred-day kinds. Though it would not yield as much per acre as the larger varieties, it would be surer in making a matured crop. Prof. Lantz, of the Agricultural college, at Manhattan, read a paper, "Country Roads and Their Management," that was interesting and would have been a daisy in any country that had more need of better roads than does Kansas. The thought occurred to the writer that Kansas perhaps had the best all-the-year-round roads of any State in the Union and could stand a little more mud if more moisture could be liberally distributed.

The evening session was opened by Prof. Graham, of the Agricultural college, on "Subsoiling," which proved the most interesting subject of the entire institute—so interesting, indeed, that it was agreed to take it up again the following day. Prof. Graham then took up the workings of the Agricultural college and illustrated many of its features by the lantern. It was a splendid exposition of what the college is trying to do and the facilities with which the work is being accomplished.

SATURDAY MORNING SESSION.

The question of "Subsoiling" was resumed and it was the general opinion that most uplands and a major portion of the bottom or valley lands could be made more sure of producing better crops if the subsoil down to a depth of two feet could be loosened up so as to be more able to take up the moisture or rainfall, acting as a sort of storage for future needed use. Prof. Graham related some personal experience out in Lane county. A part of forty acres was subsoiled, and after the first season the effect was greatly visible in the marked contrast of the wheat in growth and the yield as compared with that grown on ground treated in the ordinary way. J. T. Woods thought that much good would result if a good-sized pond was built on every quarter section where draws of sufficient size would permit of the same being built. J. T. Corrington was of the opinion that subsoiling, or as Mr. Brush had put it, sub-breaking, and ponds were the two best essential things for eastern and middle Kansas. J. L. Warner's observations in Kansas agriculture had led him to conclude that the upland was about as rich in crop-producing elements as were the bottom lands, and felt sure that proper and united action in deep sub-breaking and the construction of ponds would in a great measure bring better results and have a tendency to distribute or utilize the rainfall during the crop-growing season. John L. Mayos thought it best not to become too enthusiastic on subsoiling, but it were better to go slow and learn just how far it could be carried out, as he felt sure that some soils would not be benefited by deep culture. Prof. Graham thought that perhaps Mr. Mayos did not fully understand the scope or the method proposed in subsoiling. It was not the intention to throw up the under soil but to loosen it up. Many farmers had observed how hard and compact the soil was just below the general average depth of the regular annual plowing—hard, almost, in some instances, as a sun-dried brick. The object was to break this up or loosen it so that moisture, in the way of rainfall, could or would run down. Mr. Brush, of the KANSAS FARMER, was asked the best form of a plow for subsoiling, and replied that the Perine subsoiler, made at Topeka, was doubtless the nearest to perfection of any yet invented for all kinds of soils, especially the hard, compact soil, as is commonly found in Kansas. To think of getting force enough to a piece of machinery such as a plow to break up the hard, compact ground two feet deep and leave a furrow correspondingly as large, was not to be thought of by the average farmer. The Perine plow is constructed so as to present the least possible resistance, as the up-right or standard presents only an inch and a half face, yet the shoe is of sufficient size to crack open the soil, when running at a depth of fourteen inches, two feet on either side of the plow. The object is not to plow, in the sense that plowing is usually

done, but to break up the hard, compact subsoil so that the water may penetrate. If twelve inches be loosened the first year, six inches the second and six inches the third, in a few years, five at most, the moisture blanket will be twenty-four inches in thickness instead of the usual one of six or eight inches. Mr. Heusner believed, as did a score of others, that subsoiling or sub-breaking was one of the ways out for the Kansas farmer, and if he could not break down twelve inches the first year he would go as much deeper than the usual plowing went as he could and gradually get down to a depth of, say, two feet. Mr. Jackson related some personal experience concerning deep plowing. He had laid out a piece of ground containing four acres; plowed it very deep; leveled it down, intending to plant it out to orchard, but failing to get the trees in time, planted the ground to corn. The ground (twenty acres) adjoining had been plowed in the usual way and all was planted. It was an average crop season, but the yield was quite different. The four acres intended for the orchard made eighty-two and one-half bushels per acre, while the other only made sixty bushels. Many others related their personal experience and observations, which space and time forbid entering into in detail, but the general, and one might say almost universal belief, was that with a little more labor and hope in Kansas conditions, all things considered, a livelihood was just as surely possible here as anywhere. This was followed by a paper on "Ensilage," by J. L. Warner. He had samples on exhibition and created more than ordinary interest in silos and the good qualities of ensilage. His very excellent paper will appear later on in the KANSAS FARMER.

SATURDAY AFTERNOON.

"Alfalfa in Clay County," by E. H. Dimity, was one of the best papers read before the institute. He exhibited samples of each of the three mowings last year, and dry as it was in Clay county, his fifteen acres yielded sixty tons, worth, say \$5 a ton in the stack, or \$300 for the product of fifteen acres. He began four years ago and sowed twenty pounds of seed to the acre. The ground should be plowed twice the year before sowing and early in the spring. Must be made mellow and fine and be sure that weeds are killed the year before, in order to get a good stand. Went over the ground with a slanting-tooth harrow after sowing broadcast. Tried to get seed in the ground from a half inch to an inch and a half in depth. Did not pasture much the first season. All kinds of farm live stock were fond of it, even fowls, and would get fat on it without any other feed, even grain. The discussion brought up the question whether or not cattle would bloat when first turned in to feed upon it standing in the field. Mr. Dimity had never had any trouble in feeding it green but several related cases where cattle turned in bloated and died. Some thought best not to let cattle remain longer than fifteen or twenty minutes, morning and night, until accustomed to it, and others thought it best not to turn in at all when the dew was on or immediately after a shower of rain. Mr. Dimity, in answer to the question, "What kind of soil was best adapted to alfalfa-growing," replied that it grew best upon bottom land, and no matter whether bottom, bench or upland, always select, if possible, land with a loose or open subsoil, as the roots could not penetrate a hard, compact subsoil, at least the growth and yield would not be ample enough to prove satisfactory or profitable. Mr. Avery advised clean ground and thoroughly pulverized in the spring and the seed put in with a press drill, setting so that the seed would be covered a half to an inch and a half deep. Avoid early grazing until the plant has secured a good foothold.

"The Winter Dairy," a paper by John L. Mayos, proved an interesting one. If Iowa and Wisconsin could and did succeed at winter dairying, why could not Kansas, with a more favorable climate? It takes feed to make milk. Homeopathic doses may be all right, but when applied to the dairy cow it means sure death. Besides feed, the milch cow needs shelter, care and systematic feeding and a variable ration, in short, needs attention. No one need ever expect to succeed in the dairy business without system, labor and close attention to business. Men and women do succeed in other States and some in Kansas, then why not others? The paper was replete with good things and worthy more extended notes. This was followed by a paper, "Recreation on the Farm," by Prof. Heusner, and he by "Training the Farmer's Boy," by Prof. B. F. Merten. Both were scholastic and theoretical rather than practical—and what was singular, yet not singular, either, that the farmer's daughter was forgotten in the rustle for man's plans for the supremacy in the great struggle for life and existence.

The institute closed with a paper by Mrs. W. C. Bumstead, "Woman's Work on the Farm," that was replete with practical observations, in fact, was a presentation of

conditions that ought to have awakened in every hardened old sinner heart some recollections that his mother was a woman and the mother of the family, to whom he owed his existence and from whom he had inherited about all the good that was in him. The paper will appear later on in the FARMER.

In conclusion, the institute brought about an exchange of ideas, a comparison of the efforts in trying to better the farmer's condition, and was at least a kind of mental reunion, and the only regret was, as it appeared to the writer, that the institute was not held regularly and more frequently.

W. P. BRUSH.

Kansas City Stock Market.

Our Kansas City correspondent writes under date February 15:

"Receipts of cattle this week, 20,541, last week, 24,697; hog receipts, 56,000, last week, 47,979; sheep, 21,362, last week, 10,346. Our receipts are 4,000 less cattle, 8,000 more hogs and 11,000 more sheep than last week. With less cattle and a good local and export demand, prices have ruled yesterday and to-day 15 to 20 cents higher than last week, and in some cases 25 cents higher. The best tidy, fat, 1,000 to 1,200-pound steers and good fat cows and heifers 20 to 22 cents higher than a week ago. Export cattle 10 to 15 cents higher, also heavy fat shippers about same advance as exports. Fat bulls and veal calves firm and higher. With this advance in all fat cattle good stockers and feeders are 10 to 15 cents higher; in a few cases on extra quality of feeders 20 cents higher. We think good, fat, finished cattle had as well come, as we doubt the advance in near future being equal to cost of feeding longer. Would prefer putting same feed in good butcher stuff, either cows and heifers or light steers suitable for packing-house trade.

"One more very unsatisfactory week in our hog market, both in regards receipts and prices, but at present prices we think this a good time for shippers to buy; and think also feeders had as well let their hogs that are ready for market come, as we can see nothing to warrant holding such hogs longer, as our advance will be slow, as there seems to be many good hogs yet in the country to come to market. Tops, \$3.90 for very fine; average, \$3.70 to \$3.80; lights, \$3.50 to \$3.65.

"Our sheep market has been from steady to 10 cents higher every day this week except yesterday, and on very large receipts they broke from 10 to 15 cents, but again to-day selling strong to 5 cents higher."

Chicago Market Review.

Our Chicago correspondent writes under date February 16 as follows:

"Receipts of stock this week as follows: 43,324 cattle, 1,167 calves, 234,234 hogs, 67,012 sheep.

"The cattle market continues to be moderately supplied. The 'flood' of receipts following the snow blockade failed to flood as it was scheduled by the buying side and our supply this week will show about 20,000 less than we had the same week last year. This continued light supply has finally caused a turn in the market that looks healthy. It has stimulated the demand very materially this week, and, with a brighter turn in financial conditions and the opening up of transportation facilities, which have been greatly impeded, both on land and sea, by the storms, we think there should be a season of prosperous markets. On the opening day of the week trade was a drag, but since then there has been an encouraging turn, the demand has been brisk and values have appreciated 20 to 25 cents on all useful descriptions of beef cattle, and at the advance the supply has been closely cleaned up. The common and medium grades, in fact everything that killers can use have been getting the benefit of the improvement this week. Cow stock is selling well compared with steers. Feeders of good quality are selling well, but there is little or no demand for thin shells of stockers. We quote: Extra heaves, \$5.25 to \$5.60; good to choice 1,350 to 1,600-pound steers, \$4.40 to \$5.20; choice fat light steers, 1,050 to 1,200 pounds, \$4.25 to \$4.80; ordinary to good, same weights, \$3.50 to \$4.25; fair to good feeding steers, \$3.00 to \$3.80; thin to fair stockers, \$1.85 to \$2.75; good to fancy cows and heifers, \$3.25 to \$4.00; fair to good cows, \$2.25 to \$3; canners, \$1.25 to \$2.35.

"In the hog branch of the trade the 'flood' came and it was a complete record-smasher. Monday's receipts, 74,551, which beat the record by over 7,000. It was a great day for packers; they pounded prices 25 to 30 cents under last week's closing figures and then scooped in about 50,000 of the supply. Tuesday their active buying gave the market a better color, values strengthened up and by Wednesday closing had regained 15 to 20 cents of the loss, but again lost most of this before the close Thursday. The market seems to be in a flighty, unstable tone, and with a rush of hogs to market, of which some fears are expressed, another bad slump would not be surprising, but conservative marketing would be apt to

prevent prices from going much lower, if it would not fairly sustain and strengthen them. The quality of hogs does not show any improvement. Yesterday (Friday) the receipts were 40,000, market 20 cents lower than the preceding morning, or back about Monday's quotations. To-day, with 22,000, market ruled active and from 5 to 10 cents higher. We quote: Good to prime heavy, \$4 to \$4.20; assorted butcher weights, \$4 to \$4.15; good to choice mixed to packers, \$3.95 to \$4.10; roughish heavy packing grades, \$3.90 to \$4; good to best mixed to shippers, \$4 to \$4.15; assorted light, \$3.90 to \$4.05; light mixed, \$3.80 to \$3.95.

"The market has been overdone in the way of supply of sheep this week and the result has been a down turn in values. Prices were fairly sustained on the first two days of the week, but on the two succeeding days were set back 20 to 35 cents on about all descriptions except fancy lambs. The fact that exporters have been uncertain of being able to get steamboat room has been one of the bear features, but these down turns may be expected on heavy receipts. General conditions are still regarded as favoring good markets. We quote: Prime native wethers, \$3.85 to \$4.15; good to choice mixed ewes and wethers, \$3.75 to \$4; medium to good sheep, \$3.85 to \$3.65; culls, \$1.50 to \$2.75; choice lambs, \$5 to \$5.50; medium to good, \$4.25 to \$5; common, \$3.75 to \$4.25.

"At the opening of trade on 'change to-day it was evident that the heaviness in grain markets at the close Friday must force a further decline.

"Wheat broke 1 cent from the Friday closing price, an hour before the closing time. It was not the result of raiding or professional bear pressure, it was the weight of wheat that did it. There was a great deal of talk about the Smith line of long wheat. Many thought much of it came out for two days past, others said the line was let go this morning, but whether this line was sold Thursday, yesterday or today, it was clearly selling by longs that depressed the market. Holders acted as discouraged yesterday around 53½ cents as they did four weeks ago around 58 cents. The week's movement was much heavier than last and the exports four ports being light the visible supply will decrease but little, probably 500,000 to 800,000 bushels. Everything in sight is of a bearish character.

"Corn traders had but little news for the day and the market was mostly influenced by wheat, yet the break of 1 cent in wheat was followed by an extreme decline of but ¼ of a cent in May corn. Primary receipts for the day looked light at 190,000 bushels, but Peoria added 127,000, making the movement 317,000 or only 70,000 bushels short of the liberal receipts of a year ago.

"Business was fairly brisk in oats, the selling being free and general, but broke with the other cereals and closed ¼ to ½ cent lower.

"There was an easier feeling in the barley market though no change was quoted in values.

"A firm cash market was reported for rye but future ruled easier. There was a reckless selling of pork and lard occasionally by the brokers of the largest packers in the world, at the same time ribs rest on a support as solid as a rock.

"Closing quotations: May wheat opened 50½¢, closed 49½¢; May corn opened 44½¢, closed 44¢; May oats opened 29¢, closed 28½¢; May pork opened \$10.22½, closed \$10.12½; May lard opened \$6.62½, closed \$6.52½; May ribs opened \$5.32½, closed \$5.27½."

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"Among the Ozarks,"

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J. E. LOCKWOOD, Kansas City, Mo.

Horticulture.

Intense Horticulture.

By A. S. Parson, read before Finney County Farmers' Institute, January 30, 1895.

I am fully aware of the immensity of the subject the committee has seen fit to assign me, and painfully aware of my inability to do the subject anything near justice. However, I will briefly outline a few of my ideas, not theoretical ideas, but ideas I have paid dearly for to that best of all teachers, "experience."

By intensive methods in horticulture we prosper, by slipshod or chance methods we fail. The time is fast coming when the slipshod or chance farmer will have to seek other means of making a living. One of the first steps in intensive horticulture is irrigation. Why? Because by irrigation we make sure of one of the principal elements of plant growth. The second is feeding or fertilizing the soil, and the third is cultivation. After my first year's experience here I realized that while the native soil, with plenty of water, would produce immense crops of some vegetables, there were others that needed something more. I spoke of manuring, but old settlers said I would ruin my soil. I listened but hauled manure and have continued to haul, and at the present time am paying 75 cents per wagon-box full of manure delivered on my place. If it did not pay I would not do it. I will just say, by way of reminder: It takes just so much water to cover one acre of land; it takes so much labor to cultivate one acre and just so much seed to seed it. Now, if my neighbor seeds, waters and cultivates ten acres, and I seed, water and cultivate five acres and harvest the same amount, who is ahead? I can do this and more, provided my neighbor holds to his old idea of no manure.

The all-important thing is water. Without water you can do nothing. With water you can grow fair crops; with water and manure you can grow better; with water, manure and thorough cultivation you need have no fears of the "wolf at the door." By plenty of water, heavy manuring and good cultivation I have grown the past season at the rate of 1,431 bushels of fine onions to the acre, and 100,000 bunches of nice celery at comparatively little extra expense over what I would have incurred by neglecting either of the essential points—water, manure and thorough cultivation. You say those are big figures. So they may seem, but they are true, nevertheless.

My onions were of the Prizetaker or Spanish type, sown the last of February. The ground had been heavily manured the year previous; plowed the fall before, and just before seeding I top-dressed a part of it with chicken manure at the rate of about two tons per acre. Then it was harrowed, dragged and raked until it was put in first-class condition for seeding. I used about three pounds per acre, thinning out when about the size of straws and resetting where they were missing, and watered whenever the ground showed the necessity for it, always cultivating as soon after watering as practicable.

My celery was planted on land that had been heavily manured the year previous, plowed early in the spring and top-dressed with at the rate of 1,500 pounds of special celery fertilizer and 300 pounds of nitrate of soda, then planted to radishes and lettuce, which yielded at the rate of \$720 per acre; then I followed this up with a dressing of twelve tons sheep manure, which I plowed in with a five-toothed cultivator, after which I set my plants, setting them in rows ten inches apart and five inches apart in the row, the object being to grow them close enough to exclude the light and make it self-blanching, which is practical with such varieties as White Plume. After setting, I cultivated in at the rate of 1,500 pounds more of the special fertilizer, making in all 3,000 pounds, which would cost, laid down here, about \$75; the sheep manure (through the kindness of Friend Stotts) I got for the hauling, the nitrate of soda (which I think could easily be dispensed with

without detriment to the crop) cost about \$10, making an outlay for fertilizer of about \$85, with proceeds to the amount of \$2,220, counting the celery at 1½ cents per bunch, which would be a liberal figure.

But hold on! "All is not gold that glitters." Do not plant 160 acres this spring. Better by far try 160 square feet if you have had no experience, and see what success you have. There are a number of essential points to be observed, the neglect of any one of which will bring partial or complete disaster. First, you must have a complete stand; a missing plant causes the loss of four more. A few minutes neglect the day of setting causes a total loss, and a day's neglect any time during the growth is liable to cause a heavy loss in quality.

Again I say, for the intense horticulturist, there is profit, but for the man who has no love for the business, but is led by the idea that if one-fortieth of an acre will pay, one acre will pay forty times as much, take my advice and do something else.

Faulty Apples.

EDITOR KANSAS FARMER:—Apple-growing is receiving more attention from growers than ever before. That they can be grown with good profit is shown by the successful orchardist in the State. That others fail in the result for profit is equally true, and for reasons. Foremost, is to grow the trees. No variety, however good the fruit, will become popular that fails to make a strong, vigorous tree. They are rejected alike by the nursery and the farmer, who always wants a thrifty tree to start with. Then trees are wanted that produce full crops, well colored, good size. Quality is last considered. It is easy enough to select varieties with one or more points in their favor, but to get a perfect, ideal apple is not so easy. Yet on the successful or right selection of variety depends the final result—financial success.

After an experience of twenty-eight years in the State in nursery and fruit-growing, experimenting largely in testing varieties, I find many varieties inferior and unworthy of the room they occupy, yet these same varieties are grown and ordered of nurseries by farmers for their own orchards, where they expect to devote the money, land and labor of years over trees, and will, in all reason, never get enough in fruit to pay for the land the tree occupies; among them are the Lawver, McAfee, Gilpin, Red Winter Pearmain, White Winter Pearmain, Yellow Bellflower, Fameuse, Mann, which may do elsewhere, but any man is foolish to plant them when many others are better by far.

A little more definite objection in the above list may be made by stating the Lawver does not bear over a few samples any year. The McAfee will bear full crops, but will scab and drop before they ripen. Gilpin is too small and of insipid quality. The two varieties of Pearmain, thrifty growing trees, as all the others are, but short lived in orchard and produce scabby fruit. Yellow Bellflower is superb fruit but not fruitful. Fameuse scabs so as to be unfit for use. The Mann is a large green apple, good shape, but never cooks tender. This apple came from western New York and was recommended to be a very productive, grand apple for table or kitchen use. It may be in New York, but in Kansas such quality never developed in them; and yet for these, when first offered, as many farmers will yet remember, they paid 50 cents to \$1 apiece for Lawver, which was afterwards renamed Delaware Red Winter. The writer even paid \$5 for six trees to try them and found out the fraud. The McAfee was for years sold for 50 cents each, and the Mann was sold for an advance above the usual price. The Red Betigheimer should be classed among the frauds, that was also sold as with the sound of trumpets, not that trees are not worth money, but the frauds usually get the fancy prices. In these things an experimental ground to test comparative value of fruits is of great value, as it takes years to establish these facts, besides the expense, but varieties that are good become more valuable because we know whereof we speak and do.

Lawrence, Kas. A. H. GRIESEA.

Chestnuts Want Sandy Soil.

EDITOR KANSAS FARMER:—By way of reply to the inquiry of F. C. Sutherland, of Parker, Kas., I want to call attention to the fact that the chestnut cannot be successfully grown on a limestone soil. It seems to prefer a soil formed of disintegrated granite, gneiss (mica), slate or sandstone. It may succeed in a deep soil of a light silicious character, but all attempts to grow it in a calcareous soil will result in failure. For this reason, in many parts of Kansas at least, the planting of chestnut trees might as well be abandoned first as last, since the result must necessarily end in disappointment to the planter.

J. B. THOBURN.

Peabody, Kas.

Mulching Potatoes.

EDITOR KANSAS FARMER:—I think Senator Taylor's article on potatoes is worth many times the subscription price of the FARMER to every farmer who tries to raise any potatoes, and I believe most farmers could raise enough potatoes to do them if they would give them the same care they do to oat or corn field. But most farmers will plant a small patch along the hedge or in the orchard and probably plant small seed, and the chances are ten to one they won't cultivate them more than once, and then wonder why they can't raise any potatoes.

I would like to hear from some who have had experience in mulching potatoes. I believe this the safest way for the average farmer to plant a small patch of potatoes. I expect to plant two acres in this way this spring. Crown Jewel, Early Ohio and Beauty of Hebron are my favorites, in the order I have named.

Prosperity to the grand old KANSAS FARMER. H. M. STUTSMAN.

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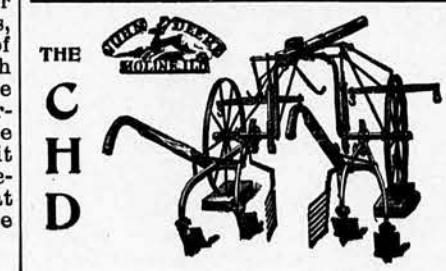
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UR invited to send for my latest price list of small fruits. Half million strawberry plants, 300,000 Progress, Kansas and Queen of West raspberry plants. B. F. Smith, Box 6, Lawrence, Kas. Mention this paper.

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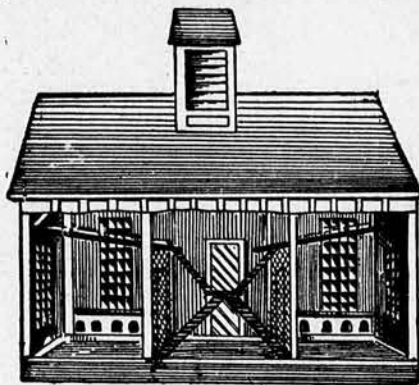
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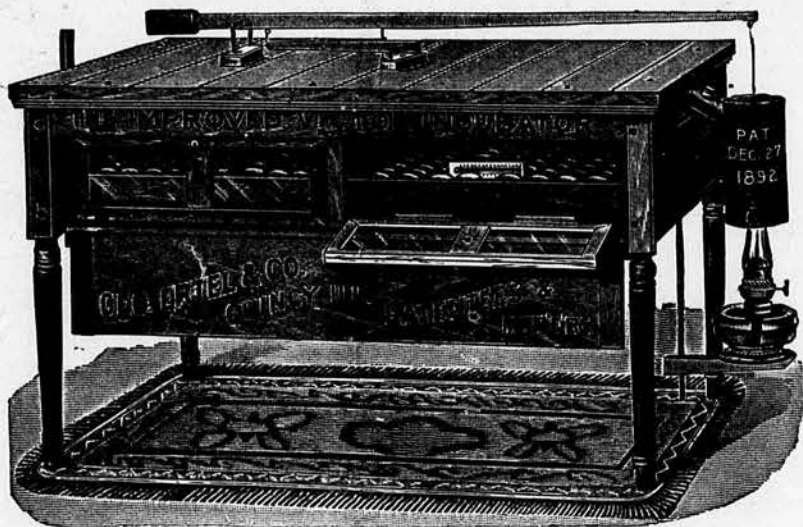
Model Henhouse.

There seems to be, writes George E. Scott in the Ohio Farmer, a great demand for cheap, comfortable, roomy henhouses, both on farms and suburban places, and especially among the daughters of farmers and business men living out of cities in comfortable country homes. The cheapness of building, the small expense of stocking up with a good flock of hens, and the rapidity with which an increase is obtained, are some of the attractive features of the business. By close attention, properly protecting, feeding and providing good sanitary conditions, a handsome income can be got out of the business. Without experience or knowledge no person can expect to succeed. It is the better part



A MODEL HENHOUSE.

of wisdom to start slow, or rather on a small scale, acquiring knowledge by



IMPROVED VICTOR INCUBATOR.

observation, reading and experience.

The other day a fashionable young lady stopped me on the road and told me she was about to embark in the poultry business, and wanted to talk poultry. This lady, belonging to one of the oldest and wealthiest families in our township, was making actual preparations to take up the chicken business for profit and occupation, no doubt fearing she might come to want some day. But admiring her genuine Anglo-Saxon grit, I bid her God-speed told her she had better go out to "Maple Valley Farm," my boarding house, and talk to a certain lady of my acquaintance residing there, and get chuck full of chicken enthusiasm. And out she went. I learned later that eggs, this winter, are to be plentier, if not cheaper, from an overdose of hen enthusiasm.

This landlady of whom I speak is, and always has been, an excellent poultry-raiser. I am fully persuaded that women are better adapted to poultry raising than we men folks are. I have watched this particular woman at the business, and she has often told me that I was "too awkward for anything" about the henhouse, and was better calculated to build henhouses, chicken-coops and raise feed for the hens and chicks, than to care for them.

When a woman says a thing she means it, and I took her at her word. Since that hour I have only watched the modus operandi as a sort of chief executive of the hen department. I built a henhouse, and have reproduced it on paper. What is wanted nowadays is a respectable appearing house, roomy and not expensive and at the same time comfortably warm.

I would start my building with eight logst posts set 2 1/2 feet in ground,

with about 6 inches above surface. On these posts lay edgewise four 2x6 hemlock joists, spiked and toe-nailed to posts in rectangular shape, 10x24 feet, with an upright 2x4 studding at each post, of height to make the building 8 feet to square from top of post to plate. A plate of 2x4 studding should run around the structure.

The frame, after being squared up, plumbed and braced, should be weather-boarded with surface hemlock and well battened on outside. Door and windows should be placed as indicated, with one window just opposite the entrance door and either wired or latticed for protection.

The overhead platforms for catching droppings from roost should also be made of cheap hemlock, and roosting bars conveniently adjusted above the boards so a scraper can be worked handily. The partitions are made of ordinary lath, latticed together, with doors to allow entrance to either side apartment or left ajar for laying room or closed for hatching.

I should prefer single roof or slate to avoid excessive heat during summer. Slate cools quickly after the heat of the sun leaves it. A lining of some good vermin-proof material adds some to expense but very greatly to the comfort and profit of the fowls. The interior of the house should be raised by filling at least six inches above the outside ground with tightly-fitting boards on outer edge at base of building.

Nests can be distributed over the house to suit the needs of the fowls, and convenient climbers adjusted at back part of center room, as indicated in the illustration. One of the rooms can be left off where less room and expense are required, leaving a building

of 10x16, which would be large enough for a flock of fifty hens or even more.

My reason for constructing out of hemlock is that that material can be purchased at from \$12 to \$14 per M, which would make the cost of construction at least one-third less than out of the cheapest pine, and last just as long and look equally as well.

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If you would rather be a straggler than successful in the poultry business you have probably no interest in the Ertel Improved Victor Incubator or Brooder.

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In the Dairy.

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

Remarks by Mrs. Otis.

Remarks by Mrs. Otis, at the Kansas Dairy meeting, and discussion thereon:

Mrs. Otis:—I belong to an organization where part of the time is devoted to a call for suggestions for the good of the order. I would like to make a suggestion for the good of this organization. In listening to the papers read and discussions made here, we realize more than ever before the advantages of co-operation in dairying; not only the advantages for the money received for the dairy products, but the advantage to the whole family when the work is taken from the old and worn-out wife through co-operation in creameries. Yet we see that this association is composed mostly of creamery men and supply men.

Yesterday, when you were calling for donations, you called for donations first from the creamery men, then you called for a donation from the supply men, but you did not come down to home dairy. You did not refuse to accept but you did not recognize the women. Under the existing conditions of the State, we are compelled to operate mostly through the home dairy.

If this organization wishes to reach and accomplish great good, it must be done through the homes. Have heard women in this country who have said that they had no advantages for making butter. Cannot make it good enough to supply the regular customers. They must take it to the store and take any price they can get.

You must reach the homes not only through the men but through the wives of the farmers. There is no greater interest in the State of Kansas than the dairy interest and an organization like this brings that thought before those who need it. This association has only a few women members. I think that for some years I have been the only one, and since the recent defeat of the amendment, you may rest assured that some of us women are not sure where you want us.

We are sure you want us over the cook-stoves, but we are not sure you want us in your meetings. It is true ever since the time woman was created from the rib of Adam, that woman has been considered a "side issue." Not only in politics, but in dairy associations, she must come in as an equal factor.

Yesterday you men, some of you, contributed enough money for the use of the Legislative committee to make 110 women members of your association. Had you done this you would have given names of women on your list, that would have gone out and been published and would have created a new interest in the association. It would have brought out more women at your next meeting, but you did not think of it, and now I want to plead with you men here to make your wives members.

Yesterday I saw some of my own neighbors and friends here, who have just as intelligent wives as they are intelligent men, but their wives were not here, and there are men here on the floor that I feel well acquainted with that I do not know to-day whether they have a wife or not. I know that they are successful dairymen, and infer from that that they have a helpmate and companion.

I want to move that the wife of the

elected President shall present a paper on the "Advantages of the Creamery Over the Home Dairy" at the next meeting. I suppose it is not in order for me to say a word after making a motion, but I would like to make one more remark. I know not whether the man you have chosen has a wife or not, but I do not think he will make a good President if he has not a wife.

I want the women to feel that they are a part of this organization and then they will draw in the women from the surrounding country.

Mr. Brandt:—I thank Mrs. Otis for this rub, and every man that is a member ought to place his wife's name over his own.

The motion that the President's wife write a paper and read it before the next meeting was carried.

Mrs. Otis:—I want you brothers to go home and urge your wives to come out to the next meeting, and when we have a contest for the best-looking butter-maker, I recognize that the men have just as good a right as the women, but would like to see the women in the competition and want to congratulate Mr. Brandt on securing the premium.

Mr. Anderson:—I heartily approve Mr. Brandt's idea and wish to say that my wife was a member two years. She entered a tub of butter and it scored 93 points.

Mr. Brandt:—Every one engaged in the dairy business depends upon his wife for his success. There is not a wife but what is interested.

World's Fair Dispute.

A report on some dispute about the World's Fair premiums was read by Mr. A. E. Jones, at the State dairy meeting, as follows:

"The committee appointed at the session of 1893 to settle the matter in dispute between Mr. R. L. Wright, Superintendent of the dairy exhibit at the World's Fair, and Mr. A. G. Eythe, of the Enterprise creamery, beg leave to submit the following: As near as the committee could ascertain, the disputed point was in regard to the rule which required that exhibitors would not be entitled to an award unless their exhibits covered the full period of four months. It seems that Mr. Eythe has butter made in three or four different factories and sent a consignment for the June exhibit from three different creameries, and it appears from the bills of lading that the three lots were sent at one time as being from the Enterprise creamery, but Mr. Wright, for some reason, made the entries as from three distinct creameries, whereas they should have all been entered as from the Enterprise creamery. By shutting out the two lots from Shady Brook and the Woodbine creameries and allowing only the one from Enterprise, the score was reduced one point. This committee is of the opinion that the three consignments should have all been entered as from the Enterprise creamery, which is the one where the principal business of the company is transacted. In doing this the score would stand, Enterprise creamery, 379 points; Abilene creamery, 378 1/2 points; Meriden creamery, 378 1/2 points. This would give the first prize to the Enterprise creamery and the second to be divided between the Meriden and the Abilene creameries, and the committee so direct.

"A. E. JONES,
"R. T. STOKES,
Committee."

It was moved and carried that the report be accepted, the committee discharged and that the Secretary be instructed to give first premium to Mr. Dieckelman, Mr. Eythe's butter-maker, and divide the second between the other two, Meriden and Abilene.

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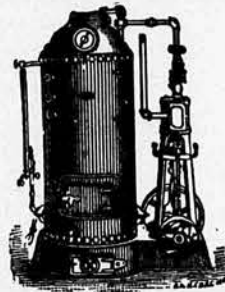
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FIELD NOTES.

One of the junior Brown county breeders, Martin Meisenheimer, of Hiawatha, whose farm lies three miles from the county seat, reports to the writer that his herd is coming through the winter in excellent condition. The fine array of brood sows are among the best in Brown county's strongest State of Kansas collection. Some of them are due to farrow in February. Among the late visitors he reports Mr. Leonard, the well-known and successful Nebraska breeder, who, according to the Hiawatha Journal, says: "His annual sale last fall made the highest average of any public sale of Poland-Chinas in southeastern Nebraska. He spoke very flatteringly of John A. Dowell's Rosedale herd, near Robinson, also of Mart. Meisenheimer's, who he said had the nicest herd he had seen for a long while." Mr. Friedly, another Nebraska breeder, looked over Tecumseh Free Trade 10783, that stands at the head of the Meisenheimer herd, and pronounced him the best individual that he had seen in his three weeks' round in Iowa and northern Missouri.

Among others engaged in successful swine breeding in northeast Kansas, is the veteran of eighteen years experience, Mr. C. J. Huggins, whose quarter-section farm lies one and a half miles north of Wamego, in southern Pottawatomie county. He has been from his youth up a practical farmer and stock-grower, breeding mainly Chester White swine. Until two years ago he was associated with his father, the late Judge James L. Huggins, one of the early pioneers of Kansas and widely known by the free State men in Territorial days. On the old homestead, where the herd is now located, the visitor finds, after the last season's reduction sales, about fifty head, among which are eight aged brood sows, headed by the aged harem king, Ben Buster 6189 S. C. W. R., that was sired by Governor Bishop 2197, he by Governor Scott 221; dam Cognette 5216 by Sir Wilhelm 2385, and out of Lady Blaine 4118. He is now in his four-year-old form, and after two years' service was sold, and after a year's absence his need of return was felt and he was accordingly bought back. He came originally from the Silver's Ohio herd and possesses the characteristics common to the Silver strain, of being an easy keeper. In the female division of the herd is the old stand-by, Mrs. Romeo 7870 by Romeo 5087, and out of Juliette 6520. Her litters always prove profitable ones and of high quality. There is one that has perhaps a little more of the more fashionable and later day conformation characteristics, Kansas Queen 7862, a Todd sow that was bred by Seeley, of Iowa. She was sired by Ampeer 781; dam Fairy 1802. She shows a good head, face and ear, wide-chested, broad-backed, deep-flanked and a wide, deep, thick ham, is one of the early-maturing, easy-keeping kind. Her prospective litter is expected to be one of more than just ordinary. Close up stands My Choice 7866 by Romeo 2d 6729, and out of Kansas Queen 7862. The daughter will, on reaching her matured form, probably score as high as does her mother. Iowa Beauty 7860, a Todd bred sow, sired by Ample 2631 and out of Sun Ray 2d 4570, with two Nancy Hanks sows (5th and 6th), bred by the well-known Kansas breeder, Waltmire, of Carbondale, are examples of what may be done on Kansas soil. Another favorite is the aged queen, Mrs. Ben Buster 7872, that has proven herself one of the profitable kind. In the younger division are about twenty of summer of 1894 farrow and the same number of fall pigs. Among them are some choice ones that should go out into the hands of new masters. Mr. Huggins and his two sons are planning for more extensive operations, and if all works out, more will be heard from the Huggins farm and herd in the future.

Among the old settlers in Franklin county that are well and favorably known, is Mr. Samuel McCullough, whose farm of 180 acres lies three miles west and one south of Ottawa, the county seat. The farm is situated in the Marais des Cygnes river valley and has been the continuous abiding place of its owner and family for twenty-seven years. Twenty-six years ago Mr. McCullough brought the first pure-bred Berkshires into Franklin county from Illinois, and was first to register the up-eared swine in the county. His herd now consists, after the past season's reduction, of about forty-five head, all ages. The fifteen aged brood sows are presided over by three harem kings. Cleremont Duke 13837 A. B. R. by Royal Duke 360, that was bred by the Snells, of Canada, leads the van. Such is his toppy Berkshire character and conformation that five of his daughters have been retained for usefulness in the herd. His dam was Cleremont Bell 1087, that also came from the Snell herd. He has always been a first-place winner when shown in the prize ring and has to his credit a first place record at Kansas City, Topeka and several district and county fairs. Among the youngsters of fall of 1894 farrow are several of his sons and daughters that are coming on in nice form. His chief lieutenant is the five-year-old Charmer's Duke

32299, that was bred by C. L. Sampson, of Toronto, Canada. He was sired by the Imp. Knight of Bath 17189 B. B. R. and out of Charmer XVIII. 17190 A. B. R. A number of the brooders and a string of nice, strong, thrifty sons and daughters in the youngster division are to his credit. The youngest of the trio is, as his master thinks, the best individual animal ever on the farm. Royal Duke, farrowed May 15, 1893, sired by Imp. Patentee 14179 B. B. R., winner of first prize at the Royal England show, as well as the leading Canadian shows of 1884. His sire was imported by the Snells, the foremost of Canadian importers and Berkshire breeders. The young fellow will weigh, when in his show ring form, over 800 pounds. He is what every swine-breeder calls "one in a thousand," and possesses, with his strong Berkshire character and conformation, a splendid disposition. The female division consists of individuals belonging to the Oxford Bells, Cleremont, Royal Brides and the Pride Bells families. The visitor will find the prospective spring pig crop an excellent one. All the males belonging to the pig crop of 1894 old enough for immediate service are gone out to new masters. There are six bred gilts of extra good breeding and promise that are ready to go. About twenty, of both sexes, belonging to the fall of 1894 farrow are coming on and are in good promise for service during the coming spring. During the day of the visit at Friend McCullough's, last week, several parties called and bought cockerels that belonged to the high-class flock of Barred Plymouth Rock chickens, consisting of over one hundred, that belong to the Felch, of Massachusetts, and the Munger, Williams and Conger strains. The well-known Pomona, Kas., poultry breeders, J. T. Harrah and E. A. Mott, were visitors, and the latter selected two cockerels and carried them off to re-enforce his flock. There were left ten choice cockerels and about as many pullets from which the visitor could make selections. Eggs in season go at \$1 and \$2 per setting of fifteen. The flock of Bronze turkeys is presided over by the fifty-one pound gobbler that is as big and handsome as anybody's turkey. Two good toms and several hens can be spared. Toms \$2 to \$3 each, hens \$2 to \$2.50.

Among others in the State of Kansas that have succeeded in swine husbandry, is the veteran breeder, Mr. A. E. Staley, whose farm adjoins the city of Ottawa, the county seat of Franklin county. Mr. Staley began making a specialty of Chester Whites ten years ago, by laying a foundation with the most improved that could be had at that time, and has constantly kept in touch with the progression of the East in selecting his annual re-enforcements for the farm. Two years ago he selected a strong Poland foundation and established himself as a breeder of Poland-Chinas. There are now on the farm about eighty head of both breeds, all ages. Another feature that is sure to attract the attention of the visitor interested in high-class live stock is the flock of way-up Light Brahma fowls of about fifty, both sexes. In the Chester White division, two harem kings are in command—the yearling Finch by Ottawa Duke, he by M. Z. G. 5277 N. C. W. R.; dam Miss Daisy by Thompson King 4157, and out of Dame Waltmire (P. 5778, Vol. 3). He is assisted by the yearling Dorsey Dorsey, sired by Leader 6451; dam White Rose 2d 6744. Both are good ones and belong to the modern Improved Chester White type. In the female division are a strong lot, among them Sunflower 9562 by Ottawa Chief, that was bred by Alexander, of Illinois. Close up is White Bess 10078. As a kind of a maternal adviser the four-year-old Ottawa Maid 10076 by Mike W. 3953, and out of Nellie 2d 7042, plays an important part in the herd. She is what the experienced breeder would call a sure and profitable stand-by. Space forbids that extended notice of the brooders that their merits demand. Five of the choicest ones are safely in pig and something extra good is expected in the coming spring pig crop. There is a nice lot of youngsters coming on and among them are five boars old enough for service and three gilts that are ready to go. Two October litters, aggregating twenty-two head, of both sexes, are coming on and will be ready in due time for spring customers. The Poland division consists of about forty-five head, all ages, and to the Poland breeder is the most attractive. Standing at the head is the three-year-old Moorish Pride 8465 S., sired by Moorish Hero 8087 S.; dam Austena 14739 S. He has proven himself an extra good strong sire and his get generally go as soon as they are weaned. He is assisted by the long yearling, Ottawa Boy 12498 S. by Solidity 10749 S., and out of Little Bess 24458 S. In her company is the aged brooder, Mazy 3d 6121 S. by Bruce 2058 S.; dam Mazy 2d 3895 S. She is the reigning queen of the Poland herd and one of the kind that every experienced breeder regards the profit-maker and recruiting fountain of the home produce. Such is her high character that five of her daughters have been retained in the herd—one two-year-old, two yearlings and two of the

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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 this 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.

DOG AILING.—I have a dog that has been scratching himself for about four months and has the hair all off of the under side of his body and ears. Will you tell me what to do? C. L. W. Cunningham, Kas.

Answer.—I am not able to say whether the dog has mange or eczema. Try the following: Oil of juniper, 1 ounce; sulphur, one ounce; vaseline, 7 ounces; mix and apply a little every other day, after washing the parts with warm water and castile soap.

LAME MULE.—I have a ten-year-old mule that, when starting, raises her left hind leg nearly to her body, then sets it down hard. At times she will hold it up as if it hurt her. She has been in this condition for a week. Lebanon, Kas. P. H. S.

Answer.—Your mule has received an injury in some way or has a sore or a swelling; or, if shod, there may be a nail touching the quick. The trouble can only be located by a personal examination. It may leave your mule with string-halt.

QUESTION.—How much flaxseed meal (not oil cake) will be safe to feed to a cow daily from one to two weeks before calving? The idea is to facilitate the expulsion of the placenta after calving. Is the plan a good one or not? Council Grove, Kas. F.

Answer.—The quantity of flaxseed meal to be fed to a cow will depend to some extent upon her size. Begin with one pound daily and gradually increase to two pounds if it does not become too much of a laxative. The oil cake is considerably safer to feed as it is not so rich. Four pounds of the latter constitute the daily ration for an average-sized cow. A better ration for the purpose would be composed partly of turnips, potatoes, cabbage leaves or some other food of the kind, as it is more cooling and thins the blood, preventing, to a great extent, the fevered condition so apt to exist at time of parturition.

Gossip About Stock.

Public sale dates of Poland-China swine are now claimed, as follows: October 4, 1895, Winterscheidt Bros., Horton, Kas., and October 9, 1895, by Geo. W. Null, Odessa Mo.

Just as we go to press, we receive a report of the combination sale of Poland-China swine held at Horton, Kas., on February 13, 1895, by Winterscheidt Bros. and Vansell, which was quite successful. Col. J. W. Sparks reports that one boar brought \$23 and twenty-eight sows and gilts brought an average of \$30.18.

The readers of the FARMER, especially those engaged in breeding pure-bred swine and raising stock hogs, should keep in mind the sale of Mr. L. N. Kennedy, that will take place on his farm, adjoining Nevada, Vernon county, Missouri, on Wednesday, February 27, when he will offer sixty head of registered Wilkes and Free Trade Poland-Chinas. The place is easy of access from eastern Kansas, and it is hoped that Kansas will be strongly represented on sale day.

One hundred head of registered Poland-China swine to go to the highest bidder, without reserve, ought to interest every swine-breeder in the West. They will be the produce of animals that cost from \$100 to \$500 each and of the best strains known in Poland-China history. It will not be a closing-out sale, but Mr. John A. Dowell's annual reduction sale. He is one of Brown county's most successful breeders and his offerings worthy the attention of every hog-raiser. Remember the date, Thursday, February 28, 1895. The reader will see that it comes off next week, on Thursday.

Reduced Rates.

Reduced rate tickets offered by agents of the Nickel Plate road, to Cleveland, O.: National Brick Manufacturers' Association. Tickets sold February 9 to 14. National Electric Light Association. Tickets sold February 16 to 20. National Educational Association (Department of Superintendent). Tickets sold February 16 to 20. Above are reduced rates sold on the certificate plan.

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MARKET REPORTS.

Kansas City Live Stock.
KANSAS CITY, Feb. 18.—Cattle—Receipts to-day, 3,200; calves, 43; shipped Saturday, 1,165 cattle. The receipts were rather light and the market opened active and 10c higher on nearly everything. The supply was largely in the quarantine division. The following are representative sales:

| SHIPPING AND DRESSED BEEF STEERS. | | | | | | | |
|-----------------------------------|-------|-------|--------|----|-------|-------|--------|
| 30 | | 1,534 | \$4.85 | 18 | | 1,396 | \$4.85 |
| 21 | | 1,415 | 4.80 | 19 | | 1,374 | 4.75 |
| 19 | | 1,263 | 4.90 | 19 | | 1,213 | 4.60 |
| 21 | | 1,252 | 4.90 | 40 | | 1,231 | 4.40 |
| 22 | | 1,205 | 4.55 | 20 | | 1,140 | 4.40 |
| 16 | | 1,085 | 3.95 | 2 | | 895 | 3.75 |
| 4 | | 900 | 3.55 | 1 | | 1,080 | 3.50 |
| 1 | | 1,150 | 3.50 | 46 | | 781 | 3.45 |

| TEXAS AND INDIAN STEERS. | | | |
|--------------------------|--------|--------------------|--------|
| 147 c. m. f. 1,050 | \$4.20 | 148 c. m. f. 1,060 | \$4.20 |
| 40 c. m. f. 1,202 | 4.20 | 68 c. m. f. 1,113 | 4.15 |
| 21 c. m. f. 1,081 | 4.00 | 19 c. m. f. 994 | 3.75 |
| 33 c. f. 990 | 3.75 | 39 c. m. f. 991 | 5.70 |

| WESTERN STEERS. | | | | | |
|-----------------|-------|--------|------------|-----|--------|
| 17 s.w. mix | 1,081 | \$4.65 | 24..... | 820 | \$3.40 |
| 2 s.w..... | 850 | 3.35 | 1 Ark..... | 570 | 2.75 |
| 1..... | 650 | 2.50 | | | |

| COWS AND | | HEIFERS. | |
|----------|------------|----------|------------|
| 4..... | 910 \$3.60 | 47..... | 761 \$3.50 |
| 1..... | 1,270 3.50 | 8..... | 1,072 3.40 |
| 11..... | 1,000 3.35 | 28..... | 853 3.30 |
| 3..... | 1,030 3.25 | 2..... | 725 3.25 |
| 1..... | 1,200 3.25 | 1..... | 900 3.25 |
| 3..... | 1,100 3.20 | 22..... | 981 3.20 |
| 1..... | 910 3.15 | 6..... | 757 3.15 |
| 3..... | 1,116 3.15 | 1..... | 1,200 3.10 |
| 5..... | 1,198 3.15 | 3..... | 1,116 3.00 |
| 24..... | 632 2.80 | 21..... | 889 2.65 |

| TEXAS AND INDIAN COWS. | | | | | |
|------------------------|-----|--------|--------------|-----|--------|
| 5 c. m. f... | 786 | \$3.00 | 10 c. m. f.. | 695 | \$2.75 |
| 25 c. m. f... | 842 | 2.70 | 51 c. m. f.. | 713 | 2.65 |
| 10 c. m. f... | 695 | 2.25 | | | |

| STOCKERS AND FEEDERS. | | | | | |
|-----------------------|-----|--------|---------|-----|--------|
| 1..... | 760 | \$3.00 | 1..... | 970 | \$3.50 |
| 23..... | 876 | 3.45 | 32..... | 832 | 3.25 |
| 29..... | 647 | 3.15 | 9..... | 770 | 3.05 |
| 1..... | 870 | 3.00 | 1..... | 730 | 3.00 |

Hogs—Receipts, 4,035; shipped Saturday, 1,089. The market was active and 5c higher on all weights. The supply was light and packers were out early and eager to buy. The top was \$4.05 and the bulk \$3.70@3.90, against \$4.00 for top and \$3.70@3.85 for bulk Saturday. The following are representative sales:

| | | | | | | | | |
|---------|-----|--------|---------|-----|--------|---------|-----|--------|
| 38..... | 373 | \$4.05 | 58..... | 331 | \$4.00 | 62..... | 315 | \$4.00 |
| 70..... | 290 | 4.00 | 60..... | 202 | 3.95 | 14..... | 293 | 3.95 |
| 7..... | 262 | 3.95 | 67..... | 247 | 3.92½ | 82..... | 230 | 3.90 |
| 56..... | 215 | 3.85 | 69..... | 234 | 3.85 | 71..... | 215 | 3.85 |
| 48..... | 238 | 3.85 | 69..... | 231 | 3.85 | 67..... | 235 | 3.85 |
| 74..... | 214 | 3.80 | 83..... | 223 | 3.80 | 76..... | 235 | 3.80 |
| 61..... | 224 | 3.80 | 79..... | 163 | 3.80 | 25..... | 244 | 3.80 |
| 90..... | 226 | 3.77½ | 59..... | 222 | 3.75 | 65..... | 232 | 3.75 |
| 30..... | 214 | 3.75 | 91..... | 220 | 3.75 | 57..... | 204 | 3.75 |
| 39..... | 218 | 3.75 | 67..... | 186 | 3.75 | 53..... | 184 | 3.75 |
| 53..... | 223 | 3.75 | 83..... | 207 | 3.70 | 44..... | 226 | 3.70 |
| 55..... | 180 | 3.70 | 94..... | 185 | 3.70 | 75..... | 184 | 3.70 |
| 74..... | 186 | 3.70 | 78..... | 167 | 3.60 | 49..... | 176 | 3.62½ |
| 14..... | 154 | 3.60 | 10..... | 181 | 3.60 | 20..... | 150 | 3.60 |
| 54..... | 165 | 3.55 | 52..... | 115 | 3.55 | 52..... | 123 | 3.50 |
| 20..... | 133 | 3.50 | 20..... | 131 | 3.50 | 12..... | 117 | 3.40 |
| 32..... | 97 | 3.40 | 6..... | 125 | 3.40 | 3..... | 100 | 3.40 |

Sheep—Receipts, 2,394; shipped Saturday, 500. The market was steady with Saturday's close, but trade was slow. The run was light, being less than six loads. One thousand head were billed directly to Swift and two cars had been sold Saturday. Those on the market were all western fed. The following are representative sales:

| | | | | | |
|------------------|----|--------|------------------|----|--------|
| 239 Mex yr. | 84 | \$4.15 | 244 Mex yr. | 82 | \$4.15 |
| 230 lambs. | 88 | 3.50 | 229 lambs. | 92 | 3.40 |

Horses—Receipts 151; shipped Saturday, 50. The market was rather quiet. There were only a few private sales made this morning. The range of sales do not vary from last week's quotations. The usual Monday dullness characterized the opening.

Chicago Live Stock.

CHICAGO, Feb. 18.—Hogs—Receipts, 44,000; official Saturday, 21,075; shipments, 7,268; best grades firm; common and light weaker; light, \$3.80@4.10; mixed, \$3.85@4.25; heavy, \$3.85@4.25; rough, \$3.85@4.00.

Cattle—Receipts, 13,000; official Saturday, 764; shipments, 244; market slow but steady.

Sheep—Receipts, 12,000; official Saturday, 2,044; shipments, none; market steady.

Kansas City Grain.

KANSAS CITY, Feb. 18.—Buyers of wheat held off to-day, but there was no disposition on the part of holders to make concessions, and prices were nominally steady.

Receipts of wheat to-day, 12 cars; a year ago, 61 cars.

Car lots by sample on track, Kansas City, at the close were quoted nominally as follows: No. 2 hard, 52c; No. 3 hard, 51c; No. 4 hard, 50c; rejected, 47c; No. 2 red, 52c; No. 3 red, 51c; No. 4 red, 50c; rejected, 47c@48c.

Corn was in rather good demand at about the prices ruling Saturday. Some sales of mixed corn were a little higher, and some sales of white were a little lower.

Receipts of corn to-day, 46 cars; a year ago, 63 cars.

Sales by sample on track, Kansas City: No. 2 mixed corn, 3 cars 40c, 12 cars 40½c; No. 3 mixed, 1 car 39½c; No. 4 mixed, nominally, 39c; No. 2 white, 13 cars 40½c; No. 3 white, 2 cars 40c.

Oats were unchanged. There was not much demand.

Receipts of oats to-day, 3 cars; a year ago, 11 cars.

Sales by sample on track, Kansas City: No. 2 mixed oats, 1 car 29½c; No. 3, nominally, 27½c@28c; No. 4, nominally, 27c; No. 2 white oats,

nominally, 31c; No. 3 white, nominally, 30c. Hay—Receipts, 44 cars; market steady; timothy, fancy, \$9.50; choice, \$8.00@8.50; No. 1, \$7.50@8.00; clover, mixed, \$3.00@3.50; low grade, \$3.00@7.50; fancy prairie, \$3.00@3.50; choice, \$7.00@7.50; No. 1 \$1.00@1.50; No. 2, \$1.50@2.50; packing hay, \$3.50@4.50.

Chicago Grain and Provisions.

| | Feb. 18. | Opened | High'st | Low'st | Closing |
|--------------|----------|--------|---------|--------|---------|
| Wht.—Feb.... | 49½ | 50½ | 49½ | 50½ | |
| May.... | 52½ | 52½ | 51½ | 52½ | |
| July.... | 53 | 53½ | 53 | 53½ | |
| Corn—Feb.... | 42½ | 42½ | 42½ | 42½ | |
| May.... | 44½ | 44½ | 44½ | 44½ | |
| July.... | 43½ | 44½ | 43½ | 44½ | |
| Oats—Feb.... | 28 | 28 | 28 | 28 | |
| May.... | 28½ | 29 | 28½ | 29 | |
| July.... | 27½ | 27½ | 27½ | 27½ | |
| Pork—Feb.... | 10 10 | 10 10 | 10 10 | 10 10 | |
| May.... | 10 07½ | 10 30 | 10 07½ | 10 30 | |
| Lard—Feb.... | 6 40 | 6 40 | 6 40 | 6 40 | |
| May.... | 6 50 | 6 55 | 6 50 | 6 55 | |
| Ribs—Feb.... | 5 17½ | 5 17½ | 5 17½ | 5 17½ | |
| May.... | 5 27½ | 5 35 | 5 27½ | 5 35 | |
| July.... | 5 45 | 5 47½ | 5 42½ | 5 47½ | |

Kansas City Produce.

KANSAS CITY, Feb. 18.—Eggs—Receipts very light. There is a better feeling on the market to-day, but some of the commission men expect large receipts to-morrow, which would cause a drop. Strictly fresh quoted at 20c per doz.

Poultry—Receipts fair for Monday; there is no quotable change from Saturday; hens, 5½@6c; mixed springs, 6c; small, 7c; roosters, 12½@15c; dressed chickens, 6@7c. Turkeys, the supply is large and the market is quiet; firm; old gobblers, 4½c; young, 5½c; hens, 6½c; dressed turkeys, 6½@7½c; dry picked, hens, 7½c; young gobblers, 6½c. Ducks, scarce, firm, 7@8c. Geese, alive, 5½@6c; dressed, small and medium, 6@7c; large, 13 lbs. and over, 7@8c. Pigeons, dull, 75c per doz.

Butter—Receipts light and market steady on choice grades, which are scarce; much poor roll can only be sold to packers. There is a good demand for choice roll; common and second grade plentiful and dull; extra fancy separator, 20@22c; fancy, 18@19c; fair, 17c; dairy, fancy, 15c; fair, 12c; fancy roll, 12c; fair roll, 10@11c; packing, steady, 6@8c; old, 5c.

Fruit—Apples, supply moderate; the market is very firm and has a lighter tendency; standard packed ranged from \$3.50@4.00 per bbl.; others, \$2.00@3.00; fancy stand, \$5.00@5.50; Jennettings, \$2.25@2.75 per bbl.; common varieties, \$2.25. Lemons, supply large; steady, \$2.50@3.50. Oranges, active, firm; Mexican, \$2.60@3.00; Californias, seedlings, \$2.00@2.75; navels, \$3.00@3.25; Florida, \$3.00; tangarines, \$2.25@2.50. Cranberries, firm; Jersey, choice, \$10.00@11.50 per bbl.; bushel boxes, \$3.00@3.75.

Vegetables—Potatoes, supply good and market on table stock active; ordinary kinds, common, 40@50c per bu.; sweet potatoes, red, scarce, 20@25c; yellow, 25@30c; Utah and Colorado, market stiffer; choice, mammoth pearl, white, 57@60c. Cabbage, moderate supply, market has a higher tendency; \$1.35@1.45 per 100. Michigan and best grades, \$3.00@3.30 per ton. Cauliflower, small, 45@50c; large, 75c per doz.

THE STRAY LIST.

FOR WEEK ENDING FEBRUARY 6, 1895.

Cherokee county—P. M. Humphrey, clerk. MULE—Taken up by Bernard Kenneday, near Seamon, in Mineral tp., December 25, 1894, one sorrel male mule, black mane and tail, four feet six inches high, 8 years old, had on halter; valued at \$15.

Rice county—Robert Findlay, clerk.

TWO STEERS—Taken up by John H. Bowman, in Pioneer tp., January 2, 1895, two steers, weight about 800 pounds each. One red, crop off right ear; one red, under-bit in left ear, white face, indistinct brand; valued at \$24.

FOR WEEK ENDING FEB. 13, 1895.

Comanche county—D. E. Dunne, clerk.

CALF—Taken up by Wm. H. Slicker, of Protection, January 5, 1895, one red steer, swallow-fork in left ear, weight 350 pounds.

CALF—By same, one speckled female calf, weight 350 pounds.

HEIFER—By same, one red heifer, weight 850 pounds.

COW—By same, one speckled cow, branded JI on left hip and side, weight 550 pounds.

COW—By same, one red cow, weight 500 pounds; above five animals valued at \$40.

Pottawatomie county—Frank Davis, clerk.

STEER—Taken up by Frank McKinsey, in Lincoln tp., January 20, 1895, one red steer, 1 year old, bush of tall white.

Shawnee county—Chas. T. McCabe, clerk.

STEER—Taken up by N. O. P. McComb, in Mission tp., one white steer, 3 years old, branded O. A. Scott, Anthol, Kan., No. 19; valued at \$23.

HEIFER—Taken up by John A. Miller, in Dover tp., one pale red heifer, 1 year old, white spot on hip and white on belly and forehead; valued at \$10.

FOR WEEK ENDING FEB. 20, 1895.

Barber county—F. A. Lewis, clerk.

MULE—Taken up by Z. T. L. Buras, in Hazelton tp., P. O. Hazelton, January 28, 1895, one dark bay or brown mare mule, 2 years old, four feet six inches high, no marks or brands; valued at \$20.

Cherokee county—P. M. Humphrey, clerk.

HORSE—Taken up by Alexander Wade, near Seamon, in Mineral tp., January 25, 1895, one bay horse, fifteen hands high, white hind feet, white spot in forehead; valued at \$20.

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(Continued from page 1.)

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Young sows and boars and spring pigs for sale. Prices reasonable. Stock first-class. W. N. D. BIRD, Emporia, Kas.

SUNNY SLOPE FARM, Emporia, Kas.

200 head of Poland-Chinas, headed by LONGFELLOW 29885 O., who has the best Columbian record of any boar west of the Mississippi. 50 head of Poland-China gilts sired by Longfellow, bred to the following noted boars: J. H. Sanders, Jr., by J. H. Sanders 27219 O., dam Graceful F. 63408 O.; Hadley, Jr., sired by Hadley 27505 O., dam Samboline 8th 59952 O.; Sir Charles Corwin, by Latest Fashion 27396 O., dam Josie Wilkes 1st 69138 O. Combining the blood of Black U. S., Wilkes and Teumesset, combining the leading and show combination and fashionable blood now sought for by breeders.

100 Berkshires, headed by the well-known boar, MAJOR LEE 81139. We have twenty-five gilts, bred from him, to General Lee, of Gentry breeding, and also to Royal Peerless the Great.

200 head of fashionably-bred Herefords.

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TWO-CENT COLUMN.

"For Sale," "Wanted," "For Exchange," and small advertisements for short time, will be charged two cents per word for each insertion. Initials or a number counted as one word. Cash with the order. Special:—All orders received for this column from subscribers, for a limited time, will be accepted at one-half the above rates, cash with order. It will pay. Try it!

WANTED—Millet, cane, Kafir and Jerusalem corn. Send samples. Kansas City Grain and Seed Co.

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

WE MAKE A GOOD FARMER'S SPRING WAGON, two laz backs and let-down end-gate, for \$55. Warranted. Kinley & Lannan, 424-426 Jackson street, Topeka.

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"THE PROOF OF THE PUDDING IS IN THE EATING." The proof of good poultry is the show-room. At the State show, January 8-14, 1895, my birds took two first and three second premiums, and only six birds were shown. Eggs for hatching from as well-bred Barred Plymouth Rocks and Light Brahmas as are in the West, for only \$1 per thirteen. Stock for sale. Henry E. Peers, Marion, Kansas.

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THE FINEST HONEY—Is gathered from alfalfa and clover blossoms. You can buy it of the bee-keeper, cheap and in any quantity, by freight, and know it is genuine. Address Oliver Foster, Las Animas, Colo.

50 LIGHT BRAHMA COCKERELS—Felch strain, that I will sell for \$1 each if taken soon. J. E. George, Burlingame, Osage Co., Kas.

WANTED—Yellow and white millo maize seed by F. Barteldes & Co., Lawrence, Kas.

FOR ALFALFA SEED, DIRECT FROM THE grower, address E. G. Jones, Syracuse, Kas.

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CHESTER WHITE SOWS (BRED), CHEAP.—Fall pigs \$10, express paid. James Jay, LaHoyt, Iowa.

CHOICE INDIAN GAME PULLETS—At a bargain. About thirty select birds for sale. W. V. Church, Marion, Kas.

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SEVEN S. C. W. LEIGHORN COCKERELS, KNAPP strain, that I will sell for \$1 each if taken soon. They are first-class. Cockerels scored 92 and 93½, pullets 94½ and 94¾ at Parsons show by Emery, judge. Elwood Rush, Shaw, Neosho Co., Kas.

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FOR SALE—Pure-bred English Buff Cochins cockerels, \$1 each, if taken before March 1, as I do not wish to move them. Address Peter Gray, Benda, Kas.

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3,000 BUSHELS SEED SWEET POTATOES! for sale. Ten best kinds. Also plants in their season, at bed-rock prices. Inquire of N. H. Pixley, Wamego, Kas.

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Everything offered goes, positively, without reserve.

Sale will take place at farm, two miles west of depot. Free transportation from depot to farm. Terms: Sums of \$20 or over, eight months' credit on bankable note at 8 per cent. interest, or 2 per cent. off for cash. Less than \$20, cash.

Dinner at 12 o'clock. Sale begins at half past 12.

Send for catalogue. L. N. KENNEDY, Nevada, Mo.

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SUB-IRRIGATION PIPE.—Do not be disappointed for not ordering 100 feet of ¾-inch galvanized sheet-iron pipe. Cost, \$1.25. Address Alex Richter, Hollywood, Kas.

CHOICE EARLY OHIO SEED POTATOES—Seventy cents per bushel in sacks or barrels. Early Amber sorghum cane seed, 85 cents per bushel, in sacks. Millet seed, 95 cents per bushel, in sacks. Carloads less. Address Topeka Produce Co., 304 Kansas Ave., Topeka, Kas.

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600 BUSHELS FRESH CANE SEED FOR SALE—Own raising. Sample. K. S. Cornish, Oswego, Kas.

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As a result business is "picking up" wonderfully and prices are looking better in all lines. In Farm Property there will be no exception. Prices that now range are exceeding low—they are bound to advance, and lucky is he who gets a farm in this section of Kansas between this and spring. I have hundreds of way down bargains. First come, first served. You can better yourself now and have money left for other use. Write me now or come and see. Car fare refunded to all purchasers. Address WALTER LATIMER, Garnett, Kansas.

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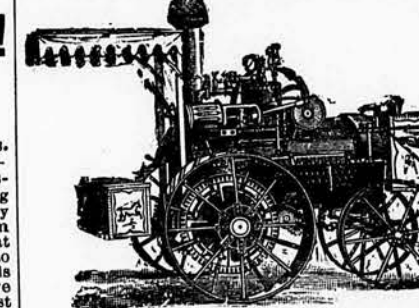
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