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Choice 13731, from the herd
awarded grand sweepstakes at World's Fair on boar
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Headed by Upright Wilkes 13246 and assisted by
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Shipped by express to eighteen States and
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We have one of the largest
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I have for sale

300 Head 3 and 4 year old Steers

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Choice young bulls for sale now. Visitors welcome.
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Have twenty-two
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HEREFORD
BULLS

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choice cows and
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choice Poland-
China male pigs
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200--Pedigreed Herefords--200

45 Young Bulls, 36 Heifers coming on.

250 High-Grade Cows,

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Breeder and shipper of pure-bred POLAND-
CHINAS. Best families. A choice lot of summer
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We are the largest breeders of pure-bred hogs in
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States. We are breed-
ing this year 200 brood
sows and have twelve
boars in our herd. At
this year we have the
great prize-winning
boar, Hadley Jr. 13314,
who took first prize as
boar and four of his get at the Nebraska State fair.

He is the sire of the two prize-winning pigs, King
Hadley and Samboline, that have won more prizes
than any two six-months-old pigs shown in 1895.
Longfellow 29785, who has the best Columbian record
of any Poland-China boar west of the Mississippi
river. J. H. Sanders Jr. 35089, Sir Chas. Corwin 33056,
L. S. Sensation 13316, Clay Dee 25877 (who took first
prize and sweepstakes at the Kansas State fair, 1895).
These boars are either individual prize-winners or
from sweepstakes boars. We bred the great sweep-
stakes sow, Faultless Queen Corwin 29738. We now
have on hand about 140 boars sired by the above.
Our prices are as low as small breeders. Why not
come to the fountain head and get boars to head
herds? We also breed English Berkshires on a
separate farm, four miles from Sunny Slope. One
of the largest breeders of pure-bred Hereford
cattle. H. L. LEIBFRIED, Manager.

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cattle. H. L. LEIBFRIED, Manager.

(Breeder's Directory continued on page 16.)

Agricultural Matters.

CORN—KAFFIR CORN—IRRIGATION.

EDITOR KANSAS FARMER:—I enclose draft—\$1.75—for subscription to the KANSAS FARMER and *Irrigation Age*, one year, as per your clubbing offer.

I note that the average corn crop of the State is put at twenty-six bushels to the acre by the Agricultural Department. I also know the opinion of the people in Dickinson county as to the reliability of the report. If the truth was told, not twenty bushels of cured shelled corn, fifty-six pounds to the bushel, has been produced on the area planted in Kansas this year. My observation on my trip to Kansas this fall convinces me that when it comes down to actual cured shelled grain, the crop is very much over-estimated all over the country. However, the crop is bringing next to nothing in Western markets, and in the dry belts of Kansas corn is being bought from the more fortunate neighbors at less than the labor cost of production. Still it would be much better if they had the grain of their own raising, the buyers think.

I had subsoiled, in Dickinson county, last spring, five acres of land, ordinary upland prairie, from fifteen to twenty inches deep, and had it planted about the first of May in Red Kaffir corn. It was drilled in, not listed, and had ordinary cultivation. It was cut about September 25, with McCormick binder, and produced an enormous quantity of fodder, and the seed was estimated by everybody at not less than twenty bushels of clean, solid grain to the acre. The seed will make a fairly good flour, and when ground is equal to as much wheat in flesh and muscle-producing qualities. Possibly a little inferior to corn in fattening qualities, but hogs fed on Kaffir corn or wheat are much less subject to disease than when fed altogether on corn. Corn and cholera are synonymous terms in the hog business, so far as my observation goes. The fodder of Red Kaffir corn is as sweet as sorghum and is one of the best rough feeds in the world. In this it differs from White Kaffir, rice corn, Jerusalem corn, millo maize and brown durra, which are non-saccharine, I am informed, and many of them inferior forage plants. Taking my own crop as a basis, I know that there was as much grain on my five acres of Red Kaffir this year as on any 100 acres of upland corn in the neighborhood. This was in the dry belt. Had there been enough rainfall to have matured a corn crop, the Red Kaffir would have done better also.

In 1888, I raised an average of about twenty bushels of clean White (the red is much better) Kaffir seed on upland, while my neighbors did not raise an average of five bushels of corn. I am convinced that had people generally, in Dickinson county, during the last ten years, been acquainted with this grain and had put it in early, after thoroughly preparing ground, either with or without subsoiling, and followed by thorough cultivation (drill preferably to lister) there would have been an abundant feed crop in the county every year, except probably 1894, which was the recurrence of the twenty-year drought. Eighteen hundred and thirty-four, 1854, 1874 and 1894, stand out like mile-stones of disaster to the farmer in Kansas and contiguous territory.

In regard to subsoiling, Geo. M. Boyle, of Bonaccord, Dickinson county, Kansas, informs me as follows: "In some parts of my corn field there are beds of a very rooty weed. Last spring I tried to destroy them by plowing very deep and gathering and burning the roots. Plowed these patches ten to twelve inches deep. After this I listed these patches, along with the rest of the field, in the ordinary way. It was all cultivated together, but where I did this plowing corn stalks stood twelve to eighteen inches higher than on adjoining land and had good ears, while the rest had little or no corn." I conclude that subsoiling and listing is the proper thing for corn, but for Red Kaffir, my experience is that ground should be subsoiled, or if that cannot

be done, then plowed in the ordinary way and drilled in, and that either way it is a sure crop with proper attention, nineteen times out of twenty.

I saw on a high prairie, south of Abilene, a corner of an orchard containing six or eight apple trees that had been irrigated for two years by a common windmill pump and planted to garden truck. As it was about the only producing garden, owing to the drought, in the country, the truck brought good prices and the apple trees were thrifty and vigorous. Outside the irrigation they were sickly and dying.

On nearly every farm in Kansas, from one to ten acres can be irrigated by windmills, and that much at least can be made to blossom as the rose, and a good, and even luxurious living be provided for every farmer as the product of the labor of himself and family at odd times. Where their means will admit of tiling, and sub-irrigation is practiced, a much larger area can be attended to in this way. Probably \$50 will tile an acre, where it is bought in car-load lots, and all through the winter the windmill will be filling the ground full of moisture against the hot droughty days of the summer. At those rare times when there is an excess of moisture the tiling system is easily changed into a drain to carry off the excess of water. So let us all "stand up for Kansas." I don't mean in the political sense of the words, but in their true significance, which is vastly different.

Dawson, Pa. JNO. H. WURTZ.

Potatoes—the Land, the Manure and the Culture.

EDITOR KANSAS FARMER:—Since publishing my yield of 437 bushels of Early Kansas potatoes on an acre, also the amount of manures used, I have received numerous letters asking me how close I planted, and a great many other questions. I have answered these questions before in the columns of the KANSAS FARMER, but every fall there are from 1,000 to 10,000 new subscribers, and it is from these new ones that my questions come. I have been twenty-five years experimenting and finding out just how to manage my soil in raising potatoes, and if what I write will be of any use to any one, I am amply repaid.

The average agricultural writer, editor, or hack writer, will invariably say that the best land for potatoes is a sandy loam. Against this I have nothing to say, but as I never had any sandy loam on my farm, all such advice was of no value. Again, they all tell us that fresh manure, freshly applied, is worse than useless—positively a hindrance; and this and many other things have kept me back many years, but I have had the courage to try for myself, and now advise my readers to experiment on their own soils and find out for themselves, as no one rule will apply to all kinds of soils and climates. My soil has not a single grain of sand, therefore is not a "sandy loam," but is an alluvial mold, twenty inches in depth, underlaid with a water-tight clay. This is far from the ideal potato soil, but by subsoiling with the new-process plow, I discovered that I gave the land the nature of "sandy loam," except there was no sand to warm it up. The subsoiling made it loose, mellow and friable, but it lacked the sand to add the warmth. I tried extremely heavy manuring with fresh strawy stable manures, and found out that the straw, in its heating and fomenting, in its holding the soil open, and other ways, gave my land the same nature that the sand does to "sandy loam." Many have written me that they cannot raise potatoes on their "sandy loam" until the second year after applying fresh strawy manures, and wonder how I can raise a crop on fresh-manured land, without the potatoes running all to tops and no bottoms.

It will be seen by this that one must find out his own soil, and not rush blindly to follow the plan laid down by any one man. It takes the subsoiling on my land, to make sure of enough moisture to counteract any evil effects from the strawy horse manure, and I would not advise any one to try heavy manuring in this climate, without sub-

soiling, providing the land is underlaid with hard clay. The Early Rose potato will run all to tops on my soil, under my system of forcing, but the Early Ohio, Early Kansas, Early Morn, Bliss Triumph and Carmen No. 1 will stand all the forcing that can be given them—providing they are planted thick enough. It may seem strange to some, but it is a fact, that the Early Ohio can be cut to one eye, planted one piece in a hill, with the hills only one foot apart and the rows only one foot apart, thus putting four rows where usually only one is put; but it takes from thirty to forty-five bushels of seed per acre and all cultivation must cease with the weeder. The Early Kansas and Carmen No. 1 must be cut to one eye, one eye in a hill, hills fourteen inches apart in the rows and the rows twenty-eight inches apart, and it takes sixteen bushels of seed per acre, and all cultivation must be not over one inch in depth, and very frequent, also. This seems like a waste of seed, but as one acre can be made to produce as much as three common ones, it is really a saving.

I use a weeder of my own make, quite similar to the Breed, and do all cultivating with the Planet Jr. twelve-tooth cultivator and pulverizer, and hereafter I shall always sow German millet at the time I lay the crop by, which is about July 1 here. The millet will prove a help instead of a hindrance, as it shades the crop after the vines die and keeps our wet, hot Septembers from spoiling and sprouting the potatoes, as we cannot dig here until October or November, on account of lack of proper storage rooms in so hot a climate.

I have discovered that heavy manuring with stable manures does not cause or assist scab; on the contrary, the natural, quick growth prevents it.

One more point: Eastern writers always harp on throwing away the seed end of the potato. It is my opinion that the seed end is the most valuable of all to plant. Did you ever dig potatoes that had sprouted? If so, wasn't the seed end the one that had sprouted? Have you ever noticed potatoes with one large sprout, in the bin? If so, wasn't it the seed end sprout? Yes it was, and this proves that this eye is the most vigorous of all and will be the first to come up and the one that produces the large stalk that always has the large tubers and is the identical hill that Eastern writers advise us to stake for seed.

Another thing: There is no danger of twelve hours' soaking of seed in corrosive sublimate solution hurting them. On the contrary, such seed will come up quicker than seed not soaked or seed soaked the regulation twenty minutes. CLARENCE J. NORTON. Morantown, Kas.

Poison the Gophers.

EDITOR KANSAS FARMER:—Replying to your correspondent's inquiry as to how to destroy gophers, I have had success by splitting small potatoes and spreading strychnine thinly over the cut surfaces, fastening them in their original positions with a wooden pin, and dropping them into the gophers' runs. Parsnips are even better than potatoes for this purpose, and carrots are well liked by the gophers. Atchison, Kas. GEO. W. GLICK.

Corn Exhibit at Institutes.

EDITOR KANSAS FARMER:—In a recent number of the FARMER, I see a communication from our esteemed fellow citizen, Bradford Miller, which is full of valuable and interesting suggestions in regard to exhibits of corn at the farmers' institutes, and I most sincerely hope the parties having our county institutes in charge will lose no time in adopting Friend Miller's ideas. It would furnish a new theme for discussion and create a diversion from the general routine, and could not fail to be a great and lasting benefit to the community in securing varieties for seed adapted to the soil and climate and at half the cost of expensive new and untried varieties from the seedsmen, as well as a benefit to the neighbor who raised the favored variety. It would also inculcate a spirit of friendly rivalry as to whose variety was best all

Well Satisfied with Ayer's Hair Vigor.

"Nearly forty years ago, after some weeks of sickness, my hair turned gray. I began using Ayer's Hair Vigor, and was so well satisfied with the results that I have never tried any other kind of dressing. It requires only an occasional application of



AYER'S

Hair Vigor to keep my hair of good color, to remove dandruff, to heal itching humors, and prevent the hair from falling out. I never hesitate to recommend Ayer's medicines to my friends."—Mrs. H. M. HAIGHT, Avoca, Nebr.

AYER'S Hair Vigor

Prepared by Dr. J. C. Ayer & Co., Lowell, Mass.

Take Ayer's Sarsaparilla for the Complexion.

round corn, and this would certainly have a tendency to promote better care and culture, and who can estimate the benefit to the community this alone would be? W. T. JACKSON. Topeka, Kas.

\$100 Reward \$100.

The readers of this paper will be pleased to learn that there is at least one dreaded disease that science has been able to cure in all its stages, and that is catarrh. Hall's Catarrh Cure is the only positive cure known to the medical fraternity. Catarrh being a constitutional disease, requires a constitutional treatment. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system, thereby destroying the foundation of the disease, and giving the patient strength by building up the constitution and assisting nature in doing its work. The proprietors have so much faith in its curative powers, that they offer one hundred dollars for any case that it fails to cure. Send for list of testimonials. Address, F. J. CHENEY & CO., Toledo, O. Sold by Druggists, 75 cents.

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The Stock Interest.

TUBERCULOSIS—ITS EXTERMINATION.

An important and highly-valued bulletin has just been issued from the veterinary department of the Iowa Agricultural college, parts of which are devoted to consideration of the relation of meat and milk supply to public health, and to the question of securing healthy herds and keeping them free from disease. On these points Profs. Stalker and Niles, the authors of the bulletin, say:

"That the mortality in the human family from tuberculosis exceeds the death roll from all other infectious diseases put together is a generally admitted fact. Statistics place the death rate from this cause as high as 14 per cent. At some of our Indian agencies, where the habit of eating uncooked meat is a general one, the mortality statistics show that 50 per cent. of the deaths is due to tuberculosis. It is a very difficult matter to determine approximately how much of the mortality from human consumption is to be attributed directly to infection from the lower animals. The causes in most of the cases are so hidden in obscurity that a definite explanation is impossible. But there is abundance of positive proof and still more collateral evidence to show that the food supply derived from the animal kingdom is no small factor in the distribution of the disease.

"There are few experimenters, who have been close observers of these phenomena, who cannot cite cases that point at least in the direction of these conclusions.

"One case came under our observation, where five young people between the ages of 20 and 30 years died of consumption from one family during a period of two years. Not a trace of the disease had ever been known in the family of either the father or mother of the victims. On the farm where the deaths occurred we found seventeen cases of tuberculosis in the herd of cattle, and others had died before the investigation was made.

"Another bit of history in connection with a diseased herd that was under test, is worthy of mention. A mother and child died; the mother from undoubted consumption; the child from intestinal trouble highly suggestive of the same disease. The cow that had supplied milk to the mother and child was tested and found to be tuberculous. Post-mortem examination of the cow revealed a badly tuberculous condition of the udder. Similar observations on the part of other station workers and practicing physicians have been made so frequently that the conclusion is unavoidable that to some extent to our meat supply, and in a much larger way to our milk supply can be traced many of the cases of tuberculosis in the human family.

"How can healthy herds be secured, and how can they be kept free from disease? This is the practical question toward which all the others tend. It is of little consequence to know that disease exists unless that knowledge can be made to aid us in averting the evils we have found. The means by which total extermination of the disease can be accomplished, do not seem to be in sight. So long as there remain cases of consumption in the human family, there remains the possibility of occasional reinfection of bovines. But the probabilities of infection from this source are remote, and should not be taken as arguments against any restrictive measures that might be adopted.

"While absolute extermination of the disease at once may not be practical, we believe it to be entirely feasible to so far restrict its dangers, as to render them of slight consequence. The State has already, with small expense, eradicated the disease in a considerable number of dairy herds. And what is of more value to the public at large than freeing these herds from disease, it has demonstrated the possibility and the practicability of the plan, and has done much to educate the people as to the sources of danger.

The result is that many owners of herds have voluntarily, and at their own expense, had the tuberculin test applied, and the diseased animals destroyed. The work the State has done, is in this way being supplemented; and the practice of testing dairy cows is likely to have a very large increase in the future, without the aid of compulsory measures. Once the herd is free from disease, it can readily be kept in this condition by exercising due precaution in the introduction of fresh stock. Dairy men who have had unfortunate experience with the disease, have adopted the practice of admitting none but tested [with tuberculin] cows to their purified herds. This practice, if uniformly adopted would soon render the dairy herds of Iowa free from tuberculosis. If in addition to these precautions, similar vigilance were exercised over the introduction of breeding stock to the herds, the chief sources of infection could thus be shut off. If restrictive measures of this kind were applied to these two classes of cattle, practically all the cases of tuberculosis in the State would soon be found, and its ravages reduced to the minimum. The measures adopted in a few score of dairy herds in the State, if applied to the remainder, would go very far toward eradication. It is possible to reach most important practical results, without the expenditure of large sums of money or the sacrifice of important interests.

"All animals suffering from the disease in any of its stages should be at once removed from contact with other cattle. It is our judgment that any plan which contemplates keeping tuberculous animals on the farm, and attempting to avert danger by segregation and other like precautionary methods, will defeat its own ends. The less the number of possible sources of infection in the country, the more successful will be the efforts at eradication. Buildings where tuberculous animals have been confined are to be regarded as infected, and no healthy animal should be assigned quarters in such enclosure till thoroughly disinfected.

"It is true a single test may not in every instance free the entire herd. After-infection may take place. It would be wise in those cases where a number of badly-affected animals have existed to take the precaution of applying additional tests some months after the first. All this involves care, the expenditure of a certain amount of money, and the occasional loss of an animal. But the animal already suffering from an infectious and highly fatal disease cannot be considered to possess any high value. The inconvenience and expense attending such precautions are small in comparison with the loss and risk involved in allowing the disease to run its natural course in the herd and the sale of dangerous products for human consumption."

Progress of Steer-Feeding Experiment.

The steer-feeding experiment planned for this winter has now been running seven weeks. Although this is too short a period on which to base any conclusions as to the final outcome, it may, nevertheless, be of interest to farmers and feeders in the West to see how the several lots compare after forty days feeding. The steers are three-year-old Short-horns, raised on farms here in the neighborhood of Manhattan, and bought by the station early in October. All were dehorned as yearlings. There are twenty in number, divided into four lots, numbered from I. to IV. Lots I., II. and III. are tied up in the barn, and lot IV. is fed in the yard, with a shed for shelter. The experiment is a repetition of the one carried out in the winter of 1891-2. It is a comparison of the balanced ration, corn meal and ear corn, and also a comparison of stabling and outdoor feeding. The five steers composing lot I. are fed on a ration of the following mixture: Fifteen parts of corn meal, four parts bran, four parts oil meal, and for rough fodder, alfalfa and chopped corn stalks. Lot II. is fed on corn meal, and for roughness, chopped corn stalks. Lot III. is fed on ear corn and chopped corn stalks. As stated, these three lots are indoors. Lot IV.

is fed on ear corn and chopped corn stalks outdoors. The fifteen indoor steers are fed individually, the feed for each being weighed for each feeding, and the waste, if any, is weighed back and deducted from the amount fed. In like manner, the water each steer drinks is weighed. A record table hangs in front of each lot, on which the weights are entered at once. The outdoor lot cannot be fed individually, as they all run together. The following brief table shows the situation at the close of the seventh week:

Average consumption of food per head.	Food per pound of gain	
	Lbs.	Lbs.
Corn stalks.....	133	9.04
Alfalfa.....	209	2.57
Grain	847	1.07
Average daily gain.....	Lbs.	Lbs.
	3.49	2.71
Average gain.....	Lbs.	Lbs.
	171	133
Average weight per head.	December 11.....	Lbs.
	Lbs.	Lbs.
	October 23.....	Lbs.
	Lbs.	Lbs.
Balanced ration.....	I. Corn meal.....	1,129
	II. Corn meal.....	1,129
	III. Corn meal.....	1,129
	IV. Ear corn, outdoors.....	1,129

It will be noted that the balanced ration lot made a daily average gain per head of 3.49 pounds, and they made this gain on a consumption of 7.07 pounds food for each pound of gain. Lot II., fed on corn meal, gained 2.71 pounds per day, and made a pound of gain on a total consumption of 9.04 pounds of food. Lot III. gained 2.04 pounds per day on 12.7 pounds food per pound of gain. Lot IV. gained 1.79 pounds per day on 14.4 pounds food per pound of gain. The result agrees, so far, very closely with the result obtained by the same method of treatment in the winter of 1891-2. The indoor gains this year are better than they were in the beginning of the feeding period then. This is due to the fact that the present lot of steers are gentle, and became accustomed to the stable in a very short time. In the former experiment, the steers had been raised on a large ranch, and had never been handled, and they consequently fretted and worried for a long time before they quieted down to business.

The experiment will be continued until they are in profitable condition for market, when each lot will be sold on its merits.—Prof. C. C. Georgeson, in *Industrialist*.

"Corn Stalk Disease."

EDITOR KANSAS FARMER:—There is much being published this winter in the agricultural press, in regard to the so-called corn stalk disease among cattle, for the reason that it is unusually prevalent this season. I first heard of this disease and saw many cases of it in the winter of 1893-94, and formed an opinion then as to the cause of it, which has been firmly established in my mind by my observation and experience during a period of eleven years. I have read published letters by the score, describing the disease and advancing theories as to the cause of it, and it is a matter of peculiar interest to me that in none of these letters or reports that have come to my notice, of scientific investigation and experiment, has the cause been assigned to it which I consider the true one—a very simple cause and the remedy is quite as simple and easily applied.

It may be noticed that the prevalence of this disease always follows a heavy yield of corn, and that the disease always appears soon after the stock has been turned into the field; that horses running in the same fields are seldom if ever afflicted with it; that after the stalks have been pastured a certain length of time the trouble disappears. Now, I account for these facts by the following circumstances:

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First, that a heavy yield of corn is generally preceded by heavy rains during the period when the ear is being formed, in the season of our hottest weather; then the water makes a lodgment under the husks of many of the ears, which causes them to rot. These rotten ears are nearly always left by the corn-huskers in the field, unless they are carefully gathered out, as many are doing in this locality as a precaution against the "corn stalk disease." Second, that when stock is first turned into the field the rotten corn is plentiful, and the cattle gorge themselves with it and soon become sick. After the field has been pastured long enough to clear it of the rotten stuff, there are no more diseased cattle, as the cause no longer exists. Third, that horses are not afflicted with the disease, for the reason that they will not eat the rotten corn, while cattle will eat great quantities of it whenever they can get it.


I have the rotten corn carefully gathered from my fields and used for fuel. Have had this disease among my cattle twice only. Three years ago had some of this rotten corn hauled to me in corn which I had bought, and I thought I would feed some of the best of it to a couple of cows, which were not in the fields while I was feeding it, and after I had fed it for about a week, one of the cows began to slubber and tip up on her nose. Of course I quit feeding it. This winter I put a man to husking corn and neglected to instruct him about the rotten corn until he had several acres husked. Thinking there would not be enough of it to hurt the cattle, I turned them in, and three of the cows sickened, two of them losing their calves, notwithstanding the fact that they had an abundant supply of water and salt to go to at will, and also a piece of meadow with a fine growth of timothy and clover. I kept the sick cows out of the field for a time and fed them oats and hay, and they recovered all right; then turned them back into the stalks with the others and have had no more trouble.

If the scientific experimenters will take a number of cattle and feed them plentifully of this rotten corn, I will guarantee the development of the "corn stalk disease" in its perfect form. I would mention another fact, that cattle never take this disease from eating fodder, because they could not get enough of it out of the amount of fodder that would be fed to them to produce the sickness. J. M. SMITH, Globe, Kas.

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Irrigation.

IRRIGATION WITH STORM WATERS.

By Hon. Geo. M. Munger, of Eureka, Kas., read before the annual meeting of Kansas State Horticultural Society.

Irrigation with storm waters may be fairly interpreted in this instance to read, "Irrigation in Eastern Kansas." Apathy and doubt regarding the benefits of irrigation exist in this portion of the State, while in western Kansas a vigorous, active development is well under headway. About one-third of the State, and that the eastern third, is more or less irrigable with impounded storm waters, and in no other way is it possible, leaving out of consideration the comparatively limited areas of river and creek bottoms. The geological formation and topography of this part of the State are eminently favorable to this plan of getting and using the water. The land system and ownership are against it. Lands were originally surveyed, platted and sold without any reference to this important feature of a successful agriculture, and there has been no material change. The system takes no cognizance of topography, but solely the ease of dividing into convenient rectangular tracts. It is probable that no more awkward or ungainly method of division could have been adopted. It commonly occurs that an owner having a suitable location for a reservoir for accumulating and holding water will find the land most easily irrigated from his reservoir owned by a neighbor. The resultant inconvenience is evident. The cheapest and best way to distribute water for irrigation is by gravity, and in those cases where the reservoir site is higher, and lands to be irrigated lower, and both owned by the same party, the problems are not difficult of solution. On the other hand, where the water will be below the irrigable lands, the lifting of it becomes a problem of first importance.

This irrigation may properly be divided into three prominent parts. The first, the means of reserving the run-off or waste waters; the second, the methods of getting them onto the land, and the third, the distribution. With a clay subsoil, as obtains in nearly all of eastern Kansas, there are but few difficulties to be encountered in the making of earthen dams that will not only hold water, but that will stand for indefinite periods, provided the dams are properly constructed. Too great importance cannot be attached to the doing of the preliminary work thoroughly. Especially is this true where considerable bodies of water are to be retained.

A reservoir should be planned with reference to its watershed to as great an extent as possible. In nearly all cases it will be found that the watershed is too large rather than too small. The difficulties increase rapidly in cases where there is too great a shed for the purpose, owing to the necessity for providing suitable spillways for the surplus water in periods of excessive rainfall. A watershed of about ten times the area of the proposed reservoir is about the ideal proportion, while a smaller would be preferable to a larger.

In the construction of an earthen dam, the first and important work is the clearing of the base of the sod and the surface soil, getting down to the clay subsoil before beginning the superstructure. The next work to be done is of great importance to dams that are to retain water to a depth of ten feet or over, while in smaller works it is not so imperative. This is the construction of permanent drains in the base of the dam, for the purpose of carrying off the water that inevitably seeps through newly-moved earth. These drains should be placed about the middle of the dam, running lengthwise of it, and if the dam is to be a large one, two or more of them running parallel will be desirable. The effect of these drains is to keep the superstructure dry by allowing the seepage to pass out as rapidly as it comes in, and thus relieve the work of the danger of being saturated, in which condition its stability will be greatly endangered. An important item in

the selection of a site for the dam is that there be no rock encountered in the foundation, for so surely as it is, just so surely will there be a leakage between the rock and the earth. A leakage will inevitably cause regular channels, while a seepage will not. In case of finding a strata of rock in the foundation it had better be abandoned. The proper foundation for a dam is of even more importance than that of a building. The next step will be the opening up of the borrow pits, and these should be treated the same as the base of the dam—that is, all the surface soil removed. This surface soil removal is not all waste, as the earth can be successfully used on the rear of the dam, while it is undesirable on the face. The most impervious earth will be the clay subsoil, and the least, the surface soil. The ideal earth for this construction is clay with a moderate proportion of sand or fine gravel.

In building the superstructure it is better to put the earth on in thin layers, that it may be well packed by the tramping of the teams and tools. About one foot, and not more than two, will be the best for results. The slopes are most easily built at such angles as the earth will readily stand, and the action of the elements may be relied on to produce the proper slopes on both face and rear of the dam. The top of a dam of any considerable size should be left wide enough and to spare to allow of the use of teams and tools for the repair of the inevitable settlements which will always be the greatest at the heaviest parts of the work. A width of ten feet on the top of a dam is considered absolutely necessary, and twenty feet is better. In case of the narrower width on top, team work will be necessary to effect temporary replacements of settlements, while if the greater width is allowed, replacements can be made with earth already on hand and under conditions that will not permit of using teams; that is to say, it is an extra safeguard.

Our State law has taken cognizance of this matter and attempts to regulate the width of dams of given sizes, but the laws of nature are superior and will more than meet the requirements of the case. Large dams will require several years, or especial and expensive treatment to attain their permanent form and condition. Earthen dams will not allow of water passing over them, and it is dangerous to attempt to provide spillways through them. The best and cheapest plan is to build the dam enough above flood-line to insure safety, and allow the waste water to spill around the ends of the dam, and if possible over unbroken sod. For dams that are to retain water to a depth of ten or fifteen feet, a margin of three feet above flood-line will be safe, and for those above that not less than five feet is allowable. One of the most vital points for safety is the adequacy of the spillway.

At the final completion of the dam, a facing of the water side with rip-rap will be an economy in preventing the further loss of earth by wave action. While this is not always absolutely necessary it is very desirable. It is considered very objectionable to allow any piping through the body of the dam, and if done will be the weakest spot. To take the water out by means of a syphon is an easy matter and better—that is, supposing the water is to be used below the dam.

It probably will not be desirable to enter into any detailed discussion of the various methods of lifting water, main but there are three motive powers—wind, steam and gasoline. Of these the wind is by odds the cheaper, the steam the most reliable, the gasoline yet on trial. The experience of users of gasoline this year has not been such as to encourage them greatly in its use, owing to the doubling of its price about the time its use began to be considerable. Wherever and whenever the centrifugal form of pump can be made to do the work it is likely to be the most satisfactory of all known forms. There is no motive power known so cheap as the Kansas winds, and while there are many forms and styles of mills, the perfect one for work has not yet been perfected, or at least recognized. A crude but exceedingly effective mill was

recently exhibited at Garden City, and the principles and methods are likely to be developed. It hardly seems probable that large areas under single managements will soon be irrigated by the use of wind power, yet it is not too much to say that it is easily possible. More extended studies of the possibilities are well worth the time. Simplicity, cheapness of construction, large capacity, a construction that will permit of home repairs, and a reservoir system to make a balance, are all items to be carefully considered.

Nowhere in eastern Kansas is it likely there are to be found any insuperable obstacles to distribution. Water will readily run down hill when given the opportunity, and in most cases is given to running a bit too fast. This difficulty in distribution on lands with stiff slopes is overcome by the use of artificial drops or falls, giving the spaces between the proper grade, which is usually from half an inch to an inch fall to the hundred feet, but no exact grade can be given without fully understanding the character of the soil. An inch fall to the hundred feet makes a pretty stiff current, too stiff for most lands. There are two general systems of distribution of water on land, one by flooding, the other by means of furrows. Both have their respective advantages in their proper places, and both will be used on different crops as may be best.

Whoever contemplates the use of water to irrigate his land will be compelled by force of circumstances to enter into the study of details much more fully than is possible within the limits of this paper. These matters are all treated of extensively and comprehensively by the various publications of the national government, and these are obtained from Washington easily and without expense.

That we may know something of the class of work under consideration it is well to make some investigation as to what has already been accomplished by others in this line. In the twelfth annual report of the United States Geological Survey, is contained a very full report on "Irrigation in India," by Herbert Wilson, C. E., who was sent there for this purpose by the government. From page 536 to 553 of that report is a vast amount of information on the subject of this paper. In that report Mr. Wilson defines the difference between reservoirs and tanks to be the difference in the construction of the dams. A dam made of masonry creates what is called a reservoir, while a dam made of earth makes what is called a tank. Since there is little probability of masonry works being soon used on this class of works here, we will continue to call them all reservoirs. Mr. Wilson makes the statement that "in Madras Presidency, including Mysore, there is said to be about 75,000 tanks." Also, "in Mysore, early in 1866, Major Sankey reported that the percentage of the whole area of Mysore under the tank system was 59.7, while the total area of the state is 27,300 square miles." Also, "in the Madras Presidency mainly, exclusive of Mysore, there were reported in 1882 to be 53,000 tanks, having about 30,000 miles of embankments and 300,000 separate masonry works, weirs, escapes, etc., yielding a revenue of \$7,500,000 per annum, and having invested in them a capital of \$75,000,000." With these statements before you from so excellent an authority, it will easily be seen that the science of irrigation by the accumulation and use of impounded storm waters is nothing new. This system has been in use in India, as stated in this same report, for "hundreds of years." When the statement is considered that the system in Madras has paid annual revenues of 10 per cent. on capital invested, there need be no further question as to whether or not it paid.

That it may be seen what has been

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done and what expense incurred in lifting water for irrigation purposes, reference is had to a French work, "Irrigation in Egypt," by J. Barois, Principal Secretary to the Ministry of Public Works in Egypt, and translated by Major A. M. Miller, United States army. Many different styles and methods of lifting water are described, many of them involving human power, while wind power seems nowhere to be used for the purpose. The lifts are usually quite moderate, varying from about six feet to about thirty feet. Of the steam works, some are of the most massive and powerful of any lifting machines in the world; while still larger numbers are of moderate capacity. Barois states that "there were in 1882 in the whole of lower Egypt, 2,500 machines, representing a total of 25,000 horse-power, among which 360 machines have a total of 6,000 horse-power." "In upper Egypt there are in all 150 machines, representing 4,700 horse-power, among which there are fifty-six permanent machines with a total of 3,600 horse-power."

The province of Behera, which is the most westerly of those situated in the delta of the Nile, is irrigated by two principal canals, both of which are supplied with water that is elevated by steam power, the two plants doing the work being located, the one at Atfeh, the other at Katatbeh, and in 1884 these two plants delivered during the season of irrigation 4,000,000 cubic meters per day of twenty-four hours, this being about equal to 3,220 acre feet—that is, the amount of water which would cover 3,220 acres to the depth of one foot. This will give an idea of the enormous quantity of water required and is sufficient to demonstrate the fact that lifting water in large quantities for irrigation is not a new idea. The steam plants that are used for this work consist of batteries of boilers, ten in one case and eleven in the other, each boiler having a heating surface of 190 square meters. It is to be considered, also, that this work is all done for agricultural purposes and not for especial high-priced products, and that the products, sugar, wheat, cotton, etc., are such as come in direct competition with the products of the world. The work is done by a company under a contract and the importance of it will be understood when it is stated that the forfeiture for stoppages is placed in the contract at 26,000 francs per day.

(Concluded next week.)

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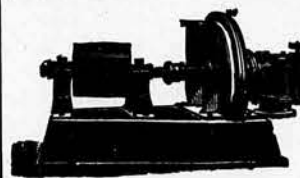
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FARMERS' INSTITUTE, OAK GRANGE HALL, SHAWNEE COUNTY.

EDITOR KANSAS FARMER:—The Farmers' Institute of Mission Township convened Thursday, December 19, the Wednesday night session being postponed on account of the threatening aspect of the weather. Notwithstanding the unpleasant combination of sleet, mud and snow, a fair audience was present, and a majority of those whose names appeared on the program responded. The subjects were wisely chosen and covered a desired range of thought and experience. Papers and lectures were exceptionally good.

Mr. Warner, of Topeka, presented, in a lengthy and interesting paper, the merits of "Shredded Corn Fodder." A number of farmers in this locality having tested this, their experience was called for. Mr. Zinn had 320 shocks of corn shredded and housed. Stock ate it with relish and seemed to thrive better than on other rough feed. At no distant day every farmer would use the shredder. Ed. Buckman used shredded fodder. Stock ate readily, but thought it an expensive feed. Major Sims understood that the corn must be cut before matured or fodder of no value. If we adopt shredding must plant for that. Other experiences were given, and estimates of the cost, which varied from \$1.50 to \$2 per ton. Mark Holloway thought stock did not eat it as readily as cane. Discussion was closed by the President with the question: "Will it pay to plant thick for fodder or thin for corn?"

John Macdonald, editor of the *Western School Journal*, prefaced his spicy lecture with the assertion that "the world is being talked to death." The subject, "From Country to City," was divided into "heads," though declaring in an aside that he did not intend to follow them. It was the decree of Almighty that some should be lawyers, doctors, artists, etc., and rightly seek the city. The restless ones, those who want to drift, the cold, cruel environments of miserable homes, all tend to add to the dwellers of the city. Complimented this as an ideal community. Pleasant homes, music, a fine library, etc. Hoped to see manual training in every school.

The afternoon session was opened by Reuben Townes, of Valencia, who read a fine paper on "The Man Who Gets There." Mr. Townes can speak from the vantage ground of one who has reached the "serene heights of success." With a fine farm and the inspiration of a pleasant home, he is well prepared to throw out helps to the man who is striving to get there.

Mrs. Kedzie, professor of domestic economy at the State Agricultural college, gave one of her characteristic talks, practical, encouraging, inspiring. Mrs. Kedzie reviewed the work, wrought out from the idea originated by Mary Lyon, down to the present time. While on a recent visit to Europe, Mrs. Kedzie visited the training schools in England, the idea of which was taken up forty years ago and which now receive royal support. She found the idea had grown more rapidly there than here. Six graduates from our college are teaching in other States, which shows that the good work is going on. Nothing can make the home stronger than the woman well versed in household economy. No wretched failures in the preparation of foods, for she knows and looks out for conditions. No failures socially, as she must learn to entertain gracefully, as a necessary part in the art of home-making. Thus our girls are sent out from our colleges prepared to take their places as home-makers and home-keepers. It is impossible to convey but a slight idea of the important points touched upon in this lecture, though those whose pleasure it was to listen will long carry it in their hearts.

Hon. F. D. Coburn, of the State Board of Agriculture, gave a very interesting paper on "Dehorning," wherein he ably advocated its necessity from a humane standpoint. Strange as it may appear, Mr. Coburn prefaced his remarks with a quotation from Scripture, giving authority to his theory. The arguments set forth in support were so convincing, that no

one ventured a doubt as their correctness.

Prof. Hitchcock, of the Agricultural college, gave an illustrated lecture on "How Plants Obtain Their Food," which was one of the most interesting things of the session. Illustrated root-hairs, organs by which plants take up water, which evaporates, leaving certain minerals, which it appropriates. Plants of green color are busy workers, preparing food, by some chemical process, from crude material. Possessing lungs or breathing pores. Also showing that there are drones, even in the plant world. Fungi-parasites, getting their food from other plants. Mistletoe represented a combination of the two orders. Many questions were asked and pleasantly answered. But a day would not have exhausted the interest manifested in this subject.

This was followed by an equally interesting lecture by Prof. Hilton, of Topeka, on "Soil Cultivation." The Professor illustrated the different soils, spaces in soil and the capillarity of each. The question of subsoiling was touched upon, but owing to the lateness of the hour was not discussed.

Professor Cowgill, of the KANSAS FARMER, who was on the program for a paper on "Moisture and Crops," was present, but kindly gave his time to others. Mr. Cowgill complimented the people of this vicinity for their comfortable hall, library and their progressiveness.

At the evening session Mr. Zinn read a paper on "Alfalfa-Growing in Shawnee County." This paper showed a thorough knowledge of the best method of sowing, protecting young plants, cutting, etc., also its fat-forming qualities. The discussion which followed brought out some amusing experiences. But few had tried it, however, and the failures were attributed to ignorance of the plant's requirements.

The paper on "Farmers' Boys," by E. M. Cockrell, was a splendid production, and the boy who was not present missed some very practical advice. Mr. Cockrell said that he had always felt sorry for Adam, the only one who had ever missed the fun of boyhood. The old boys and girls should teach the young boys and girls all the good of the old and the best of the new. There is no apology for being a worthless member of society. Teach boys self-reliance, the truth; give him appreciation, join in his sports, make home so pleasant that the allurements of city life will fail to charm. You can better afford books, music, than to see him go wrong. Discussed by Mr. Stout and others.

Mr. Heil followed with a spirited talk on "Progressive Dairying." A few years ago Kansas was not in it. This year the dairy products realized more profit than the wheat. Methods had improved. Cows were kept better and butter had therefore improved in quality. Milk is now sterilized and butter keeps better. Question: "Is butter made from sterilized milk as good as with the old method?" No. But a bacteria is introduced to supply the desired flavor. A vigorous discussion followed, but those who did not understand "milk culture" were not in it.

Mr. Stout presented a very able paper on "Does the Entering of Women Into the Professions Encourage Trampism?" The subject was cleverly treated. Every point was skillfully met, and the right of woman to a place in the army of workers was ably championed. No danger of woman becoming unsexed while God watches her.

Before adjourning an experience meeting was held, and the merits of the various kinds of fodder thoroughly discussed. Cane and Kaffir corn had its earnest supporters and perhaps a majority.

Committee on nominations reported as follows: Elbridge Higgins, President; Ed. Buckman, Vice President; Mrs. John Sims, Secretary. Suggested December, 1896, for the next meeting.

The sessions were enlivened with music, vocal and instrumental. Mrs. Fred Brown played several beautiful selections on the guitar.

The papers read were mostly secured for publication in the KANSAS FARMER.

KITTIE J. MCCracken.

DR. HARTMAN SAYS

Catarrh is the Scourge of the Nineteenth Century.

Have you catarrh? Maybe you have not; but do you know that a person may have catarrh of the head, catarrh of the throat, catarrh of the lungs, catarrh of the stomach, catarrh of the bowels, catarrh of the kidneys, catarrh of the bladder, and also the other pelvic organs? Are any of these organs affected in your case? If so, the probability is that you have chronic catarrh. So many people think that catarrh is confined to the head. This is not true. Catarrh may affect any organ of the body. Thousands of people who have been sick a long time have catarrh, but do not know it. They have doctored for every imaginable disease but catarrh, but find no cure. They have never thought that what they have been calling dyspepsia, or liver complaint, or kidney disease, or female weakness, is catarrh of these organs. If they did know that this was the case they would get Peruna and cure themselves. Peruna cures catarrh of any locality. If catarrh is in the head Peruna cures it; if in the stomach Peruna cures it; likewise of the liver or kidneys or any other organ of the human body.

Everybody can get a free copy of a book on catarrh and other diseases of winter by writing at once to the Peruna Drug Manufacturing Co., of Columbus, O.—sixty-four pages, instructively illustrated.

Eggs for Scours.

A correspondent writes as follows: "We have tried pretty nearly everything in times past as a cure for scours in calves, which, try as we will, are sometimes unavoidable where it is not possible for one person to do the feeding every time. Even one over-feeding will sometimes cause the mischief to start. Last spring raw eggs were fed, three or four times a day, to a calf which everything else had failed to relieve. She soon gained strength. She could not get up alone at first, and the disease was checked. To-day the calf is as strong as any. Very little milk is fed while giving the eggs."

Kansas Improved Stock Breeders.

Program of the sixth annual session of the Kansas Improved Stock Breeders' Association, to be held at the National hotel, Topeka, January 7 and 8, 1896, at 2 p. m.: Reports of officers; reports of special committees; "The Comparative Value of Feeding Stuffs," by Prof. C. C. Georgeson, of the Kansas State Agricultural college, Manhattan; "The Type of Horses to Breed for Present Markets"—draft breeds, F. H. Avery, Wakefield, coachers, Hon. O. L. Thistler, Chapman; "The Standard-bred Horse for all Purposes," C. E. Westbrook, Peabody; "Profits in Dairying," A. E. Jones, Topeka; "Holstein-Friesians as a Dairy Breed," M. S. Babcock, Nortonville, and C. F. Stone, Peabody; "Good Roads," Hon. G. W. Glick, Atchison; "Give the Mule a Chance," D. A. Williams, Silver Lake, and J. C. Stone, Leavenworth; "Farm Flocks of Sheep for Wool and Mutton," H. M. Kirkpatrick, Hoge, and E. D. King, Burlington; "The Beef Breeds"—Herefords of the past, J. Gordon Gibb, Lawrence, Herefords of the present, C. S. Cross, Emporia; "Prospects and Outlook for Pure-bred Short-horns," Col. W. A. Harris, Linwood; general discussion; "Veterinary," U. B. McCurdy, V. S., Topeka; "Tame Grasses—Pastures," J. W. Babbitt, Hiawatha; "The Relation of the Breeder to the General Farmer," G. G. McConnell, Menoken; "Needed Legislation, State fair, etc.," Hon. W. B. Sutton, Russell.

It is proposed to hold a banquet on Tuesday night, January 7, each one present paying for his plate. This banquet session is to be a general experience meeting and social session, and every one present is expected to contribute a thought or idea for the good of the association or the entertainment of the evening.

The regular program as outlined in the above named topics is subject to discussion, and every member is expected to come prepared to discuss one or more of the subjects under consideration.

In the above program it will be observed that a combination has been made with the Kansas Swine Breeders' Association to furnish all the matter pertaining to the swine industry and

Potatoes,

Tomatoes, Melons, Cabbage, Turnips, Lettuce, Peas, Beets, Onions, and all Vegetables, remove large quantities of Potash from the soil. Supply

Potash

in liberal quantities by the use of fertilizers containing not less than 10% actual Potash. Better and more profitable yields are sure to follow.

Our pamphlets are not advertising circulars booming special fertilizers, but are practical works, containing latest researches on the subject of fertilization, and are really helpful to farmers. They are sent free for the asking.

GERMAN KALI WORKS,
93 Nassau St., New York.

Dr. Scott's Electric Belt



for men and women, quickly cures Rheumatism, Paralysis, Liver and Kidney trouble, Nervous and General Debility, Gout, Indigestion, Pains in the Head, Hips, Back or Limbs, and kindred complaints. If you cannot get our belt from your druggist, read the following plan, which we have adopted to introduce them quickly in your neighborhood.

Given Away

Dr. Scott's Electric Insoles.

For a limited period we will make to every person who sends us \$3 for one of our Standard Belts, a present of a pair of Dr. Scott's Celebrated Electric Insoles (Price 50c.), which will positively keep the feet warm and dry. Send for our circular giving information concerning all our goods. This offer is made for a short time only; do not delay; send at once; you may never have the chance again. Agents wanted.

PALL MALL ELECTRIC ASSOCIATION,
Room 10, 844 Broadway, New York.

their topics, and discussion will precede and not conflict with this program, but the two will furnish the best exercises ever held in the State in behalf of improved stock.

Every old member of the association, as well as every Kansas breeder, is cordially invited to be present. Reduced rates on all the railroads for the entire week have been secured, as the annual meeting of the State Board of Agriculture and Kansas Poultry Show is held the same week. The meeting this year is of the greatest importance, as several special matters are to be considered that will interest every stockman and farmer in the State. In view of the proposed banquet, it is important that all who expect to be present should notify the Secretary at once.

H. A. HEATH, Secretary,
Topeka, Kas.

T. A. HUBBARD, President,
Rome, Kas.

Costs You Nothing To Try It. The Natural Body Brace

Cures Female Weakness. Makes Walking and work easy. Thousands of letters like this:

WEST HAVEN, CONN., July 29th, 1895.

"I am wonderfully improved. Can walk, eat, sleep and work with comfort. Was failing before using Brace—with falling womb, pains all through abdomen, painful menstruation, constipation, poor circulation, stomach trouble, etc. I cannot begin to say enough in praise or thanks for the Brace. All who have gotten Braces here are much pleased with them. The inventor ought to have a monument erected to him as a lasting testimonial."

Mrs. L. W. TRYON.
Money Refunded if Brace is not satisfactory. Send for full information.

Natural Body Brace Co.,
Box 161, Salina, Kas.
Every Pregnant Woman Should Have This Brace.

NEW STYLE MANTEL FREE

FOLDING BED FREE to ladies willing to take few orders. Is the strongest, simplest and best bed ever made. 10-year-old child can raise, lower or move it. To introduce, only \$6.25, DELIVERED. A gold mine for honest agents. K. C. BED CO., 1504 Main St., Kansas City, Mo.

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 FEEL IN THE CHRIS'MAS AIR.

They's a kind o' feel in the air, to me,
When the Chris'mas time sets in,
That's about as much of a mystery
As ever I've run a'g'in!—
For instance, now, while I gain in weight
And general health, I swear
They's a goneness somers I can't quite state,
A kind o' feel in the air.

They's a feel, as I say, in the air that's jest
As blame-done sad as sweet!—
In the same ra-sho as I feel the best
And am spryest on my feet
They's allus a kin o' sort of a' ache
That I can't lo-cate no-where;—
But it comes with Chris'mas and no mistake!—
A kind o' feel in the air.

Is it the racket the children raise?
Why no!—God bless 'em!—no!
Is it the eyes and the cheeks ablaze—
Like my own wuz, long ago?—
Is it the bleat o' the whistle, and beat
O' the little toy-drum, and blare
O' the horn?—no! no!—It is jest the sweet—
The sad-sweet feel in the air
—James Whitcomb Riley.

"This happy day, whose risen sun
Shall set not through eternity,
This holy day, when Christ, the Lord,
Took on Him our humanity,
For little children everywhere
A joyous season still we make;
We bring our precious gifts to them
Even for the dear child Jesus' sake."
—Phæbe Cary.

"At Christmas-tide the open hand
Scatters its bounty o'er sea and land,
And none are left to grieve alone,
For Love is heaven, and claims its own."
—Margaret E. Sangster.

"We speak of a Merry Christmas,
And many a Happy New Year;
But each in his heart is thinking
Of those that are not here."
—Longfellow.

NERVOUS CHILDREN.

Parents Are Responsible for Many of the Ills of Their Loved Ones.

An increased tendency to nervous disorders in childhood is a characteristic of the present age. Children now suffer from various symptoms which formerly were uncommon, except in advanced life or among confirmed invalids.

Some of the symptoms thus observed are extreme exhaustion after slight overexertion, neuralgic pains in the head or back, a tendency to hysteria, and, on the other hand, an abnormal craving for excitement.

Parents of children who suffer in this way from "nervous" symptoms should look the matter squarely in the face, and ask themselves if they are not in part to blame.

One of the common mistakes of parents is that of allowing their children to share in the pastimes and pleasures of their elders; pastimes and pleasures which in many cases are of too stimulating a character for a child's more susceptible nervous organization. The fact that this is done out of affection for the children, and from a desire for their companionship, does not render it less harmful.

Again, children are too frequently granted the things for which they ask or cry, without regard to the wisdom of their desires. It is a mistake to suppose that the will power of a child is weakened by denying him that which gives him momentary pleasure.

The tendency toward making children prominent in the household, while not to be condemned altogether, may easily be carried to excess.

A child, even at an early age, should be allowed to play and to spend some time in amusing himself. When the bed hour comes he should be put to bed, and it is best that this should be done without rocking or walking. The hours of sleep should be long.

If any unusual or unnatural habits are developed by the child, the physician should examine him carefully. In nearly every case some local irritation will be found, the relief of which will remedy the evil. The child's clothes should fit loosely.

The hysterical nature of the child is developed by "showing him off," or by relating his exploits before him. Constant scolding tends to make him less tractable.

Out-of-door air is necessary to the child's health. Play in the open air supplies the physical wants of a child better than the restraints of carpet and furniture.—Youth's Companion.

COMMANDS A REGIMENT.

Empress Augusta Victoria Is a Full-Fledged Colonel.

In Nominal Charge of One of the Finest Organizations in the Prussian Army—Famous Queen Louise One of Her Predecessors.

It is not generally known that the empress of Germany is a full-fledged colonel of one of the finest regiments in the vast army of the empire.

The advent of the new woman has nothing to do with the military prominence of this lady. The dead and gone German queens were colonels before the new woman was ever thought of. The dowager empress is also a colonel and so are a number of other women of the royal house of Germany. Of course their military standing is largely nominal. There is not one chance in 10,000 that these queens and duchesses will ever do anything more warlike than don a pretty feminine edition of the uniform of a favorite regiment and review the soldiers on some festival occasion.

That is about all that King William's wife does, but her soldiers feel that they are more honored than the average, and to be a member of the queen's regiment is esteemed a most fortunate piece of good luck.

The regiment colonized by the empress is known as the queen's regiment of Pommeranian cuirassiers. Its war record is a most brilliant one, it having been the favorite regiment of Frederick the Great. On June 4 last the command celebrated the 150th anniversary of the greatest battle it ever fought.

The celebration took place at Passau, near Berlin, and the empress, on a fine military charger and wearing the uniform of her command, reviewed the troops. The empress is a fine horsewoman and gets almost as much pleasure out of the evolutions as her husband.

The battle celebrated was that of Hohen-Friedberg. The regiment was then under the command of Frederick the Great, and attacked the combined Austrian and Saxon forces. It was due entirely to the heroic work of the soldiers of the Bayreuth dragoons, as the regiment was then called, that the battle was won. They made 2,500 prisoners, captured 66 battleflags, 20 cannon,



EMPERESS AUGUSTA VICTORIA.

and conquered ten regiments of Austria's best veteran troops.

The regiment is one in which the reigning family of Germany takes a peculiar interest. It was founded on June 1, 1721, by Frederick William I., king of Prussia, and father of Frederick the Great. The reigning family was descended from Frederick of Hohenzollern, a German count in 980, and Frederick William, the elector of Brandenburg, 1640-88, whose son, the king of Prussia, was the founder of the regiment which was first called the Schulenberg dragoons. Later it was called the Bayreuth dragoons, but upon the death of the late count of Bayreuth in 1808, it was given its present title.

In 1805 the famous Queen Louise took upon herself the title of colonel of this regiment, and since then all the succeeding wives of the Prussian kings have done the same. Queen Louise inspected her regiment regularly, and took great interest in its welfare. Then, as now, the uniform was white, but in the battle of Hohen-Friedberg it was

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

Royal Baking Powder

ABSOLUTELY PURE

clothed in light blue. In 1819, two years before the celebration of its 100th anniversary, the regiment was changed from dragoon to cuirassier.

From the ranks of the Pommeranians the queen's guard, which is always near her, is chosen. This guard is commanded by an officer of the regiment, and he is held responsible for the safety of the royal lady. The guard has quarters near the imperial palace and is on an equal footing with the garde du corps, which looks out for the safety of the emperor.

In all the great wars that Germany has had in the last century and a half, the Pommeranians have taken a prominent part. There is nothing feminine about the fighting abilities of the regiment, notwithstanding that its colonel is a woman. It was regarded as the best regiment of all the German forces in the Franco-Prussian war, and the old Emperor William, in the heat of battle, often called out: "Where are the Hohen-Friedbergers?"

The Pommeranians have their own band, the musicians being mounted upon fine horses. It is the ambition of the little Princess Victoria Louise, the only daughter of the empress, to be a colonel of a regiment. She regards her mother as the finest soldier in the land when the empress is gowned in her uniform.

FAMILY SCRAP BASKET.

FREQUENT turning is the secret of successful broiling.

ALWAYS use a wooden spoon for mixing cake, as an iron one discolors the butter.

A DASH of cinnamon in a cup of chocolate after it is poured is said to add a piquant flavor.

WEAR well-fitting shoes about your housework. They are less fatiguing than loose, untidy slippers.

LONG-HANDLED button-hooks are ornamented with sterling silver and the manicure sets are charming.

IN baking bread or rolls put a saucepan of boiling water into the oven. The steam will keep the crust smooth and tender.

ONIONS, potatoes and cabbages for soup should always be scalded before being used, to draw out indigestible qualities.

SHOEHORNS of polished ebony are enriched by the application of an exquisitely chased scroll of sterling silver upon the handle.

IF the children have no appetite in the morning, don't allow them to start for school without first drinking a glass of hot milk.

MUCH of the heavy cake and bread is the result of the oven door being slammed when closed. Shut the door gently as possible.

A NEW dainty for afternoon tea, which can be cordially recommended, is a macaroon sandwich. It is made with two macaroons between which is placed a very thin slice of sage cheese.

It should be universally known that sand or flour scattered over burning oil will extinguish it. Every household in which lamps are used should have a box filled with sand in a convenient place, ready for all emergencies.—Farmers' Voice.

How to Prepare Orange Souffle.

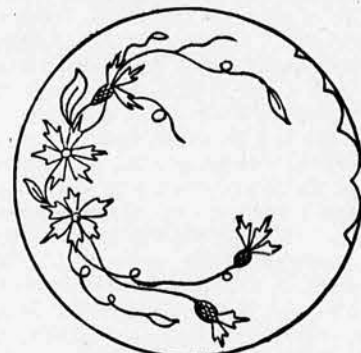
Cover a half box of gelatine with a half cup of cold water and soak half an hour. Take the juice of six oranges, which should measure a pint, stir into it two-thirds of a cup of sugar. Stand the gelatine over hot water until dissolved, then add it to the orange juice and sugar, and when it begins to thicken stir in one pint of whipped cream. Turn into a mold and stand away to harden.

The best way to avoid scalp diseases, hair falling out, and premature baldness, is to use the best preventive known for that purpose—Hall's Hair Renewer.

TOP FOR PINCUSHION.

If Embroidered According to Directions It Is Very Pretty.

Use two shades of old rose for the bachelor's buttons, yellow for the cent-



ters and pale green for the leaves, with darker green for the stems. A border may be used as shown in the design and cut out; in that case sew your lace to the pincushion and pin this cover over it.—Orange Judd Farmer.

Bran Bags for the Bath.

Bran bags are delightful adjuncts to summer baths. They soften and sweeten the water and add a new power of refreshment to the rites of ablution. They are rather expensive when bought, but when made at home they are among the cheapest of toilet luxuries.



FREE TO SUFFERING WOMEN.

I suffered for years with uterine troubles, painful periods, leucorrhoea, displacement and other irregularities, and finally found a simple, safe home treatment, that cured me without the aid of medical attendance. This is no quack doctor's medicine; but nature's own remedy for women. It costs nothing to convince yourself of its merits, for I send it free with full instructions to every suffering woman. Address, MRS. L. HUDNUT, South Bend, Ind.

Catarrh caused hoarseness and difficulty in speaking. I also to a great extent lost hearing. By the use of Ely's Cream Balm dropping of mucus has ceased, voice and hearing have greatly improved. — J. W. Davidson, Attorney at Law, Monmouth, Ill.



CATARRH

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

A particle is applied into each nostril and is agreeable. Price 50 cents at Druggists or by mail. ELY BROTHERS, 56 Warren Street, New York.

The Profits from Hens

—if they are rightly managed and cared for—are larger than from any other stock. If you would know how to make money on poultry, whether on a farm or in village or suburb, subscribe to

Farm-Poultry

SEMI-MONTHLY.

Its pages are brimful of practical information gained by the actual experience of its editors, and of profitable suggestions from the most successful poultry raisers all over the country. You can't afford to be without Farm-Poultry, if you raise, or intend to raise, poultry. \$1.00 a year; 50c for 6 months. Sample copy mailed for 2 cents.

I. S. JOHNSON & CO., 38 Custom House St., BOSTON, MASS.

The Young Folks.

PEACE ON EARTH.

"What means this glory round our feet,"
The Magi mused, "more bright than morn?"
And voices chanted clear and sweet,
"To-day the Prince of Peace is born!"

"What means this star," the shepherds said,
"That brightens through the rocky glen?"
And angels answering, overhead,
Sang, "Peace on earth, good will to men!"

'Tis eighteen hundred years and more
Since those sweet oracles were dumb;
We wait for Him, like them of yore;
Alas! He seems so slow to come!

But it was said, in words of gold
No time or sorrow ere shall dim,
That little children might be held
In perfect trust to come to Him.

All 'round our feet shall ever shine
A light like that the wise men saw,
If we our loving wills incline
To that sweet Life which is the Law.

So shall we learn to understand
The simple faith of shepherds then,
And kindly clasping hand in hand,
Sing, "Peace on earth, good will to men!"
—James Russell Lowell.

A STRANGE CREATURE

The Manatee One of the Most Peculiar
Animals Native to America.

Of all the large animals of the American continent, none is more remarkable in form than the manatee.

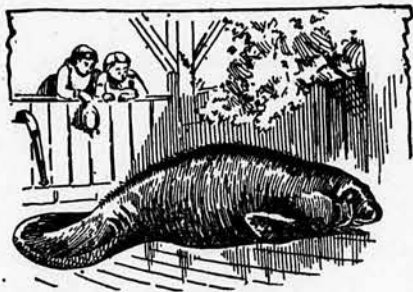
Although this strange creature is of goodly size, often reaching a weight of several hundred pounds, and sometimes attaining a length of 13 feet, yet I venture to say that not more than one person out of every 4,000 in the United States could now arise and correctly answer the question: "What is a manatee?" Whenever you mention the name of the creature to any one save a student of quadrupeds, of a surety you will have that question to answer forthwith.

The manatee is an animal that lives exclusively in the water, and while it is shaped somewhat like a seal, it is very far from being one. I mention the seal by way of comparison solely because it is the only quadruped which can be used. The heavy, buglike body, short neck, blunt nose and round head of our harbor seal do indeed suggest the form of the manatee; but there the resemblance stops short.

Instead of having hind flippers like a seal, the body of the manatee terminates in a very broad and very flat tail, which forms an admirable propeller. Its front limbs are simply big, flat paddles, by no means so shapely and useful as the front flippers of a sea lion. It has no hair—or, at least, none to speak of; a smooth, but very thick and tough skin, small weak eyes and a blunt nose. Instead of having teeth like a seal, and feeding on fish, it has only a set of rather weak molars, and lives solely on aquatic plants.

It lives in the mouths and lower reaches of rivers that flow into the sea in tropical latitudes, and while it does not object to salt water, it is most at home in water that is either brackish or else quite fresh; and the latter is preferred because of its aquatic vegetation. Unlike the seal, it is quite unable to come out on land.

I am glad to be able to say that even to-day this remarkable animal is an in-



THE MANATEE.

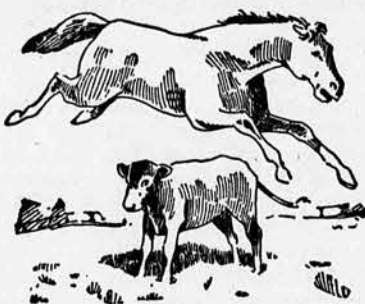
habitant of one portion of our strangely diversified United States.

For some particular reason, probably the abundance of good food combined with a good depth of water, a number of manatees have chosen to inhabit the St. Lucie river, Brevard county, Fla., which flows into Indian river, 13 miles above Jupiter inlet. Their presence there has been well known for 20 years or so; but, fortunately for them, they possess neither the checkered-leather hide of the sad-eyed alligator, the spunglass plumes of the unhappy egret, or the delicious flesh of the wild turkey; and so as yet they have not been entirely exterminated.

PLAYMATE AND FRIEND.

A Vermont Farm Horse Who Was Guardian of a Calf.

On a farm in Vermont there are two horses and a herd of half a dozen cows. The animals run together in the pasture and are on the most friendly terms. One horse named Jack has a special affection for Betsy, a brindled cow, and the two almost always graze together. Last spring Betsy had a calf at her side, and Jack seemed to regard the youngster as his own special care. Hitherto Jack had been a very demure and dignified horse, but the sportive tendencies of the calf developed a frisky mood on the part of the horse. Jack and the calf used to romp and play together a good part of the time, the former being very careful not to injure his young companion. Frequently Jack jumped over the back of the calf and then allowed himself to be



JACK AND HIS PLAYMATE.

chased by the little fellow, from whom he fled as though alarmed for his safety.

One day when the herd was in a distant part of the pasture Jack suddenly appeared at the farmhouse neighing loudly and telling as plainly as he could that he wanted human assistance. He would gallop furiously a short distance in the direction of the pasture, then wheel suddenly and gallop back to the house, throwing his head high in the air and neighing with all his might. The farmer called one of his men and the twain started in the direction indicated by the horse. When Jack saw that his meaning was understood he capered around with delight, rubbed his nose against his master's cheek and then went off at full gallop in the direction of the herd, that was still out of sight. Evidently he wanted to tell his four-footed companions that help was coming, as he soon returned and for the rest of the way went along very quietly in advance of the two men.

When the men reached the scene of the trouble they found that Betsy and her calf had somehow got into a bog or quagmire and were unable to extricate themselves. The supposition was that the inexperienced calf had strayed into the bog and Betsy, while trying to help him out, had become involved. A rope was needed to help the creatures to hard ground, and in order to bring it as soon as possible the farmer mounted on Jack's bare back and without bridle or halter rode to the farmhouse to procure it. Jack was a high-spirited animal and when under the saddle used to prance and show off, but on this occasion he realized that it was no time for play and went along as demurely as possible. In due time Betsy and her calf were extricated from their trouble, and the farmer says that their equine friend danced a jig for joy.—Thomas W. Knox, in Brooklyn Eagle.

THE DEATH'S-HEAD MOTH.

When It Attempts to Steal Honey It Usually Loses Its Life.

There is a large moth, commonly known as the death's-head moth, from its having a curious mark on its back like a skull and cross-bones sculptured on an old tombstone, which makes very free with the bees' honey. It flies in the dusk of the evening when the bees are at rest, and enters the hole in the hive, pokes its long sucker through the wax walls which surround the comb, and draws much honey into its stomach. Very often in the long even-

ing there are many bees lingering round about the hive, but if the death's-head alights and moves towards the door, they do not take much notice; yet one sting would kill it, and it has no means of hurting the bee in return. So much troubled are some hives by these curious visitors that the bees erect a flat wall of wax just within the hive door, allowing a small opening to exist on either hand. This, as a rule, puzzles the moth, and it cannot enter. On the other hand, if a moth gets right into the hive the bees do not kill it, but either let it alone or use all their ingenuity to stop its honey stealing propensities. Whilst the moth is enjoying the meal, the bees occasionally pull down some of the honeycomb behind it, and mold the wax quickly so as to form a dense wall. When the moth has finished its meal, and turns to get out of the hive, it finds itself walled up and imprisoned for life.—World of Wonders.

He Stood in Need of Prayers.

A Kentucky minister is the father of a bright youngster who has the bicycle fever like most boys of 12. The minister had occasion to leave the city recently on a short trip, and the first night after the departure the little fellow was saying his prayers as usual, and wound up without making any reference to his father. "You are not through, are you?" asked the mother. "Why, yes! What else must I pray for?" "For your father's safety," replied the mother. The youngster sprang to his feet in surprise and cried: "Why, mamma, I didn't know papa had a safety!"

The Force of Habit.

Force of habit impels us to do a great many ridiculous things. That clever little compendium of wit and information, Tit-Bits, well illustrates this fact with a story of a railway porter, living in Lancashire, who was in the habit of frequently getting up in his sleep, and from whose actions it was evident that his daily occupation was ever present in his mind. One night he jumped up hurriedly, ran down to the kitchen, vigorously opened the oven door, and cried out: "Change here for Bolton, Bury and Manchester."

Two Dogs Whipped by Sparrows.

One of the queerest battles ever witnessed took place near Nashville between two dogs and a flock of English sparrows under a big tree. The dogs began the attack, and the way in which they barked and snapped and tore up the earth impressed the spectators with the fact that victory was theirs. But it wasn't. The sparrows rose like a cloud and came down like an avalanche, and in less than two rounds the dogs were down on their backs and scrambling to escape. Each had lost an eye, and were otherwise so pecked and scarred that a committee of men had to rush in and carry them out of danger, leaving the sparrows triumphant and still full of fight.

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

Hood's PILLS for the liver and bowels, act easily, yet promptly and efficiently.

"We love and bless the hands we press
When the Christmas log is burning."
—Cook.



health than ever before. It is more than a year now since I quit using it and have not had a pain or sick day in all that time. It is certainly a wonderful medicine for the kidneys.

Yours truly,

JNO. H. ALBIN,
TOLARVILLE (HOLMES CO.), MISS.

ST. VITUS DANCE.

A Physician Prescribes Dr. Miles' Restorative Nervine.

Dr. Miles Medical Co., Elkhart, Ind.:

My daughter Mattie, aged 14, was afflicted last spring with St. Vitus dance and nervousness, her entire right side was numb and nearly paralyzed. We consulted a phy-



sician and he prescribed Dr. Miles' Restorative Nervine. She took three bottles before we saw any certain signs of improvement, but after that she began to improve very fast and I now think she is entirely cured. She has taken nine bottles of the Nervine, but no other medicine of any kind.

Knox, Ind., Jan. 5, '95. H. W. HOSTETTER.

Physicians prescribe Dr. Miles' Remedies because they are known to be the result of the long practice and experience of one of the brightest members of their profession, and are carefully compounded by experienced chemists, in exact accordance with Dr. Miles' prescriptions, as used in his practice.

On sale at all druggists. Write for Dr. Miles' Book on the Heart and Nerves. Dr. Miles Medical Co., Elkhart, Ind.

Dr. Miles' Remedies Restore Health.

MONEY—Salary or commission for part or all your time. Send stamp. National Inst., E.F., Chicago.

\$90 Agents Wanted everywhere to take orders for MARION HARLAND'S NEW BOOK, "Home of the Bible." Over 200 New Photos. Please Send Post. Pays Big. No experience needed. One sold 51 in 30 hours. Illus. Circulars Free. Address Historical Pub. Co., Phila.

How to Make Money.

Agents make money fast selling PERFECTION DISH-WASHERS. Washes and dries in two minutes. Sells at sight! For particulars write Perfection Manufacturing Co., Drawer a-3, Englewood P. O., Chicago, Ill.



The only Commercial College in Wichita! Actual Business Practice, through U.S. mail, with students of best Eastern Colleges, is the finest thing extant. The Commercial still leads, our only competitor having closed its doors. Write for Journal to-day!

Washburn College.

TOPEKA, KANSAS.

Collegiate, Academic, Musical departments. Classical, Scientific and Literary courses. Seven beautiful buildings. 160-acre campus. Large endowment. Faculty unexcelled. Highest standard of admission in the State. Expenses very low. Splendid facilities for science and classics. Fall term opened September 11, 1895. Catalogue on application.

Couldn't Stand Upright.

June 11th, 1894.

The Dr. J. H. McLean Medicine Co.,
St. Louis, Mo.

Gentlemen:

For about ten years I suffered with a pain in my back which I thought was caused by a strain, sometimes it got so bad I could not stand upright or ride in my buggy. I read in your almanac of symptoms that I recognized as my own, which led me to the conclusion that my trouble was disease in the kidneys. I immediately began using Dr. J. H. McLean's Liver and Kidney Balm. It proved to be the right medicine and reached the spot. I soon lost all pain and had better health than ever before. It is more than a year now since I quit using it and have not had a pain or sick day in all that time. It is certainly a wonderful medicine for the kidneys.

Yours truly,

JNO. H. ALBIN,
TOLARVILLE (HOLMES CO.), MISS.

The Rural New-Yorker helps
reduce the mortgage and in-
crease the profits of the farm.
Let us send it this week. Send
your address; no money.

The Rural New-Yorker,
409 Pearl Street, New York.

KANSAS FARMER.

ESTABLISHED IN 1863.

Published every Wednesday by the

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OFFICE:

No. 116 West Sixth Avenue.

SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.

An extra copy free fifty-two weeks for a club of six, at \$1.00 each.

Address KANSAS FARMER CO.,
Topeka, Kansas.

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Display advertising, 15 cents per line, agate, (fourteen lines to the inch).

Special reading notices, 25 cents per line.

Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per line for one year.

Annual cards in the Breeders' Directory, consisting of four lines or less, for \$15.00 per year, including a copy of KANSAS FARMER free.

Electros must have metal base.

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.

The published list of New York farmers' institutes for the present season numbers 136.

The third annual exhibition of the Inter-State Poultry Association will be held at Arkansas City, December 31 to January 4.

The December meeting of Shawnee County Horticultural Society will be held in G. A. R. hall, Topeka, on Thursday, 26th inst.

Notwithstanding the reported unprecedentedly large crop of corn produced in 1895, the amount placed in warehouse and elevator and by the trade called the visible supply, is less than at this time last year.

Secretary Coburn, of the State Board of Agriculture, has out a splendid program of the quarter-centennial meeting of the State Board of Agriculture, to be held at Topeka, January 8-10, 1896. It will be published next week.

The KANSAS FARMER begins the volume for 1896 on New Year's day. We desire to announce that we expect every present reader to remain a subscriber, as well as to induce their friends to join the army of good people who read the "Old Reliable" KANSAS FARMER, which we beg to assure all will not take second place to any agricultural journal in America.

The new KANSAS FARMER binder is made expressly for the convenience of those subscribers who desire to keep their KANSAS FARMERS for reference. It takes but a few seconds to put the paper in it when received. The binder holds fifty-two numbers, and keeps the papers in as nice shape as if they were a book. The price is 25 cents, post-paid, or \$1.10 for the binder and the FARMER one year. Send your own renewal for one year and a new yearly subscriber, with \$2 for both, and we will send two binders, one for yourself and one for the new subscriber.

In discussing the question of subjects for dissection by medical students—a question made prominent by the recent outrages of ghouls in the vicinity of Topeka—the "Family Doctor" proposes that the State furnish the medical colleges with these subjects. It is not apparent, however, why the State should furnish the subjects any more than the tools for cutting. While a proper education in the medical profession requires experience in the dissecting-room, this is no justification for grave robbing. No reason is apparent why the State should be more successful than the colleges in procuring corpses by other methods than taking without the consent of relatives. To make the State a grave-robbor because of its strength and its immunity from prosecution is not likely to commend itself to the minds of sensitive relatives. It is not apparent that the "Family Doctor" has pointed a way out of the difficulty.

THE WAR TALK.

So much war talk as has been indulged during the last week has not been heard in this country in many years. The occasion for it—a long-standing dispute between Great Britain and the Republic of Venezuela, in South America, about a boundary line—is a matter of so little concern to people of this country that the spontaneous and well-nigh universal approbation with which the somewhat bellicose message of President Cleveland on the subject has been received, must be interpreted as the expression of a war feeling which needs only an occasion to bring it out.

Briefly, there has been for something like half a century a disagreement as to the location of an imaginary line between Venezuela and British Guiana. Great Britain has not been at all uniform as to the location of this line as claimed by her, but has, on the average, inclined to claim more and more territory. An excuse was lately found for attempting to assert the right of the stronger by forcibly making the disputed territory British. The United States suggested that the question ought to be determined by arbitration. England replied substantially that there was nothing to arbitrate; that she was right and would have her way, by force if necessary.

It happened that, during the administration of President Monroe, Great Britain did not like some indicated intentions of some European powers as to aiding Spain to regain her revolted possessions in the new world, and at England's suggestion President Monroe made an announcement which has ever since been known as the Monroe doctrine, the chief points of which are: "That we should consider any attempt on the part [of European powers] to extend their system to any portion of this hemisphere as dangerous to our peace and safety," and "that we could not view any interposition for the purpose of oppressing [governments on this side of the water whose independence we had acknowledged] or controlling in any manner their destiny by any European power in any other light than as manifesting an unfriendly disposition towards the United States."

One of the most notable applications of this doctrine occurred when, after France had placed an Emperor on a throne in Mexico, this country at the close of the war of the rebellion sounded the Monroe doctrine, whereupon France withdrew her support and the Republicans of Mexico made short work of the capture, condemnation and execution of Maximilian.

In the present case, the British government claims that the Monroe doctrine is not applicable, and while admitting that it had a reputable parentage denies it a place in international law. She persists in her refusal to arbitrate the questions involved in the Venezuelan boundary dispute.

President Cleveland, on receiving England's final refusal to accede to this country's suggestion that she arbitrate with Venezuela, sent a message to Congress strongly adhering to the Monroe doctrine as applicable to the present case, and declaring that Great Britain's proposed coercion of Venezuela to give up the disputed territory is a menace to the peace and safety of the United States, and asking that Congress make an appropriation to defray the expenses of a commission, to be appointed by the President, to investigate the boundary question and ascertain the correct location of the disputed line. The President concludes his message by such allusions to the seriousness of the situation and the responsibilities involved in the proposed action as have clearly indicated to this country and to all other nations that war with England may follow the proposed action.

The message was received by Congress with unusual demonstrations of approval. The staid and dignified Senators, without distinction of party, indulged in clapping their hands at the conclusion of its reading. The prominent papers of the country, with the exception of the New York World, gloried in the fact that Americanism had received a great impulse. The almost universal expression everywhere

has indicated a readiness and even an anxiety for another fight with old England. The leading Irish-American organization has proposed to furnish 100,000 men "as brave and as good fighters as ever carried a musket."

Promptly and by unanimous vote the House passed the measure suggested by the President. The Senate sought to go slow and save its reputation for dignity and deliberation by amending the House measure. But after one day's consideration, the tide in favor of the bill became irresistible, and on last Friday all amendments were voted down and the bill was passed in that body, also, by a unanimous vote.

In England the message was at first treated as a bit of electioneering demagoguery. Nevertheless a profound sensation was produced, which soon resulted in depressing the market for American securities. Rothschild spoke and said there will be no war. Financiers generally view with alarm the suggestion of a conflict at arms.

In this country the dealers in money and securities have awakened to a realization of the fact that war means an end of selling American stocks and bonds in the best market in the world for such things, and are opposed to the very suggestion of hostilities. Their condemnation of President Cleveland for his message is now as severe as was recently their praise of his financial notions fulsome.

It is safe to predict that there will be no war, but that there will be a great deal of diplomacy which will possibly result in the settlement of the long-disputed boundary question. Already the world has notice that whatever others may think of the Monroe doctrine, it is our doctrine and we shall insist upon it.

OUR 1895 CHRISTMAS.

This is Christmas day. Once a year is none too often for the season of "Peace on earth and good will to men." Our hearts and homes are blessed and benefited at such times. Our troubles and life's toil are lightened by the observance of this day.

The KANSAS FARMER wishes every reader a very merry Christmas and many pleasant returns of the occasion.

VALUES OF FEEDS.

As a summary of the results of several series of experiments in feeding, Prof. Georgeson gives, in Bulletin No. 53, the following conclusions:

"First.—In the comparison of wheat, corn and Red Kaffir corn, as fattening food for hogs, the wheat proved to be the most effective, followed closely by corn; Red Kaffir corn, although a good feed, was not equal in fattening qualities to either of the others. It required respectively 4.11 pounds of wheat and 4.38 pounds of corn to produce a pound of gain, while of Red Kaffir corn it required 5.15 pounds to produce the same result, but it should be noted in this connection that the experiment was carried out during the coldest portion of the winter and that the hogs were confined strictly to these feeds. Under favorable weather the results would doubtless have been much better, and in like manner, these grains might have given different results if fed in judicious mixtures with other suitable hog feed.

"Second.—Cottonseed meal proved poisonous to pigs, even though fed in small quantities. A mixture of one-fourth cottonseed meal and three-fourths corn meal was as disastrous as equal parts of these feeds. The pigs died in from three to eight weeks after being put on this feed, the larger ones holding out the longest. Post-mortem examinations revealed in all cases severe inflammation and congestion of the intestines, lungs and heart. But cottonseed meal produces very rapid gains in both pigs and large hogs, and if feed is changed before symptoms of disease appear, hogs can be fed cottonseed meal for a short time with the best results, and this experiment would indicate without subsequent deleterious effects.

"Third.—Equal parts of corn meal and ground wheat proved to be a better food for pigs than either corn or wheat fed separately."

OAK GRANGE HALL.

This name has appeared in the KANSAS FARMER many times during recent years, and after many attempts to meet the farmers of the vicinity in this famous building, the editor entered its portals for the first time last Thursday. It was the occasion of the annual meeting of Shawnee County Farmers' Institute, a report of which appears elsewhere in this paper. But aside from this particular meeting, the hall itself and the neighborhood possess peculiar interest. Situated some six miles south of west from Topeka, the community is in no sense a hanger-on of city or town social institutions. It is a country neighborhood, without so much as a store or a blacksmith shop to suggest town aspirations or afford a loafing-place with its degenerative influences. The farms are well kept, none very large and none very small, and are usually occupied by their owners. The houses, barns and surroundings indicate thrift and industry, and present a pleasing contrast to the places nearer town, whose owners live in Topeka and entrust the care of the farm to tenants. The farms around Oak Grange are homes.

In this community a grange of the Patrons of Husbandry has long existed, and to this grange the hall belongs. It is a substantial two-story wooden building, well finished throughout. The assembly room, up-stairs, is fitted up in the usual style of a lodge room. The walls are nicely papered and adorned with pictures; the floor is covered with matting; there is an organ, a library, an altar, a secretary's table, chairs and a stove. The ante-rooms are ample and well arranged. Down-stairs is the kitchen and dining hall, and the festivities of Oak Grange and the various county societies which enjoy the hospitality of its roof are frequent and noted for good fellowship, as well as good food and plenty of it. A good well is noticeable near the entrance, and in the rear are ample sheds to protect the teams which bring the people to Oak Grange hall.

The land on which the building stands was presented to the grange by Maj. Wm. Sims, who was for many years Secretary of the State Board of Agriculture, and who is now President of the First National Bank of Topeka, but still has a strong attachment for the farm, on which his only son and all of his grandchildren reside.

Oak grange and its hall are institutions which one may well wish were duplicated in every farm community in Kansas. The buildings, which cost about \$2,000, are fully paid for, and the grange has money in its treasury. The success of this grange is attributable to the fact that it was founded in a neighborhood of the highest order of people, and that it has studied, learned and practiced the principles of the grange. It has always rigorously excluded politics. It is related that once upon a time a prominent citizen of Topeka, who figures freely in politics, was invited to address a neighborhood meeting at Oak Grange hall, it being stipulated that he should avoid politics. Several prominent men of the same political faith with the speaker cautioned him and each had his promise to let party interests alone. These pledges were well observed and a fine address was given for half an hour. Then the speaker forgot his promises and attacked the platform of the opposite party with great energy for another half hour. He has never since had an opportunity to speak at Oak Grange hall, and his voice is not likely to ever be heard there again.

The influence of an institution like Oak grange, with its liberality as to the use of its property for the best interests of the community, cannot be measured and is not likely to be overestimated. It is a center for social life of the farm, the lack of which has been sorely felt in thousands of communities and has been the cause of a large proportion of the dissatisfaction with farm life.

The estimated 1895 production of the cereals—wheat, corn, oats, rye, barley and buckwheat—in the United States is 3,603,000,000, being the largest aggregate on record.

POTATO SOAB.

The deterioration of the yield and quality of the potato crop by the prevalence of scab is so serious a matter that every honest effort to determine the conditions which either favor or retard this disease is worthy of respectful attention and careful study. It is not to be expected that the conditions and conclusions of every experimenter will be repeated in the experience of every other, but by diligent study of developments in this, as in other lines of farm work, we may keep up with the times and be prepared to determine the best course to pursue in our own case.

At the Rhode Island Experiment Station, Profs. H. J. Wheeler and G. M. Tucker have conducted extensive experiments as to potato scab. These are well described in their October bulletin. The following is their general summary:

1. Experiments for three years show that the growth of the potato scab fungus is promoted by the presence of air-slaked lime.

2. Wood ashes (which like air-slaked lime consist largely of calcium carbonate), pure calcium carbonate, calcium acetate and calcium oxalate, also promote the scab in a high degree.

3. Calcium chloride injured the potato plants but entirely prevented the scab, although an abundance of germs was probably introduced.

4. Calcium sulphate (known as land plaster and gypsum) is the only form of lime employed which has not injured the growth of the crops, and which has at the same time failed to promote with certainty the development of the scab.

5. The form of the lime determines its ability to promote or hinder the development of the disease.

6. Upon our acid soil, which has been partially neutralized by air-slaked lime, the use of ammonium sulphate has, under otherwise like circumstances, resulted in producing tubers less scabby than where the same amount of nitrogen in form of sodium nitrate was used.

7. Common salt (sodium chloride) has reduced the percentage of scab, and since sea-weed carries much salt a satisfactory explanation is afforded for the opinion commonly held that by its use less scab results than without it.

8. Sodium carbonate acts in the same way as calcium carbonate, though perhaps not in the same degree, and promotes decidedly the development of the disease.

9. Barnyard manure, owing to its alkalinity or the production of carbonates from it, has probably in and of itself increased the scab.

10. Oxalic acid seems to have had a tendency, even when applied at the time of planting, to reduce the percentage of scab, though owing to the fact that much of it had probably decomposed before the tubers were formed, very marked results were not obtained.

11. Our experiments for three years on our acid soil, go to show that calcium and sodium carbonates, either by virtue of the combined carbonic acid which they carry, or owing to their action in overcoming the acidity of the soil (by which, perhaps, naturally antiseptic compounds are transformed), do favor, in a high degree, the development of the potato scab.

12. It is obvious that anything which would be employed, in an economical way, to reduce the acidity of the soil, must be a carbonate of some base, or a compound which when introduced into the soil would readily be converted into such.

13. By the use of air-slaked lime, wood ashes, barnyard manure, soda ash (sodium carbonate), or double carbonates of potash and magnesia, the production of scab would be favored.

14. If favorable for its development, the fungous seems to multiply in the soil independent of the continual presence of potatoes or other root crops, though how long this is possible without the occasional intervention of some root crop is unknown.

15. The results show the danger liable to follow even if a few germs are introduced into the soil, provided it is of itself or has been made by injudi-

cious fertilization highly favorable to the development of the scab.

16. It is shown in a striking manner that the corrosive sublimate, or some other satisfactory treatment of the seed tubers, should always be resorted to on soils which are favorable to the development of the potato scab.

17. Upon our acid soil practical immunity from scab has been secured upon three successive crops by the use of fertilizers representing our ordinary commercial fertilizers, even when slightly scabbed untreated seed tubers have been employed.

18. Upon such soil the total yield has been but little increased by liming, though the percentage of large tubers shows an average gain of about 10 per cent.

19. By the use of chemicals our acid soil, which furnishes practical immunity from the scab, is nevertheless capable, at ordinary prices, of producing potatoes at a profit.

20. The claim that the character of a soil has no effect upon the disease "for better or worse" appears to have been entirely unfounded.

21. By the use of ammonium sulphate, and probably muriate and sulphate of potash, kainit and common salt in connection with dissolved phosphate rock, dissolved bone, or dissolved bone-black, soils which now tend to produce scabby tubers would probably become less favorable to the disease. It is possible that a rational system of rotation of crops which would include no beets or other root crops, and perhaps no cabbages, would also help to alleviate the conditions on such soils.

DIRECT EXCHANGE OF PRODUCTS.

The organization of a new company at Topeka has been announced, under the name of the Western Exporting and Importing Co., with a capital stock of \$200,000, to export American commodities and import goods of foreign production needed by the American patrons of the company.

It is chartered under the laws of Kansas, with 20,000 shares of \$10 each. George C. Lockwood, of Topeka, is President; Riley Ayers, of Silver Lake, Vice President; J. W. Wise, of Tecumseh township, Treasurer; J. P. Helms, of Silver Lake township, Secretary; W. S. Price, of Tecumseh, general soliciting and inspecting agent, and H. A. W. Corfield, recently of the land department of the Santa Fe road, the European agent of the company. The headquarters and main warehouse and office of the company will be at Topeka, in the Office block. The object of the company is stated to be to bring the farmer and producer of the West into closer communion with the consumers of the world.

The company will deal in products of the farm, of the flouring mills and other manufactories of breadstuffs, of the canning factories, and in preserved meats, walnut, oak and other timbers. A certain agreed per cent., based upon the latest cabled prices from England, will be paid the producer for his products, and the balance as soon as returns are had from Europe. It is expected by the company that the charges for handling and selling will be about 2½ to 5 per cent., and it is believed that this will earn handsome dividends on the shares and pay all expenses.

FREDERICK WILLIAM BARTEDES.

We present this week, in our Horticultural department, a splendid likeness of Frederick William Barteldes, the senior member of the firm of F. Barteldes & Co., owners of the Kansas Seed House, Lawrence, Kas. Mr. Barteldes was born at Hanover, Germany, October 22, 1852, and to-day is regarded as one of the most prominent and successful business men of Kansas. His business career has been in this State and the Kansas Seed House is an institution that does credit to any State.

The Kansas Seed House was founded in 1860, by F. Barteldes, an uncle of the subject of this sketch, who started with the munificent capital of \$5. In 1863, the business had assumed some pretensions, but the plant was destroyed that year by Quantrell's raid. Frederick William Barteldes entered his uncle's firm in 1874, and was joined in 1884 by Mr. Max Wilhelmi, and these two men

are now sole proprietors and have been since the death of F. Barteldes, in 1887. By skillful industry and enterprise and scrupulous attention to their customers and the growing and changing demand of the trade, the present firm has built up an enormous business, both at home and abroad. The amount of the annual sales are nearly a half million dollars. They employ four traveling salesmen and have from fifteen to twenty regular employees in their retail store and ware-rooms. Their retail store is 25x115 feet, two stories, and ware-rooms 100x120 feet, three stories.

To give some comprehensive idea of the steady growth of the business of the Kansas Seed House during the last fifteen years: The annual sales of cabbage seed in 1880 was 277 pounds, in 1895 4,945 pounds; beets in 1880 80 pounds, in 1895 12,390 pounds; beans in 1880 1,933 bushels, in 1895 5,000 bushels; cucumbers in 1880 80 pounds, in 1895 15,200 pounds; onions in 1880 978 pounds, in 1895 14,855 pounds; lettuce in 1880 55 pounds, in 1895 4,210 pounds; melon seed in 1880 160 pounds, in 1895 54,000 pounds; peas in 1880 80 bushels, in 1895 4,500 bushels; radish in 1880 350 pounds, in 1895 30,500 pounds; tomatoes in 1880 53 pounds, in 1895 3,680 pounds; turnip seed in 1880 880 pounds, in 1895 34,600 pounds, and grass seeds in proportion. This remarkable showing is a splendid tribute of the public appreciation of a really first-class and reliable seed house. It requires a capital of \$150,000 to conduct the enormous seed trade of this firm.

They have gotten out 75,000 new descriptive catalogues for 1896, which they will send out free to any of our readers who require reliable seeds of any kind.

The KANSAS FARMER is always glad to chronicle the success of Kansas institutions that are as creditable as the Kansas Seed House, and our readers who have been patrons of this house for so many years will be pleased to view the man who has so largely contributed to this great Kansas success—Mr. Frederick William Barteldes, of Lawrence.

Farmers' Institutes.

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

Overbrook—(no date).
Peabody—January 30-31, Profs. Mayo and Lantz.
Edgerton—January 23-24, Profs. Graham and Georgeson.
Washington—January 16-17, Profs. Mayo and White.
Randolph—January 30-31, Profs. Georgeson, Winchup and Will.
Hutchinson—February 6-7, Profs. Pope and Mason.
Hiawatha—December 26-27, President Fairchild and Prof. Mason.

Wants to Know About English Blue Grass.

EDITOR KANSAS FARMER:—I have talked to several farmers that speak highly of English blue grass, but none of them have had any experience with it. I would like if you or some one that has had experience would tell when is the best time to sow and how much seed per acre, and whether it can be sowed with oats or wheat, and, in fact, give full history how to handle it, from time to sow until it is harvested. Please answer and oblige a young farmer and a seeker of knowledge.

Labette, Kas.

Although many remedies are pushed into the market by spicy advertisements, Dr. Bull's Cough Syrup still takes the lead.

Every breeder in Kansas should have the *Breeder's Gazette* (price \$2 a year) and the *KANSAS FARMER* (\$1 a year). Both journals are furnished by us for the price of one paper, viz., \$2.

The Most Popular Highway of Travel, penetrating the principal cities of the East—the shortest line between Chicago and Boston, with solid through trains to New York city via Fort Wayne, Cleveland and Buffalo, and the only line via these cities having colored porters on its first and second-class day coaches at the disposal of its patrons, is the NICKEL PLATE ROAD, whose unexcelled train service and most liberal rates have long been recognized by east-bound travelers. J. Y. Calahan, General Agent, 111 Adams St., Chicago, Ill.

Publishers' Paragraphs.

Remember, you can get the KANSAS FARMER and the *Irrigation Age*, both for one year, for only \$1.75, under the new arrangement. Send orders to this office.

Are you interested in Jersey cattle? The *Jersey Bulletin*, published at Indianapolis, Ind., is a publication devoted entirely to the interests of this breed of dairy cattle. Regular subscription price is \$2 per year. Send us \$2.30 and we will send you KANSAS FARMER one year and also the *Jersey Bulletin*.

One of the most novel special editions of any paper that we have read is the November 1 issue of the *Dakota Farmer*, Aberdeen, S. D. It is devoted entirely to the subject of "Irrigation and the Greatest Artesian Basin in the World," and is profusely illustrated. The publisher will mail copies to any address on receipt of 5 cents in postage stamps.

Our readers who have been looking for Hood's Calendar for 1896 will be glad to know that it is out and may be obtained from the druggists or by sending 6 cents in stamps to C. I. Hood & Co., Lowell, Mass. The new calendar is certainly a triumph of art. It represents a lovely head in beautiful brown tints, surrounded by a gold frame, embossed decidedly "up to date." It makes a useful ornament for the home and a pleasant reminder of Hood's Sarsaparilla.

It is shown by reliable statistics that the losses that the swine breeders meet with through the cholera is only a small per cent. as compared to those that annually occur in the farrowing pen where thousands upon thousands of fine animals perish every year on account of difficult farrowing. This could be avoided by a little precaution on the part of breeders by providing themselves with a pair of pig forceps and render assistance at the critical time. J. N. Reimers, of Davenport, Iowa, manufactures the best kind. Write him. He also sends free a little book on the pig, containing many pointers for breeders. See his advertisement in another place. Name this paper when sending for book on pigs.

Rev. Irl R. Hicks, the celebrated storm prophet, of St. Louis, is now a household name in nearly every home in America. The testimony of a large number of careful observers is that 99 per cent. of Hicks' predictions are fulfilled to the letter. His series of annual Almanacs are now well and favorably known in all parts of this country and in foreign lands. The new Almanac for 1896 contains 100 pages, printed on fine book paper, with covers elegantly printed in colors. The matter, although scientific, is written in popular style, there being nothing difficult to understand about it. It is also finely illustrated. This fine Almanac is given as a premium to every yearly subscriber to the Rev. Irl R. Hicks' well-known and deservedly popular paper, *Word and Works*. Subscription \$1 a year. You can send for both direct to Word and Works Publishing Co., St. Louis, Mo. Single copies of *Word and Works* 10 cents.

SCHOOL BOOKS.—Those of our readers who are interested in the question of school books are referred to the advertisement of Crane & Co., Topeka, who have been engaged for many years in publishing law books. About all of the Kansas law books that are not published by the State are produced by this house. For many years the people of this State, especially those who have had school books to buy and pay for, have complained bitterly of the high prices that have been demanded. There is no reason why it should require three bushels of corn to buy a Third Reader now, while in 1889 one could be bought for the price of one bushel of corn. Why not the price of school books come down while everything else is depressed? The price of everything that goes to produce books has been materially reduced and the cost is also cheapened by improved machinery. The school book branch of Crane & Co.'s business is in its infancy. The books that have thus far been introduced are up to the standard of the old-line books, both from an educational and mechanical standpoint. The "Readers" have been in use about two years and are well liked. There are no complaints from those who have used them. The matter of their introduction into the Kansas schools is being bitterly fought by the old companies, who have to let loose of a monopoly. As long as a Kansas institution offers something as good as the big Eastern publishers do, especially at a great reduction in prices, there is no good reason for any longer continuing in patronizing the high-priced monopolies. The reputation of Crane & Co. has for many years been, that it is the best printing house in the West. They are now engaged in producing a large illustrated catalogue which comes to them from Kansas City, on account of quality; their bid for the work was \$100 higher than the Kansas City firms. They produced the largest catalogue ever gotten out in the South, for the largest firm in New Orleans. It was a \$20,000 job, but came here on account of the quality of their work. There is no experiment in patronizing such a house; we are proud of them, and hope they will succeed in rooting out the old high-priced school books and relieve Kansas school book buyers.

In the Dairy.

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

THE WAR ON OLEO.

From present indications it would seem that the same old fight will be continued against the manufacturers of imitation butter in this State. The packing-house combination is a strong one and will die hard. They well know that to be deprived of the color of the genuine article means a suspension of that part of the packing-house business in Kansas. The enormous profits in the trade has led to every device that could be concocted by shrewd men to deceive the public; but the decision one year ago by the Supreme court, and the recent ruling of the Treasury Department, draws the coils a little closer about these friends of the poor man(?)

Another point in favor of the dairyman is, the product is not as popular as it was two or three years ago. People are more concerned about what they eat, and the principal reason for their ever using the compound was in thinking it was butter. Dairying in Kansas has come to be of so much importance, that with protective laws it will soon out-rank any of our farm operations.

The packers told the farmers last winter that if any anti-oleo laws were passed, the price on stock would be reduced. How has it resulted? The proposed law was defeated, and hogs are the lowest known in twelve or fifteen years, and cattle are no higher. If the price on stock had been raised after this defeat, the farmers might have thought the packers were honest in their statements. This bluff comes up from Kansas City at every session of the Legislature when there is any agitation in regard to oleo laws. The State of New York has expended in the last ten years nearly \$1,000,000 to protect her dairy interests, and has prospered and grown wealthy by the outlay. Iowa, after a hard struggle, passed restrictive laws, and is now enjoying the full satisfaction of seeing her dairymen protected and their business increasing. Nearly every hotel in that State that formerly used oleo now uses butter. Iowa is paying out \$4,000 or \$5,000 yearly to guard this great industry and is increasing in wealth several times that amount. When the proposed law was before the House committee in Kansas last winter, an agent of Armour's, enlarging upon some of the features of the bill, said it would necessitate the payment in two years of the enormous sum of \$8,000 or \$10,000 to protect a few insignificant dairymen and their cows, and he tried to make it appear that such an expenditure would nearly bankrupt the State.

How is it in regard to this infant industry that the packing-houses are trying to kill? There are in the State from 140 to 150 creameries, besides numerous private dairies. During the year 1895, Kansas farmers will have been paid for milk nearly \$5,000,000. Dickinson county alone will distribute \$300,000 of this amount.

Kansas must be regarded as a dairy State until the prices of feeding stuffs advance to a point where it would not pay to feed it to dairy cows, and this is not likely to happen very soon, as at any time within the past five years the raw material would not net the producer as much when hauled away from the farm, as when converted into milk, cheese or butter. Farmers may be a little slow in adopting this change of policy, but from the present outlook the increase in cows and dairy farms is only a question of a few years. Since our exhibit of butter at the World's Fair, and the high rating of Kansas creameries in the commercial markets of the country, disinterested writers on dairy matters predict a brilliant future for this industry, and certain it is that our butter brings the highest price wherever it has been once used. The success of so valuable a business means much to the State at large, and every dairyman, farmer and land-owner should join hands in securing such laws as will benefit every county in the State, and crown the dairy cow as queen of all that is fair and honest.

Notes on Rearing and Feeding Calves.

The average cost of raising a heifer to two years on skim-milk at 10 cents a can and pasture at 75 cents per month, is about \$22. Where can you, for \$25, buy an equal, or as fine a two-year-old, which will improve in value each year up to six years old, unless accident befalls her, and which is no more likely than to any other animal.

In starting the young calf, give them pure milk the first week and then put them on skim-milk made blood warm. Feed them about three quarts of skim-milk twice a day until about four or five weeks old, then raise the amount to four or five quarts twice a day. After the little calf is about ten days old, you can tempt his appetite with a little good ship feed and some fine hay. As calves grow older, give all the feed they will eat up clean; also what hay they want. Calves are very fond of apples cut into their food. Refuse winter apples fed through the fall, will make them thrive and look enough better to more than pay the cost. Linseed meal is a good food to use to keep calves in good condition. Calves should be fed milk during four months, then by keeping them warm and clean and by giving them what feed they will eat, they will thrive all winter and when turned out to good pasture in the spring, they will grow all summer and make elegant yearlings the next fall.

An all-important question for us to consider is: Have we the right foundation stock to raise calves from? Do we select them from our very best milking strains, or do we raise a calf if it happens to be a nicely marked heifer or a good shaped one? It is very important that every farmer intending to raise his stock should keep at the head of his herd just as good a sire as he can buy, of some approved breed. By paying a good price we can usually buy a very fine bull, and this money will prove to be well invested and pay a good interest if we should raise ten or fifteen calves from that bull and they should prove to be fine milking cows. We should select calves for raising from cows having individual merit, those not only giving a large quantity of milk, but those which are persistent milkers.

Fall and winter calves when turned to pasture in the spring will grow all summer, but a calf started in April or May, if turned out to pasture, about the time it begins to grow, fly time comes and the little animal has steady employment for about two months in keeping the flies off, and in getting enough to eat to live on, without growing any. Another feature in raising fall calves is that you can have them calve at two years of age, and so have new milkers for fall and winter use, which, ordinarily, is the time when new milkers pay the best.

And last, but by no means least, a great point in raising our stock is that the boys on our farms will take an interest in them, for the great question of to-day is, how are we going to keep our boys on the farm? We must get them interested in their work, and how can we do it better than by giving them a calf or two each year, to raise as their own, and when the calf has grown to a cow, let the father of the boy buy the cow and thus help him on his road to success as a farmer.

Dairy Notes.

Avoid the beef cow, the cheese cow, the butter cow and the milk cow all bound up in one skin.

The price of good butter is coming up; the price of poor butter will always stay down, and it should.

The better cows the patrons keep the more profitable the creamery. The interests of the creamery and the patrons are mutual.

The Michigan Agricultural college credits one cow with more than 630 pounds of butter fat for one year. That would be equal to about 750 pounds of butter.

During the past summer ten modern creamery plants have been established in Utah, and all are now in successful operation. The *Field and Farm* figures it out that these creameries are

CLAIRETTE SOAP.



ALL USING CLAIRETTE SOAP

MILLIONS DO THE SAME.

Sold everywhere. Made only by

THE N. K. FAIRBANK COMPANY,

ST. LOUIS.

now doing a business exceeding \$100,000 a month, or more than \$1,200,000 a year.

Select from among the heifers the future cow, as to continuous and persistent milking qualities.

It is always advisable to make change of feed occasionally for the cow in winter. It gives her increased appetite.

Grain your cows while the grass is young; grain your cows if the spring is wet; grain your cows if the summer is dry and the grass scarce. In short, grain them all the year round if you expect them to do their best work.

Be regular in feeding. If you feed but twice a day stick to it. Many prefer it. But if you house your cows up on stormy days in place of letting run in a stalk field, then give something to eat at noon. Above all, be regular in feeding.

When the price of butter is compared with prices of other farm products the dairyman certainly ought to find reason enough to feel thankful. The man who can get 25 cents for butter made from 15-cent corn and oats has no occasion to grumble.

The third annual meeting of the National Dairy Union will be held at Chicago, beginning Tuesday, January 21. The filled cheese question will be the principal subject to come before the convention. All dairymen that are interested should attend.

To the aged, with their poor appetite, feeble circulation, and impoverished blood, Ayer's Sarsaparilla is a boon beyond price. Its effect is to check the ravages of time, by invigorating every organ, nerve and tissue of the body. See Ayer's almanac for the new year.

VICTORY Feed Mill

Grinds Corn and Cob and all kinds of Small Grain Made in four sizes for 2, 4, 8 and 10 horse power. Send for catalogue and prices. THOS. ROBERTS, Springfield, - Ohio.

By using one of these Feed Cookers you can realize on your present crop of **Corn 75¢ per bushel.**

This justly Celebrated Feed Cooker will save any Farmer, Feeder or Dairyman Hundreds of Dollars each Year. Will pay for itself the first year it is used.

COOK YOUR CORN BEFORE FEEDING TO CATTLE OR HOGS, INCREASING ITS FATTENING QUALITIES 50 PER CENT. and make each bushel go about 34 further. It will enable you to realize 75¢ per bushel for your present crop—it will steam moldy hay or corn perfectly sweet and make dry cornstalks or straw soft and palatable. Made of steel boiler plates, with boiler tubes passing directly through the water—will do your work quicker, cheaper, and is guaranteed to be better and give better satisfaction than any other.

For illustrated circulars and prices, or catalogue of **CREAMERY AND DAIRY SUPPLIES** of every description; Boilers, and Engines; Milk Cans or Butter and Cheese making supplies address **Creamery Package Mfg. Co.** Dept. B. Kansas City, Mo.

Such ills as

SORENESS, STIFFNESS,

and the like,

ST. JACOBS OIL

WIPES OUT

Promptly and Effectually.

NO TIME TO LOSE

If you are losing valuable butter fat by inefficient separation, profit by the experience of others and get the best machine on the market.

The Improved U. S. Cream Separator.

WITH SIX YEARS RUNNING SEPARATORS, I FIND NO EQUAL TO THE U. S.

We have been using your No. 1 United States Separator for nine months, and are perfectly satisfied with its work. I run about 2,300 lbs. through an hour, and only a trace of fat is found in the skimmed milk. Repairs are a very small item compared with many other machines. The cream is very smooth and regular.

With six years of running separators I find no equal to the Improved United States Separator.

H. J. MATTHEWS,
BRUNSWICK, IND., Nov. 4, 1895. Brunswick Creamery Co.

We have the Best Separator for the Creamery.
We have the Best Separator for the Dairy.

PRICES, \$75.00 AND UP.

Made under Patents owned exclusively by us. Beware of imitating and infringing machines.

Send for Catalogues of anything for the Creamery or Dairy. Agents wanted in every town and county where we have none.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

The Family Doctor.

Conducted by HENRY W. ROBY, M. D., consulting and operating surgeon, Topeka, Kas., to whom all correspondence relating to this department should be addressed. Correspondents wishing answers and prescriptions by mail will please enclose one dollar when they write.

The Resurrectionists.

"There's a dole in Astolat," and there is war in Topeka. Last week the discovery was made that some one, in the interest of the Kansas Medical college, at Topeka, was engaged in a systematic scheme of grave robbery. It was first discovered that the body of Mrs. I. O. Van Fleet had been torn from its cements in Rochester cemetery, and then it was discovered that the body was lying in the dissecting-room of the medical college, with the hair removed and the face flayed in order to prevent recognition. The janitor of the college was arrested and members of the faculty threatened. Then other graves were inspected and found to have been rifled of their tenants. Other search warrants were sworn out and served, and two more bodies, partly dissected, were found at the college and recognized by relatives. Then mob violence was threatened; the college faculty and students spent a night of terrors in anticipation of a visit of vengeance from the mob; the militia of Topeka and Lawrence were called out by the Governor to quell the threatened riot. Then the college dean and several members of the faculty and students were arrested on the charge of grave robbery and receiving stolen bodies, and finally suits for civil damages for grossly uncivil treatment of the dead have been instituted against the faculty and students, claiming \$30,000 damages, by two of the men whose dead wives were found partially dissected in the college.

Along with all the other sources of excitement over these revelations comes a series of indignation meetings by the members of the A. O. U. W., the Santa Fe shop men and the Catholic church, with resolutions of malediction and a general boycott of the college and all its faculty. Thus the past ten days have been filled with plots revealed and plots unrevealed, with dastardly doings and fierce denunciations. Doctors who, at the dawn of December enjoyed the confidence of the populace and a lucrative practice, to-day are under bonds to answer as criminals and writhing under the sting of a public anathema. To-day the sunshine, to-morrow the storm; to-day liberty, to-morrow bonds and penalties. Thus many a chapter in the world's history is being repeated.

And why all this crime and commotion? For two reasons. First, the public demands of all medical men an ample and intimate knowledge of all the physical sciences, including anatomy and physiology, which can contribute to their skill and efficiency as physicians, and boycotts them if they attempt to practice without such knowledge; and secondly, it shuts and bars the doors to such knowledge and makes it a crime to obtain it surreptitiously. The public says to the physician: "You shall not practice in our midst without full knowledge of the human frame and its functions, and we will make you a criminal under the law if you attempt it," and then it says to him: "Have a care! If you rob our graves for bodies to dissect, we will send you to prison as a malefactor. Hands off!" And so, between command and malediction, the doctor whose bread and butter depends very much on fulfilling the requirements, must go like a wolf in the night and steal that which an enlightened public both commands and forbids. Half-way informed men say: "Why the law already provides dead bodies for dissection. See the statutes in corroboration!" And when we turn to the sacred statutes we find that we may have for anatomical study the bodies of criminals who die in hospitals and the penitentiary under sentence for crime. But just there the statute builds a Chinese wall of almost total exclusion by providing so many exceptions and contingencies that probably not one such body in the hundred can ever reach the medical class legally, and while it is permissible under the law, yet the State makes no dead criminals by public or private execution, for the colleges to use. The Governors sign no death warrants. Then we are gravely told: "Why, you must go outside for bodies to dissect," and when we look over our boundary fences we find that all our sister States have about as rigid statutes as we have, and that it is a crime to ship dead men or women from one State to another for dissection, and it is a crime to ship them from one locality to another within the State for such purpose. And again we are told: "You must close your doors and send your students to St. Louis, Chicago or New York." Suppose we did that, and then suppose we followed up the logic of that demand and sent all our law students and normal students and agricultural students and music students out of the State to be educated, how long would it be until the greatest wall of the centuries would go up from the sacred soil of Kan-

sas over the "giant outrage of all the ages?" "Ah! but you must not dissect our dead, anyway!" Then whose dead shall we dissect? Are they not all "our dead?" You say, "well, go and dissect Missouri's dead," and when we get there, Missouri says, "they are our dead." Illinois says, "they are our dead." Then what shall be done? I answer, enlarge the scope of our statutes, and make our sacred dead sacred to science as well as affection. Not by stealth, not by midnight plundering of graveyards, but by the State taking up the matter and engaging to provide all medical colleges within her borders all necessary subjects for legitimate study. Let a commission issue, and let suitable bounties be paid for willing subjects. There are enough people in any community willing and waiting to sell their bodies to science as they sell their old clothes to the ragman.

I venture the assertion that, in furtherance of the common good of humanity, there are enough old soldiers to-day in the State who would, under proper conditions, "without money and without price," offer their cast-off bodies as willingly and loyally to the service of science as they offered their living bodies to the service of the same community of public interests during the war. I am of that number myself. When I am done with my body and my old clothes, science and the ragman are both welcome to what I shall have no further use for. I am quite as willing to be dissected by the votaries of science as by worms. The only escape from the one or the other is by fire—by cremation.

If our bodies could be preserved from all the inroads of decay and resolution, then we might, with some justification, struggle to preserve them against the laws of retrogression back to the primal elements, but that we cannot do. And the inalienable right of all the living is that knowledge shall be obtained for the benefit of the living, and a portion of that necessary knowledge can only be had from the dead. So we must be reasonable and sensible in the matter and provide legal means of obtaining knowledge so there shall be no incentive to steal it for the public good.

As I am not even remotely connected with any medical college, I can speak plainly and without prejudice. We must give science its due, or cease to make demands of it.

Dr. Bull's Cough Syrup is the best in the market. A single bottle will convince you of its excellence. Try it.

Gossip About Stock.

Our field man reports a visit, last Saturday, at the Shelden & Wheeler Hereford Cattle Company's farm, near Burlingame, Kas., and says the herd is in good condition. The visitor finds a grand lot of white-faced youngsters, ten yearling bulls, forty-five bull calves, and thirty-four pure heifers coming on. Ten of the young bulls are by Ashton Boy 52058, ten by Bloom 47075, eight by August Wilton 3504 and eight by Minnie's Cherry 57888. All four of these sires are highly-bred individuals and just such breeding as every white-face cattle man desires to have. There are about sixty yearling and two-year-old bulls sired by these bulls and out of high-grade Hereford cows that are ready to go. One of the two tops in the pure-bred yearling bunch went last week for \$150. Every well-up Hereford man has some idea of the merits of the Rock Creek herd, founded by Thos. J. Higgins, and can rest assured that it has lost none of its merits since coming into the hands of the present owners, the Shelden & Wheeler Hereford Cattle Co.

Our live stock field man reports some notes from the Vernon County herd of Poland-Chinas, and, among other things, says: "Mr. J. M. Turley, the proprietor, lately held his first reduction sale and five gilts brought \$105; twelve younger ones made an average of \$16.35, and five grade pigs went for \$54.75. The offerings were those that were left after the season had closed and is a good illustration of what the breeder can do after he has sold out or on order, with those that are just a little too good for stockers and hardly up to the ambition of the modern progressive breeder's ideal of what a hog should be. The visitor finds a strong prospect for the coming year on Mr. Turley's farm, and at once becomes impressed with the idea that Mr. Turley's herd is an extra good one. Since the sale two gilts and a May boar that were held in reserve will be priced. One of the gilts is bred to the very excellent sire, Free Coin 16 to 1 14967 S., one of the best individuals in western Missouri. Three extra choice gilts, two by Black Stop 10550 S. and the other by Free Coiner 12050 S., were lately added to the herd. They came from the Tower Hill herd of Adams, at Fort Scott, Kas. A little later on about twenty fall pigs by Silver Dick, a prize-winning sire, will be ready to send out.

"BROWN'S BRONCHIAL TROCHES" are unequalled for clearing the voice. Public speakers and singers the world over use them.

SCHOOL BOOKS ~ LAW BOOKS

The Old Kansas Publishing House of CRANE & CO., TOPEKA, KANSAS,

Have added to their publications a line of School Text-Books, and are supplying

Excelsior First Reader.....	.15	Government in the United States, with Kansas addendum.....	.50
Excelsior Second Reader.....	.25	History of Kansas (Hazelrigg)...	1.00
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Excelsior Fourth Reader.....	.45	Arithmetic Reviewed (M. A. Bailey).....	.25
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Other text-books in press and in course of preparation.

Will give free exchange where Counties or Districts make five-year contract.

In point of mechanical and educational excellence, these books are equal in every respect to the best of the old line, high-priced books, and superior to them in many respects.

We will supply school officers with sample books for examination, wherever adoption is liable to result therefrom.

Compare the above prices with what you have been paying!

Send for our law book, school or general catalogue if interested.

Topping's Stock Farm.

Among others engaged in breeding live stock in Kansas that are desirous of extending acquaintance with the readers of the KANSAS FARMER, is Mr. George Topping, of Cedar Point, Chase county, Kansas, whose farm of 500 acres lies eight miles south of Cedar Grove, a station on the main line of the "Santa Fe Route." On the farm the visitor finds carriage and roadster horses, registered English Berkshire and Poland-China swine, Mammoth Bronze turkeys and Single-combed Brown Leghorns.

The Berkshire herd was founded by the best of English and Gentry-bred blood, in 1890, and recruited each year since by the best that money could buy. It now consists of about 100 head, all ages. The three-year-old Model King 37532 did service last year and a major part of the youngsters now on the farm are by him. His sire was Director 27539 and his dam Stumpy Lady IV. 25117. He is a smooth, well-turned individual, with strong Berkshire points, stands on short legs and is of the mellow kind that matures much more early than the old-fashioned Berkshire. The youngsters now coming are by two litter brothers sired by a son of Champion 29761, he by Enterprise 26461, an imported English animal. A major portion of the older harem queens and twelve daughters of Model King have been nicked to these two highly-bred boars. The breeding is proving a great success, as the youngsters are smooth, good, broad backs and are proving themselves early maturers—just the type that every progressive hog-raiser seeks to have.

The Poland division consists mainly of foundation stock headed by Eureka, a son of Wren's Medium 12387 S., that was bred by D. C. Miller, of South Dakota, the man that bred and sold Woodburn Medium for \$1,000 cash. The young fellow is sure to attract the attention of the visitor, and having been nicked with some extra fine sows, a pig crop of great strength and desirability is in expectancy. Summer Swallow, a sow by Sensation 25897 S. and out of Black Swallow, has a fine litter by Wren's Medium 12387 S. Another good one is Cherry Blossom by Wren's Medium and out of Queen of Edwards 30280 S. Close up in her company is a daughter of Blackface 27800, a Lall-bred animal, that was sired by the noted U. S. Revenue 4293 S.

Mrs. Topping takes great pride in raising the best of Mammoth Bronze turkeys and Single-combed Brown Leghorns. Turkey eggs are sent out for \$2 per setting of fifteen and the Leghorn eggs at \$1 per setting of fifteen. Consult their "ad." elsewhere in this issue and if wanting either swine or poultry write them.

Mower Bros., Lost Springs, Kas., said: "The Berkshires we got of you last year did so well we want some more." Result, more sales to them. Don't you want some? Will sell cheap and guarantee satisfaction. Write O. P. UPDEGRAFF, Topeka, Kas.

A NEW BOOK FREE

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

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

EMERY, BIRD, THAYER & CO.
Successors to

Bullene, Moore, Emery & Co.,
KANSAS CITY, MO.

RHEUMATISM.

We positively guarantee a cure of the worst cases of rheumatism by your taking a course of Kidneykura, which is the safest and most certain cure known for rheumatism and kidney diseases. Sold by druggists or sent by mail. Price \$1.

Kidneykura.

Try it and be convinced. A positive cure or you certainly don't have to pay for it. Send address for DR. KAY'S Hand Book of Valuable Receipts and a Treatise on Diseases, the most valuable free booklet published. Said to be worth \$5.

DR. B. J. KAY MEDICAL CO.,
(Western office)
620 Sixteenth St., Omaha, Neb.



Sold Every-Where

SECTIONAL CUT OF

CORK FACED COLLAR

showing exact amount and arrangement of GRANULATED CORK FACING.

This collar will not only save your horses' shoulders, but being hand-made and hand-stuffed will last much longer than any machine made collar.

Cork-Faced Collar Co. Lincoln, Ills.

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.

PIGS DYING.—I have lost some pigs that first began to show sore eyes and shiver as if cold. They have a slight cough and breathe hard, with thumping in their sides, then soon die. I have lost twenty-nine out of forty-four. I lost fifty-four last spring the same way. What is the cause?

Harrold, Tex. C. A. R.

Answer.—Your pigs have symptoms of cholera. Call your State Veterinarian.

SPLIT EAR.—(1) I have a colt that split his ear. Will it heal if I stitch it together? (2) Is there anything about a stallion that is injurious to a gelding if worked or stabled with him?

MAN-WITHOUT-A-NAME.

Answer.—(1) Yes, if you stitch it properly. (2) No, not unless the stallion gets loose and fights the gelding.

Union Pacific Route.

What you want is the through car service offered between Denver and Chicago via the Union Pacific and Chicago & Alton railroads, which is unexcelled by any other line. Magnificent Pullman sleepers, dining cars and chair cars, run through daily without change, Denver to Chicago via Kansas City.

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the opportunity to visit dear friends during the holidays. The NICKEL PLATE ROAD, always catering to the wants of the traveling public, the popular low rate line along the South shore of Lake Erie, will sell tickets at greatly reduced rates on December 24, 25, 31 and January 1, good returning until January 2. For further particulars apply to J. Y. Calahan, General Agent, 111 Adams St., Chicago, Ill. 115

The Solid Through Trains

of the NICKEL PLATE ROAD, equipped with the most modern constructed day coaches and luxurious sleeping and dining cars, illuminated throughout with the famous Pintsch gas lights, and colored porters in charge of day coaches, are some of the features of this popular line that are being recognized by travelers seeking the lowest rates and fast time. J. Y. Calahan, General Agent, 111 Adams St., Chicago, Ill. 116

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DR. B. J. KENDALL CO.

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For Sale by all Druggists, or address
Dr. B. J. KENDALL COMPANY,
ENOSBURGH FALLS, VT.

When you write mention Kansas Farmer.

MARKET REPORTS.

Kansas City Live Stock.

KANSAS CITY, Dec. 23.—Cattle—Receipts since Saturday, 5,746; calves, 113; shipped Saturday, 831 cattle, 63 calves. The market was strong to 10c higher and active. The following are representative sales:

SHIPPING AND DRESSED BEEF STEERS.			
No.	Ave. Price.	No.	Ave. Price.
40.....	1,433 \$3.85	21.....	1,333 \$3.85
41.....	1,417 3.80	1.....	1,500 3.75
42.....	1,417 3.80	1.....	1,490 3.60
43.....	1,384 3.62 1/2	20.....	1,093 3.55
44.....	1,188 3.55	88.....	1,284 3.50
45.....	1,149 3.40	1.....	1,260 3.40
46.....	1,170 3.40	2.....	1,310 3.25
47.....	1,200 3.15	5.....	1,036 3.15

TEXAS AND INDIAN STEERS.

45 Ind.....	1,159 \$3.55	24 Ind.....	1,218 \$3.45
49 stk.....	1,013 3.30	12.....	1,137 3.15
25.....	1,017 2.75		

NEW MEXICO COWS.

16.....	598 \$2.35	60.....	759 \$2.00
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ARKANSAS STEERS.

20.....	1,077 \$3.15	1.....	660 \$2.25
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OKLAHOMA STEERS.

2.....	865 \$2.30		
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COLORADO COWS.

14.....	913 \$2.25		
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SOUTHWESTERN STEERS.

29.....	939 \$3.25		
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SOUTHWESTERN COWS.

25.....	896 \$2.45		
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PANHANDLE STEERS.

28 stk.....	870 \$2.60		
-------------	------------	--	--

PANHANDLE COWS.

1.....	880 \$1.25		
--------	------------	--	--

COWS AND HEIFERS.

1.....	1,410 \$3.10	6.....	1,015 \$3.00
--------	--------------	--------	--------------

3.....	933 2.85	11.....	790 2.75
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2.....	800 2.75	2.....	655 2.65
--------	----------	--------	----------

37.....	911 2.55	6.....	1,238 2.55
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1.....	1,100 2.50	1.....	730 2.50
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4.....	1,102 2.45	24.....	798 2.45
--------	------------	---------	----------

1.....	920 2.40	2.....	535 2.35
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6.....	1,226 2.25	1.....	870 2.20
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3.....	1,146 2.15	3.....	1,040 2.10
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2.....	1,050 1.85	3.....	806 1.90
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STOCKERS AND FEEDERS.

52.....	1,094 \$3.45	52.....	1,294 \$3.40
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5.....	732 3.30	8.....	643 3.25
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2.....	925 3.10	7 la.....	702 3.05
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1.....	770 2.85	2.....	1,140 2.75
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Hogs—Receipts since Saturday, 3,644; shipped since Saturday, none. The market opened 5c higher and closed with an easier feeling. The following are representative sales:

69.....	246 \$3.35	25.....	255 \$3.35	63.....	246 \$3.35
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62.....	227 3.35	59.....	250 3.35	28.....	252 3.35
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135.....	282 3.35	69.....	300 3.35	69.....	300 3.35
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81.....	181 3.32 1/2	50.....	261 3.32 1/2	79.....	204 3.32 1/2
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61.....	283 3.32 1/2	53.....	297 3.32 1/2	90.....	214 3.32 1/2
---------	--------------	---------	--------------	---------	--------------

68.....	264 3.32 1/2	1.....	700 3.32 1/2	46.....	254 3.32 1/2
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74.....	207 3.30	74.....	191 3.30	76.....	232 3.30
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21.....	252 3.30	19.....	161 3.30	43.....	229 3.30
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83.....	184 3.30	24.....	238 3.30	43.....	234 3.30
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115.....	224 3.30	61.....	270 3.30	34.....	240 3.30
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1.....	203 3.30	77.....	310 3.30	47.....	230 3.30
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67.....	210 3.30	52.....	288 3.27 1/2	60.....	231 3.27 1/2
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38.....	241 3.25	75.....	203 3.25	49.....	182 3.20
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6.....	421 3.20	14.....	113 3.05	6.....	133 3.00
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72.....	190 3.22 1/2	19.....	143 2.90	28.....	110 2.90
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12.....	145 2.95	1.....	430 2.80	1.....	80 2.75
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14.....	135 2.80	16.....	123 2.80	1.....	150 2.50
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26.....	118 2.75	38.....	97 2.70		
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Sheep—Receipts since Saturday, 2,327; shipped Saturday, none. The market was 10c higher, and active. The following are representative sales:

3 lambs.....	100 \$4.25	242.....	99 \$2.90
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3.....	143 2.85	210.....	98 2.85
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Horses—Receipts since Saturday, 314; shipped Saturday, 292. There was a fairly good run of horses to-day, and while there was little demand except from private sources, the prices were generally steady. The receipts are increasing every day over a year ago, and there seems to be very little trouble in moving them.

Chicago Live Stock.

CHICAGO, Dec. 23.—Cattle—Receipts, 11,000; market steady to 10c higher; fair to best beefs, \$3.40@4.75; stockers and feeders, \$2.40@3.60; mixed cows and bulls, \$1.35@3.60; Texas steers, \$2.70@3.50.

Hogs—Receipts, 31,000; market generally steady, closing weak; light, \$3.25@3.45; rough packing, \$3.25@3.30; mixed and butchers, \$3.25@3.50; heavy packing and shipping, \$3.35@3.45; pigs, \$2.40@3.40.

Sheep—Receipts, 10,000; market steady; native, \$2.00@3.75; western, \$2.60@3.25; Texas, \$2.00@2.75; lambs, \$3.00@4.40.

St. Louis Live Stock.

ST. LOUIS, Dec. 23.—Cattle—Receipts, 2,500; market strong native steers, \$3.25@5.00; Texas steers, \$2.60@3.75.

Hogs—Receipts, 3,570; market steady; heavy, \$3.20@3.40; mixed, \$2.90@3.40; light, \$3.00@3.30.

Sheep—Receipts, 1,000; market firm.

Chicago Grain and Provisions.

Dec. 23.	Opened	High'st	Low'st	Closing
Wh't—Dec.....	55 1/2	55 3/4	54	54 1/2
Jan.....	55	55	55	55
May.....	58	58 1/4	57 1/4	58
Corn—Dec.....	25 1/2	25 3/4	25 1/4	25 1/2
Jan.....	25 1/2	25 3/4	25 1/4	25 1/2
May.....	28 1/2	28 3/4	28	28 1/2
Oats—Dec.....	16 1/2	16 3/4	16 1/4	16 1/2
Jan.....	17 1/4	17 3/4	17 1/4	17 1/2
May.....	19 1/2	19 3/4	19	19 1/2
Pork—Dec.....	7 65	7 75	7 65	7 65
Jan.....	8 47 1/2	8 52 1/2	8 47 1/2	8 52 1/2
May.....	8 85	8 87 1/2	8 70	8 87 1/2
Lard—Dec.....	5 20	5 20	5 20	5 20
Jan.....	5 25	5 25	5 25	5 25
May.....	5 47 1/2	5 47 1/2	5 43	5 47 1/2
Ribs—Dec.....	4 22 1/2	4 22 1/2	4 22 1/2	4 22 1/2
Jan.....	4 20	4 22 1/2	4 20	4 22 1/2
May.....	4 45	4 47 1/2	4 42 1/2	4 47 1/2

Kansas City Grain.

KANSAS CITY, Dec. 23.—Trade in wheat was almost at a standstill to-day, after a few early sales on mill orders at steady prices. Some elevator firms were not buying at all and others were bidding much lower prices. Some later sales were 1@2c lower, and a good many samples were not sold at all, but carried over. Receipts of wheat to-day, 110 cars; a year ago, 23 cars.

Sales were as follows, track, Kansas City: Hard, No. 2, 3 cars early 55c, 2 cars 54 1/2c, 2 cars 54c, 3 cars 53c, 2 cars 52c; No. 3, 2 cars 50c, 2 cars 49c, 2 cars 48c, 2 cars 45c, 1 car 42c; No. 4, 1 car 41c, 2 cars 40c, 2 cars 39c, 3 cars 38c, 2 cars 35c; rejected, nominally 30@35c. Soft, No. 2 red, nominally 65@66c; No. 3 red, 1 car 61c, 2 cars 60c, 1 car 59c, 3 cars 50c; No. 4 red, 3 cars 10c; rejected, 3 cars 4 1/2c. Spring, No. 2, 2 cars very

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choice 54 1/2c, 3 cars 54c, 5 cars 53 1/2c, 3 cars 53c; No. 3, 3 cars choice 52c, 2 cars 51c, 2 cars 50c, 1 car 49c, 1 car 48c; rejected, 1 car 47c; white, No. 3, 1 car poor 47c, 1 car poor 46c.

Corn was pressed for sale and was about 1/4c lower, the bottom sales being at the close of the market. There was less trade in futures. Receipts of corn to-day, 152 cars; a year ago, 74 cars.

Sales by sample on track, Kansas City: No. 2 mixed, 13 cars 23 1/2c, 27 cars 22 1/2c; December, 5,000 bu. 22 1/2c, 15,000 bu. 22 1/2c; January, 20,000 bu. 21 1/2c, 15,000 bu. 21 1/2c; No. 3 mixed, 2 cars 21 1/2c, No. 4 mixed, nominally 21c; white same as mixed.

Oats sold slowly at about the price ruling Saturday. Offerings were smaller. Receipts of oats to-day, 9 cars; a year ago, 19 cars.

Sales by sample on track, Kansas City: No. 2 mixed, 1 car 15 1/4c; No. 3, nominally 14c; No. 4, nominally 13@13 1/2c; no grade, nominally 13c; No. 2 white, 5 cars 16 1/2c; No. 3 white, 2 cars 16c, 1 car 15 1/2c.

St. Louis Grain.

ST. LOUIS, Dec. 23.—Receipts, wheat, 29,250 bu.; last year, closed; corn, 42,000 bu.; oats, 89,600 bu.; shipments, wheat, 13,440 bu.; corn, 61,288 bu.; oats, 39,000 bu. Closing prices: Wheat—Cash, 62 1/2c bid; December, 53 1/2c; May, 58 1/2c. Corn—Cash, 24c; December, 24c; January, 24c; May, 25c. Oats—Cash, 16c; December, 16c; May, 19 1/4c.

Kansas City Produce.

KANSAS CITY, Dec. 23.—Butter—Creamery, separator, 23c; firsts, 19@20c; dairy, fancy, 14@15c; store packed, fresh, 10@12c; off grades, 8c; country roll, fancy, 13@15c; choice, 10@12c.

Eggs—Strictly fresh candled stock, 19 1/2c per doz.; cold storage, 16c.

Poultry—Hens, 4 1/2@5c; springs, 6 1/2@6c; roosters, 15c; young, 17 1/2c; turkeys, 8 1/2@8c; ducks, 7 1/2@8c; geese, fat, 60c; pigeons, 60c per doz.

Fruits—Apples—Fancy, \$2.25@2.50 per bbl.; choice, \$1.75@2.00; common to good, \$1.00@1.50 per bbl. Cranberries, \$3.25@3.50 per bbl.

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POULTRY HOUSE PLAN.

FIG. 1

FIG. 2

Y Y Y Y

A									
RH	S	S	RH	RH	S	S			
0			0	0			0		
W			W	W			W		

Any carpenter can build this house.

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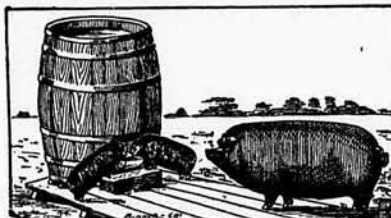
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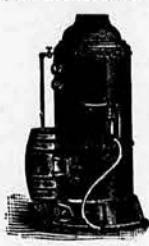
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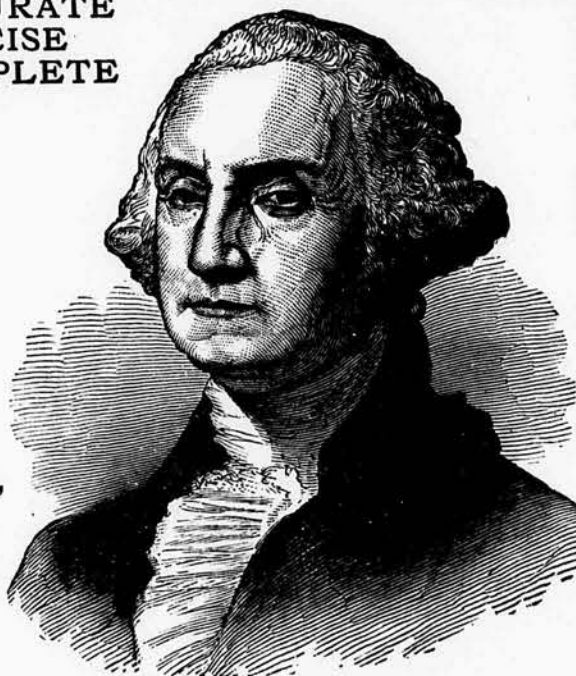
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	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts, 1894.....	1,772,545	2,547,077	589,555	44,237	107,494
Slaughtered in Kansas City.....	859,948	2,060,784	387,570		
Sold to feeders.....	308,181	11,496	69,816		
Sold to shippers.....	409,965	468,616	45,730		
Total sold in Kansas City, 1894.....	1,677,792	2,530,896	503,116	28,903	

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