



## The Stock Interest.

### OUR CATTLE INDUSTRY AND ITS FUTURE.

An address made before the Kansas State Board of Agriculture, at Topeka, January 10, 1896, by L. A. Allen, of Kansas City, Mo.

(Continued from last week.)

My observation has been, for the last ten years, and for that matter for the last twenty years, that the average price for 1,200 to 1,500-pound beef steers in the first six months of the year has been from 4½ to 5 cents per pound, and for the last six months of the year has been from 4 to 4½ cents per pound. I may not be correct in the exact average price, however it will do to illustrate by which to govern the future. If cattle feeders generally would base their future operations somewhat on this idea of results, I do not believe they would have cause to seriously complain of the prices they would have to sell their cattle at, when fed out and fattened. It is no sign that if fat beef cattle sold the first half of 1895 at from 5 to 6 cents per pound, or that in the last six months of 1895 the same kind of cattle sold for from 3½ to 4½ cents per pound, that the same will be the result a year hence. We are too apt to govern our future transactions by surrounding conditions and theories advanced at the time of the undertaking. For instance, when a shipper takes his cattle to market, and the prices realized are extra low, he is told by the "knowing" ones and led to believe that the cattle market generally has gone to the bowwows. When, on the other hand, he goes to market and realizes a high and very profitable figure, he is then told by these same "knowing" ones that there is a big shortage in cattle, and that they are bound to sell higher, and that there are no cattle in the country, and the quicker he gets hold of some the better off he will be. The uninitiated and inexperienced man on a bad market will do nothing for the future, while on a good market he will load himself up with high-priced feeders with disastrous results; but the old experienced handler will wink his eye and say: "Boys, I have been there before. I will base my future transactions, not on the extreme low or high prices that I have just realized for my fat cattle, but on the average of the results of my sales in the last ten years." The cattle business is not one to jump into when they are selling at much above the average for past years, nor is it a business for farmers to keep out of when they are selling below the average. A farmer or ranchman, when once he makes up his mind to go into the cattle business, should stick to it, study it in all its details, take counsel from those who have made a life study of the business, and base their future operations accordingly. For the past twenty or thirty years my observation has been that the most money made in cattle has been in their growth. The full-feeding and preparing cattle for slaughter should be with a great majority of farmers a secondary consideration. I firmly believe, that had the farmers of the West, and Kansas in particular, commenced ten or fifteen years ago with a little bunch of stock cattle, gradually increasing their numbers, and given them proper care and attention, that there would not have been so much said about farm mortgages as has been in the last few years. I admit that at times there has been more profit in buying big cattle and full-feeding them, but to take a period of ten or more years, the average profits to those in the stock cattle business have been greater than to those that jump in and out in the full-feeding of big steers. Raising and growing cattle is one thing, and full-feeding is another. There are plenty of experienced cattle feeders, with ample capital and credit, who have given years of time to the full-feeding of cattle and have made a study of fattening cattle at the least cost in the quickest time, that have made a success. The full-feeding of cattle and preparing them for market is a trade or profession, as much so as that of the merchant, mechanic, doctor or lawyer. Scientific cattle-feeding is coming more

and more to be a matter of necessity every year, brought about by competition in feeding cattle in different parts of the country, and by the variety and kinds of feed used. The old idea that when a farmer had plenty of corn, a feed lot by the branch or a pond, and a bunch of cattle regardless of quality, was, and is yet, thought by many to be all that is necessary to commence full-feeding. The new kinds of feed introduced in the last few years have almost revolutionized the old method of full-feeding cattle. I refer particularly to cottonseed meal, oil cake and other mixtures of feed that were not thought of years ago. Formerly it took from five to eight months to fully fatten a three or four-year-old steer on corn. To do so now might prove profitable and it might not, but to do so a good strong price, above the average, must be realized, and that with feed at the minimum prices. Scientific cattle-feeding as now practiced by many, fattens cattle good enough for any market, in from three to four months, and especially so when the cattle intended to be fed have been properly prepared to feed, as they should be in all cases. Cattle intended to be full-fed should be kept growing and improving in flesh from calves up and never allowed to shrink in the least at any time. Scientific feeding consists in realizing the greatest increase in the weight of the animal at the least cost of so doing. Such fat-producing foods as can be easily digested and give the greatest warmth fatten quickest. I shall not attempt to go into full details as to the best mode of preparing feed for cattle, but will say that crushed corn, or meal with a little bran, fed regularly twice a day in such quantities as the cattle will just clean up will fatten fast. While there are scarcely any fattening qualities in bran, it ferments in the stomachs of the cattle and aids digestion. It is not the amount that cattle eat that fattens them quickest, but it is what they digest easily and assimilate with the blood. A mixture of oil cake, cottonseed meal, or ground oats with corn, makes excellent feed for cattle when properly fed, and fattens quickly. Good, pure water is very essential, in fact, it is half the process. When it is possible to do so, water to be given to cattle should be as near the temperature of the blood as can be. Nearly 75 per cent. of the animal is water; therefore, it can be seen the greatest essential is plenty of pure, fresh water. For feeding cattle, and, for that matter, any other kind of stock, if I had to take one or the other, I would rather have plenty of good water for cattle, with short feed, than to have plenty of feed and short water. This water question has hurt more cattle owners than any other one thing.

The first thing to be considered in going into the cattle-raising or feeding business, whether on farm or ranch, is, what is the amount and quality of the water to be used? Another and very essential thing for the successful handling of cattle, especially in the winter, is good shelter. Cattle, to do well in winter, should be kept comfortably warm, suitable to their natures. Cattle will shrink more in one cold rain or snow storm than they will gain back in a week or ten days of good weather, after causing enough loss in labor, feed and time to have paid expense of furnishing shelter for the entire winter. In this climate it is not essential to provide expensive barns, as it is further north and east. Most anything will do that will protect the cattle from the bad weather.

Coming back to the stock cattle business, the old saying that "If anything is worth doing at all, it is worth doing well," very properly applies to those engaged in the breeding, raising and growing of cattle, to make it successful. In short, the scrub must go. It does not cost any more to raise and feed a good animal than it does a bad one, and the results are much more satisfactory. I believe our American breeders have brought up the various beef-producing breeds to a higher standard of excellence than the Europeans ever did. The farmer or ranchman, at reasonable prices, can secure from these breeders, strains of blood

that can be crossed with the ordinary stock cows of the country that will produce beef good enough for the most fastidious tastes. With the advent of handling cattle in the form of dressed beef with cold storage and in refrigerator cars and ships, the value of the big, 1,500-pound steer began to wane. The well-fatted, nice, smooth, tidy 1,100-pound to 1,300-pound steer finds a quicker market at better proportionate prices than does the heavier animal. It is only a matter of time, when the Western raiser of cattle will find it more profitable to dispose of his surplus yearlings and two-year-olds (unless he is especially situated to develop to maturity) to the farmers, who are better prepared to quickly develop the young animals for beef. Many of the Texas and Western raisers have adopted this method of disposing of their surplus, and have found that the risk of loss is less, with proportionate profits greater; besides their ranges are relieved and their numbers kept within the capacity of their ranges and pastures. The farmer can afford to pay proportionately more for a young animal than he can for an older one, for, as before stated, the growth to the farmer, at a light expense, is where he makes the most of his profits. During my experience of handling cattle thirty years in the West, I have never known of a single failure in the cattle business, where the owners confined themselves strictly to the handling of mixed stock cattle, or steer calves, or yearling or two-year-old steers, where they properly invested their own capital, or if they borrowed a small amount proportionately to their own, and then had a good place to keep the cattle where they could prevent loss, and then economically manage the business. It is in the cattle business as it is in other branches of trade, many undertake too much for the amount of capital they have. The complaints of the business, as not being profitable, come more from this class of dealers than any others. What is known as "cattle paper," that is, notes secured by mortgage on cattle, at a reasonable value of the cattle, is now regarded by financiers and money lenders as being first-class paper, because in times of stringency it is more easily realized on than most any other class of commercial paper. Cattle always have a cash market value, and when bought at reasonable prices and properly cared for, their value increases. In other words, the principal increases in value sufficient to more than pay interest and other carrying charges. It is said there are some defects in the chattel mortgage laws. If there are, every honest cattle dealer should rise as one man and see that such laws are made that no one can escape the full penalty if they are violated. An honest man who borrows money cares not how stringent mortgage laws are made, for he intends to pay his obligations anyway; but for the good of his business, and the obtaining of money at reasonable rates of interest, he should assist in the formation of laws that would absolutely secure the lender. The great majority aim to do the proper thing at the appointed time. Unpaid cattle paper is monopolized by a few who try to evade their obligations through the technicality of defective laws. When it is done it is heralded about and brings discredit more or less upon the business.

Kansas, being in the Missouri valley, occupies an enviable position. It lies directly between the best market in the country and the cattle-raising grounds of the plains and mountain valleys. In consequence, many thousands of cattle from the West and South find pasturage and feed in the State, thereby utilizing the surplus grasses and feed, to the great benefit of its people, affording them opportunity to secure cattle for their own purpose at reasonable figures.

The climate of Kansas is excellent, the kind of grasses grown in the State and the varieties of feed that can be produced for cattle are second to no State. Among the kinds of feed which can be raised by every farmer are Indian corn, cane or sorghum, Kaffir corn, millet and alfalfa. In average seasons, perhaps, corn would be the best to raise in the eastern third of the State, with

some of the other varieties of feed mixed in. The farmers in the middle and western part of the State will find it on an average most profitable to plant largely the other varieties of cattle feed, and handle cows or young cattle. Let them stick to them through thick and thin, and I will guarantee the results to be satisfactory.

In the following I may somewhat digress from the subject, but believing it a small matter of information to many engaged in the cattle industry, I have taken the privilege of injecting it into my address, and hope I may be pardoned for so doing.

The people of the Missouri valley, and Kansas in particular, are fortunately situated, in having so close to them, within the borders of their State, one of the best live stock markets in the United States, if not in the world; one that has had a steady growth from its beginning in 1871 up to the present time. The total number of cattle received at Kansas City in 1871 was 120,827 head; in 1895 it was 1,613,454 head, and the total for the twenty-five years was 16,846,535 head, exclusive of calves, since 1870. Including the 490,786 calves received since 1870, there was a grand total of 17,347,321 head.

The Kansas City Live Stock Exchange is an organization composed of about 300 members, whose business center is at the Kansas City stock yards. Its rules and by-laws are to protect its members and the live stock trade in general. With the volume of business done at Kansas City, it could not be done right without strict rules, and then firmly enforced. It established a uniform rate of charges for handling stock, and a system of proper dockage. Its rules protect the farmer and shipper and compels honest and fair dealing. Heavy penalties are imposed on any member that violates its rules. All who do business for the public at the stock yards must have a membership in the exchange.

The Kansas City Stock Yards Company have steadily kept pace with the wants of the business, making all necessary improvements and additions demanded by the trade. At the present time their investments amount to \$7,500,000, with the most commodious live stock exchange building and best equipped stock yards in the United States.

The large packing-houses at Kansas City have increased their slaughtering capacity from year to year, until they are now able to handle almost the entire number of fat cattle, hogs and sheep offered for sale on the Kansas City market.

Live stock commission merchants in their business relations to the farmers and cattle producers should be of the most friendly character. Agents are necessary in all the commercial marts of the world. In no other branch of trade is the agent more a matter of necessity than he is to the producer and shipper of cattle. A good commission man should be honorable, industrious, financially responsible, a thorough judge of his business gained by long years of active experience in the live stock trade. He should be apt and quick to discover the value of the stock he is handling, and sell or buy any kind of stock on its merits. When the shipper and producer select such a man, firm or company in the market to do his business, he should not be persuaded to make a change without good reasons. When a farmer or shipper lets a commission firm know that he is going to do his business regularly with them, they will take an interest in doing his business, give him good service and good advice, and keep him well posted. The cattle shipper that jumps about from one commission house to another is seldom pleased, and the commission man does not feel the interest in such shipper's business that he otherwise would. The old saying, "When you get a good thing hold it," very properly applies to the countryman after he selects a good commission company in the market to do his business with.

The live stock commission man's business is by no means an easy one. He has to live in the city on heavy expense, he has to have an office in the Exchange, he has to keep several assist-

ants, and he has to keep well posted on the market value of different kinds of stock, and hold himself in readiness to do his customer's business properly at all times, hot or cold, rain or shine. To succeed, he must have an extensive acquaintance and liberal patronage, much more than one not familiar with the details of the business would think; besides, the commission man has to be financially responsible to his customer for the value of the stock he sells, as well as guarantee the title to the purchaser. The agent represents his principal, and the principal should protect his agent.

For the betterment of agriculture, and the live stock industry in particular, our national government has wisely organized the Bureau of Animal Industry, which has been of great benefit to the people in establishing a system of inspection of all cattle and meats intended to be consumed, and the adopting and maintaining of quarantine lines against Southern cattle that would be liable to give Texas fever. The organization of State Boards of Agriculture, of which Kansas has no superior, has done more for the good of agriculture and those engaged in the cattle industry than all other organizations.

## Agricultural Matters.

### Is Alfalfa a Failure on Uplands?

EDITOR KANSAS FARMER:—It has been fully demonstrated that alfalfa on bottom lands is a pronounced success in the western half of Kansas. When alfalfa on uplands is not able to withstand the crucial test of dry seasons for successive years, it is said to be a failure. If, from any cause, it ceases to be a profitable crop after the third or fourth season, it is pronounced a failure. But why? Red clover in the East is not considered a failure because after the second season it is plowed up.

Farmers in the Eastern States grow red clover as one of a rotation of crops, first, because it is a valuable feed, both as hay and pasture. Second, because it is a valuable fertilizer. Its value as a fertilizer is the more important because timothy and other grasses are equally valuable as feed, but clover, in addition to its feeding value, is endowed with the faculty of extracting nitrogen from the air and depositing it in the soil. Alfalfa, being also a member of the clover family, possesses in a high degree the same faculty, and is therefore a fertilizer; that is, it gives to more than it takes from the soil, and therefore leaves the soil richer because it had lived in it.

In the function of taking nitrogen from the air and storing it in the soil, and for other reasons, alfalfa, it is claimed, is a more valuable fertilizer than red clover. Its roots are larger and they penetrate the subsoil deeper, and when they are cut with the plow and decay the perforations resulting permit the air and water to descend more deeply into the subsoil and bring up from below and utilize in plant growth the food elements stored there.

While in Colorado, a few years ago, I learned that in the best farming districts alfalfa was plowed up every third or fourth year because of its high value as a fertilizer (not because it killed out) and the ground planted to some other crop.

Farmers in Kansas are beginning to "catch on." A large alfalfa-grower in Osborne county informed me, a short time ago, that a portion of his alfalfa on upland had killed out. He plowed it up and planted to sorghum. On the ground thus enriched the yield, he said, was one-third larger than on ground not so enriched.

From these well-established facts, we reach the conclusion that alfalfa is absolutely a substitute for red clover in central and western Kansas, and that it is to this plant we must look for the means of restoring fertility to our soil lost by successive cropping. With carefully-prepared ground the plant will yield good paying crops on uplands in central Kansas for as much as three or four years, after which, if, by reason of dying out, it is plowed up, it is



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no more a failure than is red clover in Eastern States, which is plowed up usually after the second year, because it ceases to be a profitable crop.

Alfalfa seed sells at from \$3 to \$4 per bushel, and since from ten to fifteen pounds per acre is sufficient, it costs no more to reseed alfalfa than red clover. The only increased expense is in the preparation of the soil.

M. MOHLER.

### The Quarter Section Farm Best.

EDITOR KANSAS FARMER:—I read Mr. Branch's article on the land question, but feel satisfied, from what I have seen of Kansas, that he is mistaken in some of his observations, or rather deductions from observations. If we look at the condition of English agriculture we can very easily see that, had the holding remained in the hands of the people in small holdings, the land would not be lying idle for want of paying to farm it. The bonanza farmer undoubtedly can use heavier machinery, and probably more, but the using of expensive machinery upon his large farm does in no wise decide that it is advantageous to the drowning out of small farmers. My deductions from observations are that the farmer who has a quarter section and sticks to it,

paying close attention to his farm, using such machinery as he can economically, is the happy farmer, whose lot may be envied by those whom he calls bonanza farmers. His happiness comes to him from the fact that he is making a comfortable living, while many of those who have been trying extensive farming have been sinking money yearly. True, land has been going into the hands of syndicates, trusts and non-residents at a lively rate for several years, but I doubt whether the author of that article can point to a single tract of land gone into such hands where the purchaser had not rather receive the amount he was interested in before he became possessor, and would take that amount to-day in return for his land.

I would not, to-day, if compelled to cultivate personally for ten years, take a half section of the best land in our county as a gift, and we have good land, while if I was able to I would pay a fair price for a quarter. There are many reasons why so many holdings have gone into the hands of syndicates, trusts, etc., but nowhere can it be shown that the desire was on the trust's side to gobble up lands, and if those syndicates ever expect to realize interest on half of

what their holdings cost them in dollars and cents, it will be by again disposing of them to the quarter-section style of farmers.

I would like to have Alex. Richter explain why a poor man should put irrigation pipes twenty-four to thirty-two feet apart, and a man with plenty of means or "gold coin" eight feet. Does he mean that the twenty-four-foot or thirty-two-foot give the best *pro rata* result, or that providence assists only the poor, and that the rich must lay pipe closer for same result? I would like to have him explain, as any one engaging in that line can't afford to do less than what will give best results.

J. D. RANCK.

Hazelton, Kas., February 6, 1896.

### Get a Home.

EDITOR KANSAS FARMER:—Mr. P. C. Branch, of Sterling, Kas., dated January 27, writes a very good article on the land question, and I am glad to see these questions brought before the minds of the people so they may seek out some stay to the impending evil. He points to some matters which are very true, and still I think that many farmers could own their own farms if they wished to do so. But while there is land that can be bought cheap, and

more that can be rented cheap, for that very reason they will spend their income in fine carriages and their other accompaniments, which takes all the loose cash of the farmers of to-day, rather than buy a place and economize in these expenses I have hinted at and try to pay on a place what they can save from their expenses. I know many a man who will say that he cannot save a dollar to pay on a home, that will spend \$50 for tobacco, which makes him a nuisance and his home a smoke-house or a spittoon. Then 25 or 50 cents a week for coffee and sugar, which both impoverish the blood and shorten his life, while he has good, pure water to drink. Now see, \$50 from tobacco and \$13 or \$26 from coffee alone would make \$63 if the lesser quantity, \$76 if the greater. Add this amount to what he annually pays for rent, and see how long before he would have a small farm paid for. Again, many a man pays more for rent of a farm than the interest and a fine payment on the principal of what the farm cost each year, and still would rather rent than buy and put the improvements he makes on rented land on a place of his own. I know a man who owns nearly 5,000 acres here in Kansas that hired the money in the Eastern States to buy with at 3 per cent. interest, hired the land broken out, and the second year I heard him say he had made enough off the two crops to pay all outlays (but the principal) and the interest on full amount paid, and had also cleared 3 per cent. on the investment. Now, if a man can do that just to make money, what ought a man to do to make a home? And many a man who has a home, for some idea which he gets into his head, will go and mortgage his home, thinking he can pay it off in a year or so at most, and then goes on living just as fast as though there were no mortgage to pay off. Well, the consequence is, nine times out of ten, that the mortgage takes the place and he loses his home and becomes either a renter or a camper tramp. Now, I advise every man to get a home, if it is no more than an acre, where he can put what he makes or saves. A. J. BENNETT, SR.  
Anness, Kas.

## Irrigation.

### RETURN OR SEEPAGE WATER.

By Prof. L. G. Carpenter, of Colorado Agricultural College, in *Arid America*.

One of the many questions pertaining to irrigation is the effect which irrigation has upon the streams and lands in the irrigated sections. It is interesting scientifically and it is valuable practically. The area of our arable land so far exceeds the visible water supply that questions and investigations relating to the development or conservation of water reveals future agricultural possibilities of the State, means the expansion of the agricultural area, and the increase of the constituency whom this college is especially founded to benefit, and from whom it may expect to receive support.

The seepage waters of the streams have gradually attracted attention with the greater age of irrigation practice. It has been found that though streams may be drained dry, within a short distance there may be a flourishing stream, and this without visible tributaries. With the greater demand for water, this becomes of considerable economic importance and many ditches are constructed to utilize this water.

While this increase is most notable in the lower stretches of the streams where the old ditches are usually located, the importance to new ditches is the same as if the flow could be used directly by them, for it lessens the draft of the old ditches from the stream and thus enables the newer ditches to secure an equivalent increased supply.

The first question in connection with this subject was the simple one of "How much is the return or seepage water?" From this with fuller knowledge gradually develop other questions: Is the increase the same throughout the year? Is the seepage increasing? May it be expected to increase in the future, so that more land may be

brought under cultivation from this source? Does this increase come from water which is applied in irrigation, or is it an inflow from the natural rainfall? Can it be determined? On the certainty with which these questions can be answered depend certain inter-State questions relating to water rights which are looming up in the future, and may be the source of some trouble. If from irrigation, what proportion of the water applied to the land returns to the stream? How much water or how much land may be expected to yield a water right? Incidentally it involves many other questions, of which the one of the most immediate importance, perhaps, is the speed with which water travels underground. Of this we must have a more definite knowledge before we can answer the host of questions relating to the supply of water from wells, from seepage ditches, and to the general development of underground water, and all those questions arising from the general belief in the "underflow."

To some of these questions the answers are shown with more or less clearness from the investigations of the past five or six years, to others there is still more or less indistinctness. The method of the measurements may be of sufficient interest to describe. The process consists essentially in measuring the amount of the water in the river, measuring all that which flows into the river from visible sources, and all that which is drawn out. In the first measures an attempt was made to close all ditches. In the later ones this has been given up as useless and unnecessary, but the amount the ditches were drawing has been carefully measured. With the development of the questions involved much more care has been taken than was at first realized to be needed, and the measurement has been extended down the Platte, which gives the means of answering some of the problems which have arisen in the smaller stream.

As an illustration of the importance of the seepage water, we may mention that in the last measurement of the Poudre, 160 cubic feet per second was being received from the canon. This was all taken by canals within the first ten miles, and the bed of the river was dry. Nevertheless, though numerous canals were drawing water, the river at its mouth had 120 cubic feet per second. This, if considered of the value at which water has been held during the irrigation season by the farmers, would be worth nearly \$4,000 per twenty-four hours. On the Platte, starting in with 800 feet at the mouth of the Poudre, 700 cubic feet per second were taken out by the canals before Sterling was reached, yet there were 600 feet left, or there was a gain of 500 feet, worth at the above value \$15,000 per day. This is less than its capability to increase the agricultural products of our State if used in irrigation.

The investigations seem to show that the amount is increasing from year to year, and gives reason to believe that the ultimate amount has not yet been reached. The flow benefits the lower reaches of the streams, makes the river more constant and more reliable, especially in the fall and winter season. Furthermore, it indicates the important fact that for most of the year, irrigation at the head waters of a stream is an actual benefit to the lower portions. The importance of this in its bearing upon disputes between the agricultural communities at the extremes of the water courses may only be suggested. The measurements of a previous year gave some reason to believe that the water came from irrigation. Results of this year support that conclusion, and make it extremely probable, if not certain. This in its ultimate bearing I consider as one of the most important facts developed. The present year has been especially valuable for the investigation in its bearing upon this question, as the year has been one when the effect of the rain would be noticeable if the increase from rain rather than from irrigation. But this year, as in two others, we found an actual loss in the stretches of the river where irrigation was not carried on.

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### Peoples Depending on Irrigation Not "Stayers."

A most curious, startling if entirely correct but not especially disturbing to the present generation, statement regarding irrigation comes from a man in Phoenix, Arizona, who is right in the midst of artificial water supply. He says:

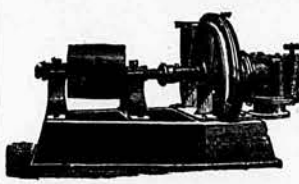
"If the lessons of history prove anything, they clearly demonstrate that all races who have depended upon irrigation for subsistence have perished from the earth. The Egyptians have been slaves to some carnivorous conquerors since the dawn of history, and now cultivate the valley of the Nile for the beef-eating English. The dense population once cultivating the valley of the Euphrates by irrigation has perished from the earth, and nothing remains but a gloomy history and the mounds of mud which mark the ruins of Babylon.

"The Chinese cultivated the soil by irrigation, and 50,000 meat-eating Tartars conquered the Empire of 400,000,000 irrigators, and their descendants hold China as a conquered country to this day. The Carthaginians subsisted by extracting a support from the deserts of northern Africa by means of irrigation, and the ruins of Carthage attest the ephemeral effects of irrigated subsistence on the decay of races. The Jews cultivated the little valley of the Jordan by irrigation, and they are dispersed over the face of the earth.

"In Italy the statistics of 2,000 years (see Minister Morse's report) show the effeminacy and deficient longevity of the Italian irrigators. The irrigating Moors were expelled from Spain by the hardy mountaineers of the Iberian peninsula. In America, less than a thousand Spanish buccaniers conquered the multitudinous subjects of Montezuma, who depended on irrigation for subsistence. In Peru, where irrigation was the only means of existence, a handful of Spanish pirates conquered the inhabitants and carried off their golden treasures.

"In Arizona and New Mexico, a prehistoric race, who existed by irrigating the land, have perished from the face of the earth without leaving an enduring monument."

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### Publishers' Paragraphs.

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We have just received the January issue of *The Cott Spring Hustler*, and find it full of interesting matter pertaining to fencing. If any of our readers are not receiving that paper a copy will be mailed them gratuitously by addressing the Page Fence Co., Adrian, Mich.

When seeds may be had almost for the asking, there's no reason why any family should be without vegetables of their own raising. W. W. Barnard & Co., 186 East Kinzie street, Chicago, offer to send twelve packets seeds for 20 cents, and their handsome catalogue is free to all.

Many of KANSAS FARMER readers are familiar with the New York *Tribune*, the paper upon which Horace Greely expended the best labors of a lifetime. We have perfected arrangements by which we can furnish one year's subscription to KANSAS FARMER and New York Weekly *Tribune* for \$1.25, received at this office.

We have received from the J. W. Miller Co., of Freeport, Ill., their annual poultry catalogue for 1896, which is one of the best and most valuable books we have ever seen. It is a regular "gold mine" for any one who keeps poultry of any kind. It tells how to make poultry pay, how to cure your fowls when they are sick, and how to build poultry houses and yards. It illustrates and describes all the leading varieties of poultry, and is full of interesting illustrations and many valuable hints on poultry-raising that cannot be found elsewhere. The J. W. Miller Co. are extensive breeders of thoroughbred poultry, and their prices, which are given in their catalogue, for fowls and eggs are very low. Please notice their advertisement on another page and send for their catalogue, which only costs 15 cents; it is worth ten times that amount. Address the J. W. Miller Co., Freeport, Ill., and say that you saw their advertisement in this paper.

## SEEDS FREE

ONE CENT for a postal card is all it will cost you to learn how to get 15 packets of Rare, Selected and Tested varieties of seeds, from 30 choice novelties, and a year's subscription to the best agricultural paper published. Send your name and address at once on a postal card, and say you want full particulars of Free Seed Distribution and \$500 prize contest. Address, EPITOMIST PUBLISHING CO., Indianapolis, Ind.

**Gossip About Stock.**

Mrs. F. W. Ives, of Knob Noster, Mo., is the happy possessor of fifty Mammoth Bronze turkeys, which were scored last week by Judge Emery. They averaged 97 1/4 points and Mrs. Ives challenges any poultry-raiser to show a better score.

Harry Killough, of Richmond, Kas., says Mrs. Ives' turkeys, no doubt, are fine, but that his Mammoth Bronze beauties are their equals in every respect, and he has plenty of them for sale also.

The Standard Poland-China Record Association is out with their annual statement, which shows a flourishing condition. For sixteen months, ending January 15, 1896, their receipts were \$6,411.27. The association has paid in dividends to stockholders the neat sum of \$6,865 since its organization. The Secretary for 1896 is Geo. F. Woodworth, Maryville, Mo.

Don't overlook the important closing-out sale on Washington's birthday (next Saturday), at Gardner, Kas., by J. O. McDaniels, who offers to sell his entire herd of prize-winning Short-horn cattle, draft and coach horses and other stock to the highest bidder. At private sale he will sell or lease Pine Tree stock farm, consisting of 344 acres of highly improved land with modern equipment. Also the imported German Coach and Percheron stallion will be sold at private sale. It will pay any of our enterprising readers to attend this sale.

J. R. Scott Fisher, Holden, Mo., writes in reference to his recent sale as follows: "There has not been a day this year that would not have been a better one to hold a sale, as a terrible storm raged in this vicinity the 12th inst., and continued until the 18th, leaving the roads almost impassable, consequently there were but few in attendance at my sale, and the small crowd was supplied before half the offering was sold. Col. Sparks made a strong effort, but the hogs sold very low. I will try to close out the balance privately at a sacrifice, as I must move and can't take care of what I have."

Mr. George Topping, proprietor of Belmont stock farm, near Cedar Point, Chase county, Kansas, reports, through our live stock field man, that his Berkshire and Poland-China swine are coming on first-rate. The poultry—S. C. B. Leghorns, Barred Plymouth Rocks and the M. B. turkeys—are in excellent condition, and a large egg crop is in expectancy for the coming spring trade. Last week he shipped a lot of pure-bred Berkshire porkers to Kansas City and topped the market on heavy hogs for that day, as the "Berks" most always do, especially if they be the kind that Mr. Topping breeds and raises. They are of the best blood, and rightly handled and grown by Mr. Topping.

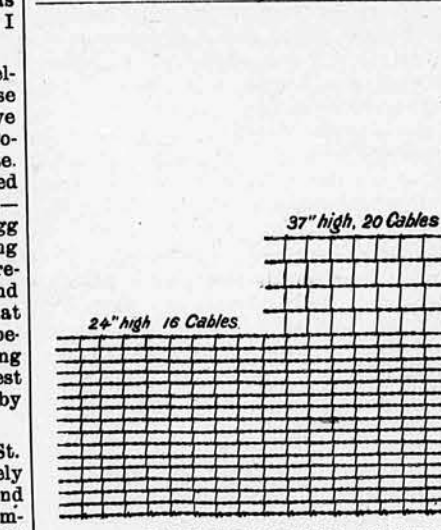
Mr. Francis X. O'Neil, Treasurer, of St. Marys college, at St. Marys Kas., lately visited the Shannon Hill stock farm, and selected the fifteen-months-old bull, Shamrock, sired by Winsome Duke 11th 115137 and out of Queen of Shannon 6th (A. H. B., Vol. 37, page 547). The youngster is a red in color and possesses an even scale with quality and substance. In heart girth at 13 months he measured six feet four inches, also the same in flank. The youngster reached his new home last week and Mr. O'Neil, in acknowledging his arrival to Gov. Glick, proprietor of the Shannon Hill stock farm, among other things stated: "Shamrock arrived safely and in good condition. Everybody here is delighted with him and I am better pleased since I see him here. Kindly thank Mr. Chaffee, your manager, for the care and trouble he took in shipping him. Such is the high character of our new comer that visitors pronounce him the best in this part of the country and your herd is the talk of the country around here now."

P. C. Bowen & Son, Cherryvale, Kas., write that they have concluded not to breed further, White Wyandottes, but say: "We have mated up another breeding yard of Barred Plymouth Rocks, making three grand yards in all of that grand general-purpose fowl, and will also breed an extraordinary high-scoring yard of Rose-comb Brown Leghorns, the variety universally acknowledged to be the 'ne plus ultra' of egg-producers, as well as a grand fancy fowl, and in order to cut our prices down to a gold basis, which at present rules under a Democratic administration, we will sell eggs for hatching from all of our breeding yards at the uniform price of \$1.50 per fifteen, from which no reduction will be made, we preferring to hatch the larger part of them ourselves, raising the chicks therefrom for breeding purposes. We have just ordered a grand Barred Plymouth Rock cockerel from Mr. Sid. Conger, of Flat Rock, Ind., of his celebrated World's Fair winner strains that took the first premium at the Indiana State Poultry show last month, scoring 95 points, to head one of our breeding yards, and we confidently expect to get many grand birds as his progeny. Our four breeding yards comprise half an acre each of land, in the center of which is our poultry house, twenty-eight feet square, fitted up with all

modern conveniences for the health and comfort of the fowls, and our constant aim is to breed nothing but the very best obtainable, annually mating up our yards so as to obtain the very best possible results."

One of the greatest dispersion sales of registered Poland-China swine yet announced so far this year, is that of the herd known as Sunny Slope farm herd of prize-winning animals, owned by Mr. C. S. Cross, of Emporia, Kas. This herd won more first premiums and sweepstake prizes at four of the leading State fairs last year than did any herd in the entire West, and possibly more than did any one single herd in the United States. The reader will find on consulting the sale advertisement found elsewhere in this issue that all the show animals will go into the sale along with the entire herd as it is positively a closing-out sale. Mr. Cross and the manager, Mr. Leibfried, are especially desirous that any Poland-China breeder send for a free copy of the elegantly illustrated and best swine sale catalogue ever issued in the United States. Emporia is situated on the main line of the A., T. & S. F. railroad, also on the M., K. & T. road, which makes it easily reached from all directions. Col. F. M. Woods, the well-known auctioneer, will do the honors of the block and looks forward to the sale as being one of the most successful ever held in this country.

All our readers interested in beef cattle, especially the Herefords, commonly known as "White-faces," ought to be interested in the great closing-out sale announced elsewhere in this issue. The offerings will consist of the entire registered herd known as Rock Creek herd, that was founded in the early 80's by Thos. J. Higgins, formerly of Council Grove, Kas. The reader, if he will call to mind the Hereford cattle exhibits at the State fair circuit west of the Mississippi river in 1885, 1886, 1887 and 1888, will doubtless call to mind the great breeding



DE KALB CABLED POULTRY, GARDEN AND RABBIT FENCE.

and prize-winning bull, Beau Real 11055 by Anxiety 4th 9904 and out of Beau Ideal 8th 9949. His extended pedigree discloses one of the best comminglings of prize-winning blood found in English or American Hereford history; not only this, but during the years mentioned above his first prize and sweepstake winnings aggregated a stronger list than does that of any show yard king of his day and time and the visitor at the farm finds that the high character of the females now in the herd is mainly due to his use at the head of the herd. For further particulars concerning the 250 pedigreed animals and the 300 high grades that combined make it the largest aggregation of Hereford cattle ever offered at one time under the sales block hammer. Consult the advertisement found elsewhere in this issue and send for a copy of the free sale catalogue.

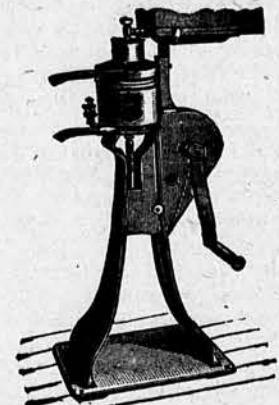
Smooth roadway. Quick time. Perfect passenger service. Uniformed train porters for the convenience of first and second class patrons. Through sleeping cars between Chicago, Buffalo, New York and Boston. Unexcelled dining car service. No change of cars for any class of passengers between Chicago and New York city via the Nickel Plate Road. J. Y. Calahan, Gen'l Agent, 111 Adams street, Chicago, Ill. 52

**Millions of Gold**

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

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

**0.01 OF 1 PER CENT. ONLY, THREE DIFFERENT TESTS. 0.05 of 1 per cent. Only, AVERAGE OF 19 TESTS.**



Such is the grand history of tests, extending over a period of two months, at Cornell University Experiment Station, of the

**IMPROVED U. S. SEPARATOR**  
As just published in Bulletin No. 105 of that Station; the United States Separator excelling all competing dairy machines, and repeating again the history of the tests recorded in Bulletin No. 66 of the same Station.

Truly, The U. S. Stands on Its Own Bottom.  
**PRICES, \$75.00 AND UP.**  
Send for pamphlets giving full details. We want agents in every town and county where we have none.  
**VERMONT FARM MACHINE CO., - Bellows Falls, Vt.**

**Cabled Poultry, Garden and Rabbit Fence.**

Before inviting your attention to the display cut of the Cabled Poultry, Garden and Rabbit Fence, made by the DeKalb Fence Co., of DeKalb, Ill., as shown on this page, we want to say that the marvelous growth of this company and the great demand for their goods in every State of the Union is another instance fully establishing the fact that "true merit will lead to success" every time.

These people were far-seeing enough from the start to appreciate this, and every line they manufacture receives the greatest care possible as to quantity and quality of material, workmanship, and the perfect adaptability of their goods to every section of the country, whether hilly or level, hot or cold.

The steps in the above cut shows the different heights of their Cabled Poultry, Garden and Rabbit Fence, and the number of horizontal cables in each height. Each

**MONEY FOUND**

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

**1,000 Peach Trees with freight prepaid to any station east of the Mississippi river, 2 to 3 feet, for \$25.** Other sizes in proportion. List of varieties or samples sent on request.  
R. S. JOHNSTON, Box 17, Stockley, Del.

**1000 ASH \$1.** Black Locust and Osage Hedge at about same price.  
**100 APPLE,** 3 to 4 ft., \$5. All leading sorts. Cherry, 3 to 4 feet, \$15. Concord Grape Vines, \$2.  
Complete Price List FREE.  
**JANSEN NURSERY,**  
Jansen, (Jeffon Co.), Neb.

**SOIL MOISTURE!**

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

**FERRY'S SEEDS**

**Ask** for them—get them, plant them. They are the standard seeds everywhere; sown by the largest planters in the world. Whether you plant 50 square feet of ground or 50 acres, you should have **Ferry's Seed Annual for '96.** The most valuable book for farmers and gardeners ever given away. Mailed free.  
**D. M. FERRY & CO., Detroit, Mich.**

**SEED POTATOES!**

My Own Production.  
**EARLY OHIO**  
Yielding in 1895 330 Bu. Per Acre.  
Kept from sprouting, are plump, full of vitality, excellent for either seed or the table. Seed came from Minnesota last spring.  
One Bushel.....75c. | One Barrel.....\$2.00  
Write for prices on large lots.  
**B. H. PUGH, Topeka, Kas.**

**FOR SALE!**

**Choice Varieties of Best Early SEED POTATOES.**  
Early Six Weeks.....70c. per bushel  
Early Kansas.....70c. per bushel  
Early Ohio.....65c. per bushel  
Early Beauty of Hebron.....65c. per bushel  
Early Rose.....65c. per bushel  
Burpee's Superior.....65c. per bushel  
All the above varieties good size and sound, in sacks or barrels, delivered to any railroad depot here.  
Address **TOPEKA PRODUCE CO., 304 Kansas Ave., TOPEKA, KAS.**

**HENRY W. ROBY, M. D., SURGEON.**

Office 118 Sixth Ave. West. TOPEKA, KAS.

**RUMELY ENGINES**  
Traction, Portable and Semi-Portable. Simple and Compound. Also Threshers, Horse Powers, Saw Mills.  
Send for illustrated catalogue free. Ours are equal to all—Surpassed by none. "It's a way we have."  
**M. Rumely Co. Laporte, Ind.**

## The Home Circle.

CAPTAIN JACK.

Jack Crawford's been a-tellin' us of sunshine an' of song,  
A-laughin' us to glory an' a-cheerin' us along;  
A-tellin' Western stories in a most uncommon way,  
Till pathos brought the tear drop which his laughter wiped away.  
He's plain in all his wisdom an' his hearty clasp of hand  
Is just the best religion—every soul can understand.  
He throw out chunks of pity to the heart in sorrow bow'd,  
And said: "God sprinkles sunshine in the trail of every cloud."

Jack Crawford, you have taught us how along life's dreary way  
Hope's star may shine in darkness till the dawning of the day;  
When the sunshine God will shower over sinners, over saints,  
Till the sky is all a-glory with its carmine tinted paints.  
Your gladness conquered sadness an' we wear a smilin' face,  
A-groplin' an' a-hopin' we may conquer in the race;  
You've torn the somber mantle which enveloped like a shroud  
In your: "God will sprinkle sunshine in the trail of every cloud."

Jack Crawford, how we'll miss you when your earthly work is done,  
When the post's work is over and his honored crown is won,  
We'll miss your hearty clasping of a fellow toiler's hand;  
We'll miss the face of sunshine which we all can understand.  
But when the call shall summon you to cross the mystic range,  
You'll find this life's been tallied and the other won't seem strange;  
The Foreman Great will crown you for you've done his bidding proud,  
And "God will sprinkle sunshine in the trail of every cloud."

—Roy Farrell Greene, Arkansas City, Kas., in Inter Ocean.

## OUR FIRST PRESIDENT.

Great as a Statesman But Greater as a Citizen.

The Preservation of the Union After the Early Colonial Struggles Was Due Entirely to Washington's Personal Influence.



EVERYONE without exception," wrote the minister of France in the report to his government on the inauguration of Washington as the

first president of the United States, "appeared penetrated with veneration for the illustrious chief of the republic. The humblest was proud of the virtues of the man who was to govern him. Tears of joy were seen to flow in the hall of the senate, at church, and even in the streets, and no sovereign ever reigned more completely in the hearts of his subjects than Washington in the hearts of his fellow-citizens. Nature, which had given him the talent to govern, distinguished him from all others by his appearance. He had at once the soul, the look and the figure of a hero. He never appeared embarrassed at homage rendered him, and in his manners he had the advantage of joining dignity to great simplicity."

It was an ovation such as has come to but few persons in human history, and it marked the position of George Washington as one of the most unique in the history of the world. There have been greater generals, there have been great statesmen, there have been men who combined both capacities perhaps in as high a degree in their acts done in the broad light of publicity. But no one comes to mind who during his lifetime exercised so great an influence upon his country. Of him it was true that he can best govern others who has learned to govern himself. There is scarcely another personage in history who was at once as patriotic as the enthusiast, yielding nothing in fervor for country to the impulsive Patrick Henry, and yet preserving that tranquillity which kept his mental vision unobscured by passion and unclouded by the dreams of zealots, equal in wisdom and calmness of judgment as an architect of states to his illustrious associate, James Madison.

Aspiring to the loftiest ideas of freedom, independence, prosperity, progress and happiness, his was nevertheless a moderation which kept in view that which was attainable practically, and he never reached for the will-o-the-wisps which dazzle the imagination of well-meaning, but impractical enthu-

siasts. He seldom failed in what he undertook because he took care not to attempt that which was beyond his means and never to proceed until his clear reason saw at every step of the enterprise the manner of carrying it out. That this moderation did not lead to timidity, that the "native hue of resolution" was not "sicklied o'er with the pale cast of thought" so as to lose its strength is shown by such bold enterprises as his incursion into New Jersey across the ice-swollen Delaware and the successful assault on the British invaders.

It was this dignified moderation which caused him to estimate justly both the resources at his disposal and the difficulties to be overcome, that gave him not pride, but confidence, and thus not only invited, but compelled the confidence of others. No man differently constituted could have held the continental army together in the terrible winter of Valley Forge and under the trials and distress caused by jealousies in congress and insufficiency of means. Nor could any other type of man, on the other hand, have restrained the impetuosity of his officers and men who would have used their power for their own benefit against their countrymen if only to the extent of exacting their just dues.

But more remarkable, because enforced by no civil or military authority, but only by the weight of his personality, was his influence during the time preceding the adoption of the con-



WASHINGTON AT VALLEY FORGE.

stitution. During the most critical period of American history, when anarchy threatened to overwhelm the people, when the various interests of producer and carrier, of south and north, of slaveholder and anti-slavery zealot, local differences of tradition and descent, and the individual pride of the states were all pulling in different directions and the body which had been held together, apparently with reluctance, under the pressure of foreign invasion, bid fair to be dissolved into its original units, it was the personal influence of Washington that contributed more than any one cause to a happy solution of the serious difficulties. When the state of Virginia, after her heroic conduct in the beginning of the revolution and throughout the war and her noble sacrifice in yielding to the confederation her vast northwest territory, was on the point of frustrating all that had gone before by refusing to accede to the constitution submitted to the states for ratification, it was the influence of Washington that saved that great state for the cause of the union and thus saved the union itself. Not taking part in the debates of the legislature or the subsequent convention, he was active, nevertheless, by writing to his friends and answering inquiries from numerous citizens until the ratification was carried against the violent exertions of some of the ablest of Virginia's remarkable galaxy of statesmen.

Most powerful of all, however, was the quiet influence of Washington's personality at that time, not only in his native state, but all through the states; and it is in this silent force which was at work among the people that his unique position in history stands out most clearly. The personal element is always stronger than that of an abstract idea in political movements. It may be fairly doubted, and is actually doubted by the highest historical au-

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

# Royal Baking Powder

ABSOLUTELY PURE

thority, if the new government could have been established on broad national lines merely on the strength of its inherent virtue, had there not been back of it the heroic figure of Washington. The new plan of government being a compromise between conflicting interests and modes of thought met with dissatisfaction, in some particular, almost everywhere, but there was abroad among the people the feeling, sometimes clearly expressed but generally remaining in an indistinct form, that whatever there was unsatisfactory in the plan was bound to work out well in the hands of Washington. This unbounded trust in the people's hero had designated him for the first executive long before the constitution itself was ratified, and but for this faith in the one man we might not have had the nation of the United States of America, but in its stead several disjointed confederacies. With perfect propriety could the Italian patriot Alfieri greet Washington with the words: "Happy are you who have for the sublime and permanent basis of your glory the love of country demonstrated by deeds." And it was not merely local feeling, but fairly represented the universal sentiment of the people which found expression in the parting words of his neighbors of Alexandria when he left them on his journey to New York to enter upon his duties as president of the United States: "Farewell, and make a grateful people happy; and may the Being who maketh and unmaketh at His will, restore to us again the best of men and the most beloved fellow-citizen."

It is customary to speak of Washington in his public capacity of commander-in-chief or of president. It may be well, therefore, to have called attention to the silent influence above described, for it is not blazoned on the pages of history, but nevertheless, perhaps, the most important part of his life work. And it was well for the young republic that it enjoyed during the first years of its existence government by a man of supreme self-control and moderation. The success of the American revolution fanned into life the spark of liberty in Europe and the organization of the government must be on a firm foundation to withstand the influences of the convulsions that were to occur within a few years and set the nations of Europe at each other's throats. Washington was prepared. His comprehensive mind discerned the approaching storms both abroad and in his own country. He

understood well the conflict of opinions in which he had borne a dignified part in the federal convention of 1787, and the fierce party strife which it foreshadowed. When he was called to the presidential chair he was ready with a federal policy, the result of long meditation. This was his policy: "To preserve freedom, never transcending the powers delegated by the constitution; even at the cost of life to uphold the union (a sentiment which, as George Bancroft says, in him had a tinge of anxiety from his thorough acquaintance with what Grayson called the southern genius of America); to restore the public finances; to establish in the foreign relations of the country a thorough American system; and to preserve neutrality in the impending conflicts between nations in Europe."

By no act of his life, full of glory and heroism though it was, did Washington become more truly the "father of his country" than by that influence which emanated from him and from the example of his life while he was quietly striving to repair the remains of his fortune shattered by seven years' absence and the ravages of the war, that fortune, which, when it was yet in full bloom, he had pledged to the starving soldiery in support of the credit of the nation yet unborn.

H. E. O. HEINEMANN.



### FREE TO SUFFERING WOMEN.

I suffered for years with uterine troubles, painful periods, leucorrhoea, displacements, 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.

Rev. John Reid, Jr., of Great Falls, Mon., recommended Ely's Cream Balm to me. I can emphasize his statement, "It is a positive cure for catarrh if used as directed."—Rev. Francis W. Poole, Pastor Central Presbyterian Church, Helena, Mon.



## CATARRH

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

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

THOS. B. SHILLINGLAW, Real Estate and Rental Agency, 115 East Fifth St., Topeka, Kas. Established in 1884. Calls and correspondence invited.

FOR

## External Pains as

Rheumatism  
Neuralgia  
Chilblains  
Frost Bites




# Dr. J. H. McLEAN'S Volcanic Oil Liniment




Gives instant relief, heals cuts, burns, bruises, scalds, sprains, wounds, old sores, ulcers, scald head, earache, eruptions, pimples, skin worms, sciatica, lumbago  
Price, 25c, 50c & \$1 per Bottle  
Sold Everywhere  
The Dr. J. H. McLean Medicine Co., St. Louis, Mo.



**THE MARCH OF AMERICA.**

March, march, men of America!  
 Resolute army to ease the world's fettering.  
 March, march, men of America;  
 Millions united to win the world's bettering.  
 Ours is a high estate, ours is a duty great  
 Making the future, the hosts in one band;  
 Ours is a purpose deep, ours a great faith to keep;  
 This the arena vast—This is the land.  
 March, march, farmer and artisan,  
 Brothers with brothers, in peace or in war.  
 March, march, thinker and partisan  
 Destiny calls and we follow our star.

Tramp, tramp, this is the later world,  
 Noble the heritage time has so brought to us;  
 Tramp, tramp, this is the greater world,  
 Who would be laggard now is but as naught to us.  
 Ours are the mountains grand, ours the fair meadow land,  
 Ours the blue spread of the sweet water seas,  
 Ours the swift rivers' pride, ours are the harbors wide,  
 Ours the vast forests and far-stretching leas.  
 Tramp, tramp, mountain and valley come,  
 Ocean to ocean re-echoes the call;  
 Tramp, tramp, prompt to the rally come,  
 We are the warders and guarders of all!

March, march, seeking the newer thing,  
 All of a continent's manhood that's vigorous;  
 March, march, seeking the truer thing,  
 Stern to attain the aim, earnest and rigorous.  
 Here the old strivings end, here all conditions blend,  
 Here is the blood of humanity one;  
 Here all the races melt, Saxon and Norse and Celt,  
 Here is the best for humanity done.  
 March, march, birth is a little thing,  
 Weak are the legends which burden the past;  
 March, march, creed is a brittle thing;  
 Here is the lot of humanity cast.

Tramp, tramp, buoyant and glorious,  
 Leading the swing or the world to sodality;  
 Tramp, tramp, ever victorious,  
 Changing the hope of the world to reality.  
 Mark where Old Glory flies! Blue are the bending skies,  
 Fair is the promise and certain the goal;  
 God will award the fight; He will promote the right.  
 Hark to the summons! It is the Long Roll!  
 Tramp, tramp, easily, gallantly,  
 This is America—here is the van!  
 Tramp, tramp, jauntily, valiantly,—  
 March of the Ages, and march of the Man!

Copyright, 1896. STANLEY WATERLOO.

**DOG THAT REASONED.**

**Know When It Was Safe to Sleep on His Master's Bed.**  
 No one who knew Bombshell ever doubted that he reasoned and thought, but occasionally I would find a stranger who was not inclined to believe it, and then I would tell him the following story: My parlor was a front casemate which opened by an arch into my bedroom, a back casemate. A casemate may be described as a room in the wall of a fort, generally intended, in war time, to hold a gun or powder, while in time of peace many of them, like



"SUPPOSE MY MASTER HASN'T GONE?"

mine, are fitted up for use as quarters for officers and soldiers. Bombshell had his own bed in the back casemate; but he preferred my bed and would use it whenever he could. I had tried to break him of the habit, but had not been successful. One day he came in wet and muddy, and, as usual, curled up on my white

counterpane. The result was awful. As much as I hated to do so, I felt obliged to give him a thrashing. I never caught him on my bed again. He would still get on it; but, no matter how quietly I came in, I would always find him on the floor, though I could see from the rumpled condition of the bed that he had been on it, and often the spot where he had slept would still be warm. One evening I went out, leaving Bombshell lying by the parlor stove. Out of curiosity I peeked through the half-turned slats of my shutters and watched him. From my position I was able to see the whole of both of my rooms. For awhile Bombshell did not move; then he raised his head and looked at the door; finally he got up, stretched himself, yawned sleepily, walked to the bed, jumped up, and put his fore paws on it. Standing in this position, a thought struck him, and he said to himself: "Suppose that my master hasn't gone? He will catch me and then I will get a licking. I'll go and make certain that he is not coming back." I know that he said this because he took his paws off the bed, walked cautiously back to the front door, and, with his ear close to the crack, he listened. At last, satisfied that I had really gone, he trotted back to the bed, jumped on it, curled up, and went to sleep. After such a clever act I thought that he had earned his sleep, so I went away and left him.—Lieut. John C. W. Brooks, in St. Nicholas.

**LITTLE GIRL'S TRAVELS.**

Will Journey, All Alone, from San Francisco to Australia.  
 On the steamer Dora, that recently entered San Francisco bay on its return from Alaska, was one wee passenger who has quite a history for a small girl.  
 Her father, Richard Beasley, was ship's clerk on the warship Pinta, and some years ago sailed from New York to Alaska. He left his wife and child behind, expecting to send for them. After he had been gone some time Mrs. Beasley died, leaving Jennie, then a baby of four years, alone.  
 The wee mite was tagged, put on a train and started for Yukatu, Alaska, where her father had taken charge of a trading store. She arrived safely and for four years was the only white child in the village, but was perfectly happy with her native playmates.  
 Her father has now decided to send her to Brisbane, Australia, to live with an uncle and to go to school, as the missions in Alaska are not very advanced, and this child, not more than nine, has started on her long journey. If she reaches her destination in safety she will be the greatest traveled person of her age now living, having journeyed half around the world in a westerly direction and one-third of the way around in a southerly course.

**A TRUE SOLUTION.**



Patriot—Say, little boy, do you know why Washington crossed the Delaware?  
 Boy—Wanted to get on the other side, I reckon.—Texas Siftings.  
 Heard the Name Before.  
 A good story is told of a negro janitor in New York. An occupant of one of the legal offices from which he daily in the winter season removed ashes was moved to present him on Christmas with a handsome gratuity in legal tender. "Merry Christmas, George," he said. "By the way, George, what is your other name?" "Washington, sir—George Washington." "Yes, I believe I have heard that name before," said the lawyer. "I s'pose you has, sah; I s'pose you has," said the dorky. "I've been takin' out ashes here for 20 years."

**How to Keep Cut Flowers.**

It is said that cut flowers will keep very fresh if a small pinch of nitrate of potash, or common saltpetre, is put in the water in which they stand. The ends of the stems should be cut off a little every day to keep open the absorbing pores.

**An Exception.**

"No truly great man ever yet Confessed 'I can't,' my lad," So sagely spake a father to his son. The hopeful answered: "Don't forget That little story, Dad, You used to tell about George Washington."  
 —Harry C. Baker, in Puck.

**Better than**

any other: Vacuum Leather Oil. Get a can at a harness- or shoe-store, 25c a half-pint to \$1.25 a gallon; book "How to Take Care of Leather," and swab, both free; use enough to find out; if you don't like it, take the can back and get the whole of your money.  
 Sold only in cans, to make sure of fair dealing everywhere—handy cans. Best oil for farm machinery also. If you can't find it, write to VACUUM OIL COMPANY, Rochester, N. Y.

**YOUR PAST, PRESENT, AND FUTURE.**

You have suffered much in the past. Many of your days have undoubtedly been darkened by the shadow of sickness and ill health. You have oftentimes felt gloomy and despondent. At the present moment you may not be feeling just as well as you ought to feel. Perhaps you are experiencing the first symptoms of some serious ailment which is lurking in your system. Unless it is promptly checked there may be a long siege of illness in store for you. Now is the time to

**STOP AND THINK**

about the actual state of your health. If you are suffering from tired feelings, headaches, backaches, biliousness, debility and other symptoms, remember that your present and future are in your own hands. You can get that most precious blessing of sound health, as others have done, by the aid of Warner's Safe Cure. Volumes could be filled in telling of what it has done for men and women who were completely run down in health. Its splendid tonic effects give new life and energy to those who are weary and worn out. If you are in need of help you should make your present and future happier by putting your system in sound condition. Get a new stock of health and strength by using the great safe cure which builds up the body, purifies the blood and makes the eye brighten with the sparkle of fresh life.

Washburn College, Topeka, Kansas. For catalogue, address the Registrar, Washburn Academy. For information, address the Principal.



**And School of Shorthand, Typewriting, Telegraphy and Normal Penmanship.**

The only Commercial College in Southern Kansas that teaches Actual Business Practice through the regular United States mail with all the leading colleges of America. This feature alone should decide where to get your Business education. Over two hundred graduates and students filling good paying positions. Located in the beautiful Y. M. C. A. Building. (Incorporated). Fathers and Mothers, this is a safe place to send your sons and daughters, because the surroundings and influences are everything that can be desired. For Commercial Journal and Illustrated Catalogue, giving full information, address E. H. ROBINS, President, Wichita, Kas.

**FREE** A GENUINE 14 K. GOLD-FILLED WATCH and chain to every reader of this paper. Cut this out and send it to us with your address and we will send you FREE for examination the Best and Only Genuine American watch ever offered at this price. It is 14k. Solid Gold filled, with Genuine American Movement, 20 Years' Guarantee, and looks like a Solid Gold Watch sold at \$40. Examine at express office and if you think it a bargain, pay \$1.50 and express charges, otherwise pay nothing. A Handsome Gold Plated Chain, sold in certain stores for \$3 goes free with each watch.  
**OUR GRAND OFFER.**  
 FREE One of these \$7.50 watches and a chain, if you buy or sell SIX Watches To-day, at this price holds good for 60 days only. ROYAL WATCH CO., 507 Unity Bldg., Chicago, Ill.

**ASK YOUR DEALER FOR W. L. DOUGLAS \$3. SHOE BEST IN THE WORLD.**

If you pay \$4 to \$6 for shoes, examine the W. L. Douglas Shoe, and see what a good shoe you can buy for **\$3.**  
**OVER 100 STYLES AND WIDTHS, CONGRESS, BUTTON, and LACE, made in all kinds of the best selected leather by skilled workmen. We make and sell more \$3 Shoes than any other manufacturer in the world.**  
 None genuine unless name and price is stamped on the bottom.



Ask your dealer for our \$5, \$4, \$3.50, \$2.50, \$2.25 Shoes; \$2.50, \$2 and \$1.75 for boys.  
**TAKE NO SUBSTITUTE.** If your dealer cannot supply you, send to factory, enclosing price and 36 cents to pay carriage. State kind, style of toe (cap or plain), size and width. Our Custom Dept. will fill your order. Send for new Illustrated Catalogue to Box M.  
**W. L. DOUGLAS, Brockton, Mass.**

**KANSAS FARMER.**

ESTABLISHED IN 1863.

Published every Thursday by the

**KANSAS FARMER COMPANY.**

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.**ADVERTISING RATES.**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.**

During the last ten days several dollar bills have been received by the KANSAS FARMER subscription department without any name to indicate the sender. Please be careful, friends, to write your name and postoffice plainly whenever writing to this office, especially when sending money.

The usual annual requests for free field seeds, garden seeds and flower seeds are beginning to reach the State Agricultural department. It would be a saving of time and postage if it were better understood that the State Board of Agriculture has nothing to do with any seed distribution, free or otherwise.

We publish this week a copy of a letter from Mr. C. Wood Davis to a member of Congress, urging the passage of the Bankhead bill for the protection of producers against the ruinous methods of the gamblers in values of products. It will be well if every farmer write to his Congressman urging the passage of this bill. The depressing effects of this kind of gambling have had much to do with the depression which has affected producers all over the world.

Senator Peffer's resolution for the investigation of the several bond transactions of the present administration passed the Senate last Monday. The resolutions were heartily endorsed by the New York World, the paper which took the lead in compelling the administration to offer the last series of bonds to the public instead of allowing the Morgan syndicate to take them under private arrangement at about \$7,000,000 less than the amount realized by the plan adopted.

The January, 1896, subscription business of the KANSAS FARMER was far in excess of that of any other January of recent years. February is following as a record-breaker, and the publishers are not complaining. While most of those whose time expired January 1 have sent in their renewals there are still some who are yet to hear from. The subscription department suggests its willingness to credit their dollar bills as rapidly as sent. If any subscriber has not seen our late supplement describing combination offers, etc., his request for a copy will be honored as soon as received.

A new and heretofore greatly needed series has just appeared from the press of John B. Alden, New York. It is a "Living Topics Cyclopeda," arranged in alphabetical order and to be published continuously. The standard cyclopedias are very satisfactory for all information current at the time they were made, but the man of to-day wants a reference book of the latest developments of knowledge. This the "Living Topics Cyclopeda" furnishes in good cloth binding. The price is to be 50 cents for each 500 pages. These books will be next to indispensable to persons who claim to be up with the times.

**THE ECONOMIC PRODUCTION OF PORK.**

The question of the value of grass in the feeding of pigs, i. e., in the manufacture of pork, is one for which there has been a total scarcity of exact information. It has long been known in a general way that clover and alfalfa pastures are good for hogs and are used at a profit to the feeder. It has remained, however, for Prof. A. A. Mills, of the Utah Experiment Station, to present the results of a series of carefully-conducted experiments in "The Economic Production of Pork."

It may be remarked that Prof. Mills is a graduate of Kansas Agricultural college. He was, while a student, well known to the writer hereof, who has no hesitation in vouching for the absolute honesty of his reports and the care and accuracy of his experimental work.

In Bulletin No. 40 of the Utah Station, Prof. Mills gives the details of his experiments, covering a period of two years, 1894 and 1895. We can give here only a portion of the results. One of his first, though not new findings, is that it costs more per pound to produce a very large than a medium or light hog. Thus, the number of pounds of grain used to produce one pound of gain was, for seventy-five to 100 pound pigs, 3.62 pounds of grain for one pound of gain; 100 to 150 pound pigs, 4.13 pounds of grain per pound of gain; for 150 to 200 pound pigs, 4.55 pounds of grain per pound of gain; for 200 to 250 pound pigs, 5.01 pounds of grain per pound of gain; for 250 to 300 pound pigs, 7.13 pounds of grain per pound of gain; over 300 pound pigs, 10.03 pounds of grain per pound of gain. Prof. Mills says of this showing:

"The paying hog is the one that can be put on the market from six to ten months old, weighing from 175 to 300 pounds. If this is correct, then there is no time for a partial starvation period; neither is there a necessity for a large frame; for the sooner the hog is put on the market after he weighs 200 pounds, the better for the producer. It is clear that the animal should be made to reach this weight as early as possible."

It was found that pigs, which had been for sixty days in pasture on one-fourth grain ration, made, when placed on full feed, more rapid gains than any others, each pig gaining 138 pounds in sixty days, and that the cost per pound of gain was less for the pigs thus treated than for any others. Pigs thus treated and making such gains should reach the weight which is now most in demand, about 200 pounds, when quite young. In Kansas, early spring pigs kept on pasture and a light grain ration until the first of July, then given full feed of say early green corn, should be ready for the September market, which has been shown to average the highest of the year.

Prof. Mills gives the following general summary of his experiments:

1. Pigs allowed to run at large over eighteen acres of good pasture and fed a full ration of grain made the most rapid growth and required the least grain for one pound of gain.
2. Pigs confined in movable pens in the pasture grew more slowly than those running loose and required an increase of 20 per cent. of grain to make one pound of growth.
3. Pigs at pasture, fed under three different conditions, gained 92.5 per cent. more and ate but 2 per cent. more than the pigs getting grass and otherwise similarly fed but confined in pens. The grain required to produce one pound of gain was increased 40 per cent. with those in pens over those at pasture.
4. Pigs fed but part rations of grain at pasture made satisfactory gains. Those at pasture getting the three-fourths grain ration gained more than those fed a full grain ration and grass, either in the yards or in the pens.
5. Pigs pastured without grain made about the same growth for three seasons in succession, this averaging .36 of a pound per day.
6. As nearly as can be judged, exercise alone increased the gain 22 per cent. and the amount eaten but 1.5 per cent., but decreased the amount required for one pound of gain 22 per cent.
7. Grass when cut and fed green to pigs, whether fed in pens or yards, or with full or part grain ration, or without grain, proved to be of very little value.
8. Pigs confined in pens and fed on grass alone, mostly lucern, for ninety-one days, lost over a quarter of a pound per day.
9. The average of the pigs fed on grass gained a little more than those without the grass, but not enough to pay for the extra feed in the grass.
10. With the pigs confined in the hog-house pens the grass proved beneficial, while with those in the yard it proved detrimental, the latter requiring more

grain to make a pound of pork than without it.

11. Pasturing either with full or part grain rations appeared to be by far the cheapest and best way of making pork.  
NOTE.—The grass is a mixture of eight varieties, in which lucern constitutes at least one-half.

J. W. Babbit, of Hiawatha, inquires where he can get the Mammoth White Dent seed corn, such as was raised at the experiment station at Manhattan.

Do not put off pruning the grape vines. February is as late in the spring as this work should be left. This promises to be an early spring so do not delay another day. Full directions are given in the Horticultural department of this number of the KANSAS FARMER.

The letter from Hans Rasmus, of Corning, Kas., about his seedling peaches, which was published in the KANSAS FARMER recently, has gotten him into trouble by bringing him more letters from Kansas and Oklahoma than he can answer. He desires us to say that he has planted all of his seed and therefore has none to sell, but hopes to have trees for sale next season.

With all of our State Railroad Commissions and our elaborate Inter-State Commerce Commission, the people seem to be powerless when these great corporations desire to make the rates to the Gulf so high as to turn our corn to the Eastern seaboard for export. The frothings of the press of the State indicate some restiveness at the situation. This is likely soon to subside, however.

One hundred and four bushels of corn per acre is the amount reported by J. A. Baxter, of Waveland, Shawnee county. It was grown last year on land which had been in potatoes. Good culture and well-selected seed corn the chief points of Mr. Baxter's explanation of how he did it. Ground plowed about twelve inches deep. Yellow dent corn, best and largest ears selected for many years. A big cob with plenty of corn around it meets with approbation from Mr. Baxter. Four sample ears brought to this office weigh 15, 16, 16 $\frac{1}{2}$  and 18 ounces, respectively.

After the late exhibition by this country of the "roll" on which is inscribed the Monroe doctrine, England has, with great unanimity, discovered that she does not want a foot of Venezuelan territory and has declared with great alacrity that she is willing and anxious to arbitrate every matter of doubt. She also expresses great admiration for the course taken by this country in the matter and particularly for the fact that we have appointed a commission to investigate the facts of the location of the disputed boundary between British Guiana and Venezuela. The way in which John Bull got down from his high horse was just beautiful to behold. Hereafter a suggestion of the Monroe doctrine is likely to be even more potent than in the past.

Mr. H. W. Campbell, editor of *Western Soil Culture*, a high-class agricultural journal, at Sioux City, Iowa, was a visitor in Topeka, last month, and evidently went away pleased with some of the things he saw and heard. Among other kindly editorial expressions as to these, he says in his last issue: "It was our pleasure to attend the last two days of the annual meeting of the Kansas State Board of Agriculture, held at Topeka, January 8, 9 and 10. Not that we wish to be partial, or in any way flatter Kansas' able and industrious people, however we are frank to say it was the most interesting and instructive meeting we have ever attended. One feature is worthy of mention and exceedingly commendable, and that was the entire absence of exaggeration by any of the speakers. All of the lectures were brim full of practical ideas and mainly the result of the speaker's own experience. The complete report of the meeting will be one of great interest."

"Bacteria do not occur in the blood or in the tissues of a healthy living body, either of man or the lower animals." So says the celebrated Dr. Koch. Other doctors say that the best medicine to render the blood perfectly pure and healthy is Ayer's Sarsaparilla.

**Government Money Almost Without Interest.**

A new plan for handling the currency and bond interests of the country is proposed by Mr. E. C. Looy, President of the Kansas City Hay Press Co. Mr. Looy is a most successful inventor of machinery, and as a manufacturer and manager of large interests has forged rapidly forward during the times when many others have failed. His suggestions are well worth considering:

"Should the government issue bonds bearing 2 per cent. interest and require all banks to take out nearly their capital stock in currency, buying these bonds at par to use as a deposit to secure the currency, the same as is now done by the banks, except give them a dollar of currency for a dollar of bonds. Next step: Of this 2 per cent. interest the government is to retain 1 per cent. and the banks 1 per cent. to create a sinking fund to pay off the depositors in the banks that have failed. The banks should not be allowed to divide this 1 per cent. up, but keep it as a fund for the purpose named. The government is not to use its part except to pay depositors in case of a failure of a bank. This would insure confidence in the banks from the depositor's standpoint of view, and each bank would have a watchful eye on other banks, fearing they would have to pay some of their losses. These bonds could run for, say, fifty years. We would have enough money to do our business on and we depositors would have no fear of losing anything from banks failing, and our national debt would cost us but 1 per cent. interest, which interest makes an insurance fund that all banks are good that the government licenses to do business. It would be better to require all banks to follow in this line, no exceptions being allowed for State or savings banks. By this means the farmer could not say that the banks were getting interest from the borrower and from the government, too, as they do now."

**Allen County Farmers' Institute.**

EDITOR KANSAS FARMER:—The first institute in the history of the county was very successfully held at Iola on February 14. Hon. J. T. Treadway was elected President and responded with an eloquent speech that was received with thunderous applause. Hon. L. B. Pearson was elected Vice President, and Hon. Chas. F. Scott, of Iola Register fame, was elected Secretary.

Prof. Failor, of the Agricultural college, gave an interesting talk upon "Effects of Soil Tillage." The great points brought out were the constant tendency of rocks to break up and soil to cement. Plowing, cultivation and drainage were well shown up.

Clarence J. Norton then read quite a remarkable paper on "Subsoiling," in which he paid the soil and climate of eastern Kansas and western Missouri a very high tribute, also to the inventor of the new-process subsoil plow, Mr. A. B. Perine, of Topeka. He saw that every one present had a copy of the KANSAS FARMER, and we anticipate that that great journal will have the support from Allen county that it deserves. Mr. Norton's article brought out so much discussion as to show the interest felt in the subject. So well was it received that he was showered with congratulations.

Hon. E. H. Funston gave a highly interesting talk on "Diversified Farming," which every farmer of the Second district should have heard. Mr. Funston has had one hand hold of the pen in the United States Congress and the other among the burs on Deer creek, so to speak, and his many observations afforded a fund of information.

Great credit is due that indefatigable worker for the farmers' interests, Chas. F. Scott, late Senator for this district. His untiring efforts for the farmer place him in the highest estimation by them here and will some day be returned by placing him in the position he is so eminently well fitted for—that of United States Senator.

REPORTER.

Lack of vitality and color-matter in the bulbs causes the hair to fall out and turn gray. We recommend Hall's Hair Renewer to prevent baldness and grayness.



## Protection Against Short Sellers.

PEOTONE, KAS., February 10, 1896.

Hon.—, Washington, D. C.

DEAR SIR:—There is now before the Committee on Agriculture a bill in which the great mass of farmers of the States producing a surplus of grain and cotton take an abiding as well as a keen interest. This is the bill introduced by Mr. Bankhead.

Growing both wheat and corn largely, and having formerly been engaged in buying and milling grain, I have had and have availed myself of exceptional opportunities to see, study and feel the effects of the change in market methods following from the adoption of the practice of selling "futures" by those who neither own nor expect to own quantities of the products in which they pretend to deal. Not only are the markets of this country, and of the world, overloaded and prices therefor greatly depressed by the quantities of flat grain and cotton offered, but the hedging operations of the miller and elevator owner—vociferously claimed to be legitimate—results in doubling the quantities offered. That is, the hedging owner not only sells a "hedging future contract," which he intends to buy back when the price can be depressed far enough, but he offers the actual product against which he has sold this hedge. But this is far from the worst of this hedging business. For every lot of product he buys he puts out a long "future," trusting to manipulation and the chapter of accidents to enable him to buy it back at a profit. That is, he owns or holds but a small fraction of the product represented by his hedging contracts—the contracts outstanding representing all the grain that has passed through his hands in months. Thus his real interest is not in advancing the value of the real product that he holds temporarily but in depressing the value of his outstanding contracts. In other words, his interest in the price of the real product is in the ratio of 1 to 10, or 1 to possibly 100, in contracts. Thus even the receivers and handlers of real grain are, by this nefarious system, made enemies of good prices, because their outstanding contracts represent many times as much grain as they own.

An equally pernicious effect—possibly worse—of the "futures" system is the direct power it gives of manipulating markets and prices without owning a bushel of grain or a pound of cotton, as a few wealthy operators—and one has been known to do it—by immense offerings of fictitious product depress prices, and cause wide and destructive fluctuations on which they sell or buy, as they may be long or short of paper contracts.

Moreover, this system enables the smallest operator, who can command but a few hundred dollars, to offer more grain than is grown on the largest farm, although a large capital is invested and great sums expended annually for wages.

But ten days since one of the great Chicago speculators had his broker selling grain on one side of the pit while he had another set of brokers on the other side buying in the fictitious products sold. This operation was made possible, so far as effect upon prices was concerned, only by the futures system, yet this enabled this one operator by fictitious sales of phantom products to deflect world prices for wheat.

As a Republican, I have always favored a protective policy, and have not objected when this policy was carried far in the interest of the Northeastern manufacturer; but if protection is needful against the offering in our markets of the products—the real products—of the cheap labor and capital of Europe, how much more needful that the industry which employs 40 per cent. of the nation's workers should be protected against the destructive competition of the fictitious products that pour unceasingly from the wide open mouths of the vociferous operators in the "price factories" of Chicago, New York, New Orleans and the other board of trade centers? The foreign manufacturer must have command of both labor and capital to produce the wares competing with our mills and

factories, but the only capital required by a dealer in fictitious farm products is a few hundred dollars, a good pair of lungs and an unlimited desire to secure reward without performing any service for the community. The only labor involved is inhalation and expiration.

While I am in no manner authorized to speak for other farmers, I can say that, having taken a great interest in this subject, I have been led to visit the States producing surpluses of grain and cotton in order that I might know how other producers looked upon this futures system. I have found 90 per cent. of all those with whom I have talked on the subject keenly appreciative of the evil effects of market methods now in vogue, and earnestly desirous that federal legislation should put a stop to the operations alike of the short-seller proper and the hedging produce dealer. I found about one in ten to twelve indifferent, and one occasionally that favored the system, just as an occasional farmer will be found who patronizes the "bucket-shop" as he formerly did the Louisiana lottery. Outside of the central cities I found merchants and millers very generally opposed to the system and desirous of its suppression.

If the products of the mills, forges, refineries, factories, lumbering establishments, the great quantities of goods and wares imported, the iron, the steel, the coal, the beef and the wool can be marketed without these pernicious methods, why not the wheat, the corn, the oats, the cotton and the pork?

These methods have destroyed everything like investment buying of the real products of the soil; they cause frequent and wide, and confidence-destroying fluctuations in price. Prices are put up for the purpose of selling paper contracts, and then, with equal facility, put down to buy them in from the country lambs whose margins are exhausted.

These fluctuations never benefit the producer, but on the contrary, injure him, as they are taken into account by the dealer when buying his produce, and the margin made wide enough to cover them. They also destroy in part the producer's power to borrow on his grain and cotton, as the lender requires a much wider margin when lending, a margin which shall cover all possible fluctuations during the currency of the loan.

This system has eliminated the independent country grain dealer in a remarkable manner, making of him but the commission agent, and often the tool of the great operator.

I have examined a copy of the bill before the Committee on Agriculture with very great care and find that it discriminates thoroughly and in the most equitable manner between the dealer in real and fictitious products, imposing its burthens upon the latter, and protecting the dealer in real products from the destructive competition of the short-seller and the speculative hedger, and it seems calculated to afford the needed protection to the nation's greatest industry. C. WOOD DAVIS.

## Government Report on Farm Animals.

The returns for January, 1896, show as the total number of horses 15,124,057, mules 2,278,946, milch cows 16,137,586, oxen and other cattle 32,085,409, sheep 38,298,783, and swine 42,842,759.

The average farm prices per head are estimated for horses \$33.07, mules \$45.29, milch cows \$22.55, oxen and other cattle \$15.86, sheep \$1.70, swine \$4.35. The aggregate values are for horses \$500,140,186, mules \$103,204,457, milch cows \$363,955,545, oxen and other cattle \$508,928,416, sheep \$65,167,635, swine \$186,529,745, grand total \$1,727,926,084.

In number, horses have decreased 4.8 per cent., mules 2.3 per cent., milch cows 2.2 per cent., oxen and other cattle 6.6 per cent., sheep 9.4 per cent., swine 3.0 per cent., since January 1895. The cotton States and a few of the Rocky Mountain States show an increase in horses and mules, otherwise the decrease is general. Milch cows are more numerous in the Northeastern or city-supply States, also in Minnesota, the Dakotas and westward, fewer elsewhere. Decrease in other cattle and

sheep generally distributed, except in the mountain region. Swine have increased generally throughout the East, South and West, with a falling off in the great central States.

In reported price per head, horses, mules and swine are lower than in January, 1895, while milch cows, other cattle and sheep are higher.

In aggregate value, horses have decreased 13.3 per cent., mules 7.0 per cent., sheep 2.3 per cent., and swine 15.0 per cent., during 1895, while milch cows have increased 0.4 per cent., and other cattle 5.4 per cent. The grand total of all live stock has fallen off \$91,520,222, or 5.0 per cent. from January, 1895; decline since January, 1894, 20.4 per cent.; since January, 1893, 30.4 per cent.

Estimated wool product of 1895, sheared, butchered and pulled, 309,748,000 pounds.

## HOW FRICTION IS OVERCOME.

What Roller Bearings and Ball Bearings are Doing for the Manufacturer and the Farmer.

The profits on manufactured articles are so small nowadays that manufacturers are compelled to adopt every means possible for saving labor, for taking advantage of every ounce of power and for preventing wear. In the larger factories this desired end is being beautifully accomplished by the application of roller bearings or ball bearings to the shafts, axles and gears of every class of machine, from delicate lathes and spindles to ponderous rolling mills. Roller bearings are employed where the weight and strain are considerable, and ball bearings where a very high rate of speed, under less pressure, is desired. In Albany, Troy, Rochester and Brooklyn, N. Y.; Paterson, N. J.; Attleboro, Mass., and other cities, street cars are run on roller bearings. The Delaware & Hudson Canal Co. has a train of five passenger cars that have already run over 150,000 miles on one set of roller bearings, at a net saving of power and coal of fully 30 per cent.

Roller bearings or ball bearings are used in shafting pulleys in dozens of large manufactories. These establishments report an average saving in power of from 25 to 50 per cent.

But without doubt, the most important use of roller bearings at the present day is their application to harvesting machines by the Deering Harvester Co., at Chicago. These bearings make the Deering binders two-horse machines, even in conditions which call for four horses on the old-line machines without roller bearings. They make the Deering mowers so light in draft that one man can draw the machine, cutting a full swath.

The roller bearings not only make the draft extremely light, but they lengthen the life of the machines and save repair bills by preventing wear on the moving parts.

A most interesting description of the use of roller bearings is contained in a pamphlet called "Roller and Ball Bearings on the Farm," which the Deering Harvester Co. is sending free to any farmer requesting it. It is decidedly worth reading.

The whole secret of the wonders accomplished by the "rolling bearings," whether they be rollers or balls, is that they change the ordinary sliding or scraping contact of the axle to rolling contact. To use a homely expression, these bearings "put roller skates onto the axles."

## 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:

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

Garden City—February 26-28, President Fairchild.

Iola—February 14, Prof. Failyer.

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

Much of life's misery is due to indigestion; for who can be happy with a pain in his stomach? As a corrective and strengthener of the alimentary organs, Ayer's Pills are invaluable, their use being always attended with marked benefit.

## Always

Taking cold, is a common complaint. It is due to impure and deficient blood and it often leads to serious troubles. The remedy is found in pure, rich blood.

"I am not very strong and sometimes need a tonic to help me battle against sickness. I find that two or three bottles of Hood's Sarsaparilla is just what I need. I have taken it occasionally for several years and do not have any doctors' bills to pay." MISS JANIE HIGGINS, 55 Beaufain St., Charleston, S. C. Remember

## Hood's Sarsaparilla

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

Hood's Pills easy to buy easy to take easy to operate. 25c.

## How to Puddle a Small Ditch.

EDITOR KANSAS FARMER:—Please say to those who are irrigating from pumps, that I find that a V-shaped trough drawn in a furrow a few times will puddle it so it will run water nearly as well as a wooden trough. It is a great help. I ran water fifteen rods in a few minutes where it took three days for it to get half way without.

Leoti, Kas. MILTON ST. JOHN.

CATARRH is a constitutional disease and cannot be cured by local applications. Hood's Sarsaparilla is a constitutional remedy; it cures catarrh because it purifies the blood.

HOOD'S PILLS are purely vegetable and do not purge, pain or gripe. Sold by all druggists.

## 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. 51

## \$400 in Prizes on Oats and Corn.

Last year we offered \$200 for the biggest yield on oats. 209 bushels Silver Mine was raised per acre. This year we offer \$200 more on oats, \$100 on Silver King Barley, a barley yielding in 1895 116 bushels per acre, and \$100 on Golden Triumph Yellow Dent Corn, the corn of your dreams!

What's Teosinte and Sand Vetch and Sacaline and Lathyrus and Giant Spurry and Giant Incarnate Clover and lots of such things? They'll make you rich if you plant a plenty. Catalogue tells you!

If you will cut this out and send it with 10 cents, postage, to the John A. Salzer Seed Co., La Crosse, Wis., you will get free ten grasses and grains, including above oats, barley, corn, spurry and their mammoth catalogue.

## Preparing Sod for Corn.

A farmer who takes great pains to plow under a sod for his corn crop and covers everything with the greatest care so that the herbage will decay and make food for the plants makes a lamentable mistake when he tears up the sod again, by using spike-tooth or the spring-tooth harrows, and leaves the grass roots on the surface to grow and make weeds and work for the hoe. There is but one implement which will work a plowed under sod in the best manner, and this is the "ACME" Pulverizing Harrow, Clod Crusher and Leveler, for with its long, curved cutters it cuts the land into slices and breaks up the surface, while it presses the sod firmly under it and leaves it in the very best condition and position for the use to which the farmer intended to put it, viz., a provision for feeding his corn crop. See advertisement on page 14.

## Ho! for Cripple Creek.

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

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

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

**Horticulture.**

**PRUNE THE GRAPE VINES NOW! HOW?**

Now is the time to prune grape vines, if this annual duty has not yet been attended to. Several methods of pruning and training have been advocated, and any of them is better than none, and yet no pruning is almost as good as indiscriminate cutting. The first point to remember is that the fruit grows from buds on last year's wood. The second point is that the vines usually provide a great many more of these buds and will generally set a great deal more fruit than they can bring to the perfection desired. In an exceptionally excellent paper on the grape, read before the State Board of Agriculture in 1895, Prof. Mason gave directions for pruning, which are the best ever published, because, besides being correct they are easily understood. These were published in the KANSAS FARMER last spring, but the editor is sure no better use can at this time be made of the needed space than to repeat Prof. Mason's remarks on this branch of the subject. He said:

"If the vines are rather young and small, two canes about three feet long will be all they should carry. At a year older, or with stronger vines, four canes may be put up, two on either side. Nothing is gained, however, by crowding young vines or allowing them to bear too much fruit while young and weak.

"When well grown, or say the third year from setting, five or six canes may be saved, arranged in a fan-like manner upon the lower wires.

"The pruning of vines is, to the beginner, the worst problem of grape-raising. With the tangle of vines found on the wires at the end of a good year's growth, it is not strange that one feels at an utter loss to know where to begin or what to take. No fixed rule can be laid down, easy as the different systems may appear on paper.

"Each vine must be given a little separate study. While a glance will show the expert what to do in each case, it will pay the beginner to take a little time to it. The natural thought is that the vine will be ruined by such severe pruning, and the tendency is to leave too much wood rather than to remove too much. I have seen very few vines injured by over-pruning.

"The time to prune is any time from the falling of the leaves in autumn till the sap begins to stir in the spring. A pair of shears good enough for the work on a few dozen vines can be bought at any hardware store at from 50 cents to \$1. If the vines are old, with large, old canes that should be removed, a pruning saw should also be provided.

"With a well-defined plan in mind of what sort of a vine you want to leave when pruned, take a good look over your first vine to see how nearly this plan can be carried out. Remember that the bearing wood, as it is called, is the young wood of the past season's growth. From the buds on these canes will push branches, next spring, which will set one, two, three, or even four, bunches of fruit near the base, and then continue to grow as a vine. What you want for bearing wood is a strong healthy cane, with firm, well-ripened wood, and sound, healthy buds. According to the age and strength of the vine, you want from two to six of these canes, two to four feet long, as well placed for fan-shaped arrangement as you can get them, and starting from the main vine as near the ground as can be selected.

"The stronger growth in grape vines always tends to the top, hence if you select your best canes regardless of position, many of them will be high up, and you will be working your bearing wood further away from the ground and would soon have it beyond the trellis entirely. Decide upon the canes you wish to leave, begin at the base of each, clip it clear of all tendrils and branches out to about four feet, or less if the wood is not well matured, and cut it off. Leave two or three short spurs of two buds each near the center at the base of the vine, to produce renewal canes for next year. When this

is done your pruning of the vine is completed. The rest of the task is simply to clear the vine and trellis of useless canes. No, your vine is not ruined, and do not allow your wife or anybody else to make you think it is.

"The prunings should be carefully gathered and burned, what you do not want to make cuttings of. There is a short, cylindrical, black beetle, dignified by the name of *Amphicerus bicaudatus*, which becomes a serious vineyard pest in some localities, working also on apple and some shade trees. Its work may be recognized by a round hole bored in the axil or forking of a branch. These beetles are harbored in old grape trimmings, and hence the importance of burning them.

"In tying up the canes they should be put on the two lower wires for the most part, and fastened in a somewhat curved position, rather than carried out straight. This slightly obstructs the flow of sap, and counteracts the natural tendency for the strongest growth to be made from the upper buds on the cane, while the lower ones suffer or do not start at all."

**Alfalfa in Orchards.**

EDITOR KANSAS FARMER:—I notice several inquiries in your paper, from subscribers, in regard to alfalfa in orchards. I have a dear experience in regard to it. About eight years ago I planted an orchard. It did well for four years, when I seeded to alfalfa, being recommended by others to do so. Now the trees are badly stunted and would undoubtedly have died had I not kept them well mulched. One of my neighbors lost nearly all of his trees by seeding to alfalfa. I have another orchard, planted two years later, in good thrifty condition and trees larger than former ones. I can show a number of thrifty orchards in this vicinity on very high ground where trees are kept in cultivation. I am also informed by a gentleman from Jefferson county, Nebraska, of orchards ruined there by seeding to alfalfa.

I invite any one to come here to see for himself. I value an orchard too highly to be trifled with, although they may do well where land can be irrigated. Weeds will grow a few months and die, but alfalfa grows the whole season, sapping the ground of moisture.

Alfalfa is a success here in the bottom land only. S. ERNST.  
Glen Elder, Mitchell Co.

**Several Seedling Peaches.**

EDITOR KANSAS FARMER:—In your last issue is an article on seedling peaches by Hans Rasmus, in which he speaks of the "Corning peach reproducing itself from seeds." Now, Mr. Editor, I am greatly in favor of peach propagation from seeds, and believe that peach propagation from seeds will generally give satisfaction. True, it may not always happen that you will get the same variety, but I assert that it will pay to try the seeds of select varieties and that in nine out of ten cases satisfactory results will follow.

Some twenty-five years since, Mr. Ryus, of this county, planted an orchard of some 200 peach seedlings, from Illinois-grown fruit, and the result was very satisfactory, all having the types of parents.

About the same time, Maj. Z. S. Ragan experimented with a Smock Free. On eating a very fine specimen, he found the pit split, and that it contained two seeds. These he carefully planted, marking same. The result was two Smocks, but one was a cling. They were the same in size, color and nearly so in quality.

Some seven years since, I received a box of exceptionally fine Salway from Olden, Mo. We grew this variety in large blocks at that place. I planted 150 trees from these seeds and to-day have 100 trees in bearing. All are fine, large, yellow peaches, having distinct Salway parentage, yet differing in time of ripening from three to four weeks. Quite a number are clings, and this is the greatest objection, as clings do not command as good price as "freers." I am still investigating along this line. I have some 200 selected seed in general of a number of varieties that I hope to fruit.

I would not be understood as trying

to discourage the present system of peach culture, but that those who are unable to secure budded stock can hope to eat good peaches (their own seedlings), by a little effort. I would suggest that only good peaches be used as seed, and as far as practical avoid clings for planting. I would avoid planting the extra early sorts, as there is little or no demand for the extra earlies, as none of them ripen through or evenly. You may in this way secure something of still greater value.

A neighbor of mine has produced a seedling (as yet unnamed) that for market value has no competitor for its season. What is most needed is a medium large, red-cheeked, white-fleshed good quality peach to follow Old Mixon Free. I think he has it. Rosedale, Kas. F. HOLSINGER.

**Italians vs. Black Bees.**

Having noticed articles on bee culture in the KANSAS FARMER for some time, I decided to write you in regard to the Italian bee. Do you think them more profitable than the common black bee, and when is the best time to purchase them? I have plenty of alfalfa pasture close at hand.

Mrs. O. R.

Utopia, Kas., January 24, 1896.

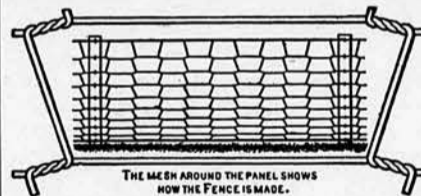
In answer to above inquiry, I will say, that the superiority of the Italian bees over the common or black bees is not generally well understood. We would just say that if persons having the black bees would substitute Italians in their stead, they would soon give you to understand that something unusual, in the apiary, had taken place. In the first place, Italian bees are absolute proof against moth worms, which are so destructive to black bees. Italians will go farther for honey, and carry larger loads; they will work in cooler weather, work earlier in the mornings and later in the evenings. Italians have longer tongues and can reach the nectar in flowers that the blacks cannot. Italians will stick close to the comb, and are gentle to handle, while the blacks will run over the combs and entirely leave them while handling, and will sting you at every opportunity. To give the Italian bees credit over the black with double the amount of honey and double the amount of increase does them hardly the credit due them. Our bee-keepers now number in the thousands, and not a single apiarist is reported as keeping black bees.

The best time to start in bees is in early spring. You do not then run the risk of wintering, and you have the full benefit of the bees the first year. If your bees have access to plenty of alfalfa pasturage they should store you two or three hundred pounds of honey per colony and double in numbers.

Larned, Kas. A. H. DUFF.

For cure of rheumatism, neuralgia, cuts, sprains, burns, stings, chilblains, sciatica, and lumbago, use Salvation Oil.

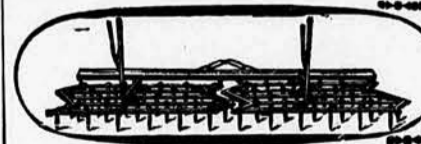
**KEYSTONE WOVEN WIRE FENCE**



Combines more points of merit than any other fence made. A trial will convince you. Write for catalogue.

KEYSTONE WOVEN WIRE FENCE CO., PEORIA, ILL.

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



AGENTS, KEYSTONE MANUFACTURING CO., KANSAS CITY, MO.

**GRAPE VINES.**

Largest Stock in the World. Small Fruits. Introducer of unrivalled new Red Jacket Gooseberry & Fay Currant. Catalogue free. Geo. S. Josselyn, Fredonia, N. Y.

**Evergreens and Forest Trees**

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

**POTATOES \$1.50 a Bbl.**

Largest growers of POTATOES for Seed in America. The "Rural New Yorker" gives Salzer's Early Wisconsin a yield of 725 bushels per acre. Prices dirt cheap. Our great Seed Book, 148 pages and sample 14-Day Radish for 6c. postage. JOHN A. SALZER SEED CO., Latross, Wis.

**NEW IMPERIAL TOMATO**

COLE'S Early Water Melon and Cincinnati Market Radish, three leading Vegetable Novelties, 1 pkt. each for only 10 cts. Or three Flower Novelties—Pansy Large German, Cosmos Giant Perfection, and Zinnia New Giant, 1 pkt. ea. for only 10c, or the two collections together with a pkt. of **CUPID**, the new dwarf Sweet Pea, for 30c, prepaid, worth 60c. Our Handsome Garden Annual Free. Write for it. COLE'S SEED STORE, - PELLA, IOWA.

**MONEY MAKING SEEDS**

Every planter wants them. We sell WARRANTED BEST SEEDS CHEAP. HALF REGULAR PRICE. Large pkts. 2 lbs. & 5 lbs. with orders. Send for FINEST BOOK PRINTED, mailed FREE. Market Gardeners ask for Wholesale Price List. ALNEER BROS., No. 24 1/2 Ineer Blk, Rockford, Ill.



**FREE SEED ONE CENT A PACKAGE, and up. Cheap by oz and lb. A lot of extra packages with every order. Send for catalogue. R. H. SHUMWAY, - Rockford, Ill.**

**Sweet Potatoes**

Our Vines "Gold Coin" Prolific Sweet Potatoes are MARVELOUS in yield and cheapness of production, and superior in quality. The Indiana Farmer, our home farm paper editorially highly endorses them.

**600 BUSHELS PER ACRE**

is a Small Yield for them.

We tell you all about them in our handsome new catalogue which we will mail FREE if sent for at once. No garden will be complete without them. Have them to sell to your neighbors next year.

THE HUNTINGTON SEED CO. INDIANAPOLIS, IND.



**SEEDS SPECIAL OFFER**

Made to Build New Business. A trial will make you our permanent customer.

**A Vegetable Garden for the cost of Postage** (Premium Collection)—Radish, 10 varieties; Lettuce, 9 kinds; Tomatoes, 7 finest; Turnips, 5 splendid; and Onions, 6 best varieties.

SEND TEN CENTS to cover postage and packing and receive this valuable collection of seeds postpaid. R. W. Laughlin, Ada, O. writes: "Have planted Buckbee's Seeds for years, with the best of success. It is a grand business to handle such a good grade of seeds."

Write to-day and receive my new Seed and Plant Book; the best published. I guarantee to please. H. W. BUCKBEE, Rockford Seed Farms, Box 526 ROCKFORD, ILL.

**LEAN'S ALL STEEL HARROW**

UNEQUALLED for all kinds of farm work. Saves to cost first season on growing crops. All steel, no castings to break—strongest and simplest lever adjusting arrangement made. Write for **RODERICK LEAN MFG. CO.** descriptive circular. 68 Park St., Mansfield, Ohio.

**Aren't You TIRED**

trying to meet falling prices by rising earlier and working harder? You might as well stop,—it's not to be done that way. Get tools that do a week's work in a day, and raise three to bushels in place of one. The PLANET JR. Farm Tools will do it. One single tool combines a hand drill, plow, cultivator, rake, and a wheel hoe that will beat six men. There are 20 others as good. Send for the PLANET JR. Book, (it's free), and give your mind a day's work. S. L. ALLEN & CO., 1107 Market St., PHILADELPHIA.

### In the Dairy.

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

#### Feeding Fat Into Milk.

A subscriber at Papineau, Ill., asks this question: "Does the special feeding of cows increase in them the percentage of butter fat?"

It is the common opinion of dairymen that the food exerts a great influence upon the quality of the milk, although experiments have long since shown that, in most cases, the quality of the milk is dependent upon the individuality of the cow and is very little affected by food. The first experiments leading to these conclusions were made in Germany, but several of the American experiment stations have operated along the same lines, and in general have confirmed the results of the foreign experimenters. These experiments, for the most part, have been made to show the influence of rations relatively rich or poor in nitrogen upon the quality of the milk. Comparatively few experiments have been made to show the influence of rations relatively rich or poor in fat upon the milk. There have, however, been some experiments made upon feeding foods rich in fat.

The most important of those made in this country were made by Wood, of the New Hampshire Agricultural Experiment Station, in which cottonseed oil, palm oil, coconut oil, oleo oil and stearin were added to a ration composed of hay and ensilage and a grain ration of eight pounds of equal parts of ground oats and middlings. The oils were fed in turn to three different cows, in periods of two weeks each. Daily analyses of the milk were made, and the conclusions arrived at were as follows: "That the first effect of an increase of fat in the cow's ration was to increase the per cent. of fat in the milk." "That with the continuance of such a ration, the tendency was for the milk to return to its normal condition." "That the increase in fat is not due to the oils, but to the unnatural character of the ration." "That the results of feeding oils tend to confirm the conclusions that the composition of a cow's milk is determined by the individuality of the cow, and that although an unusual food may disturb for a while the composition of the milk, its effect is not lasting."

On the other hand, some experiments made by Mr. H. VanDresser, of Cobleskill, N. Y., showed a remarkable increase in the yield of fat by the addition of tallow to the ordinary ration. Mr. VanDresser's methods and results were as follows: The cows, thoroughbred Holsteins, had been receiving a ration of thirty pounds of ensilage per day with hay at noon, with a grain ration of six pounds of a mixture of two parts of wheat bran and one part of cottonseed meal and corn meal. The skim-milk was also fed back to the cows. At the beginning, one-quarter of a pound per cow per day of clean beef tallow was shaved up and mixed with the grain ration. The cows ate the tallow readily, and in the course of two weeks the amount was increased to two pounds per day. At the end of five weeks, a week's butter test was made of each cow, and resulted in a gain of from 30 to 98 percent. The result of this experiment was so striking and so contrary to similar experiments, that the Cornell University Station deemed it worth while to carry the investigations a little further. Five cows were selected and fed nearly the same as those just described, belonging to Mr. VanDresser. The fat was determined in each milking separately by the Babcock test. The experiment was continued until the end of the tenth week, when the tallow was discontinued and the milk weighed and fat determinations made for two weeks longer. From Bulletin No. 92 of the Cornell Station, the table which is appended notes in general that there was no effect in either the yield of milk or percentage of fat that could be traced to the feeding of the tallow. During the first two or three weeks the percentage of fat rose slightly, but toward the close the per cent. of fat fell slightly with some of the animals. In conclusion it says:

"In this quite extended trial there has been no increase in the fat in the milk by feeding tallow to the cows in addition to a liberal grain ration." For a period of six weeks these cows ate two pounds per head per day of tallow. It also appears from tests made at other stations that there is more in the type of cow than in feed, and it seems that the only way to increase the amount of fat is by increasing the amount of milk. Since the per cent. of fat cannot be augmented by feeding, we can arrive at the same result by liberal rations, which will increase the flow of milk and thereby increase the total yield of fat.

#### About Young Heifers.

If you keep the young heifers off in one corner of the stable, and feed and care for them after all the other animals have been attended to, and that in an indifferent manner, they are likely to prove poor property when they become milkers. It is a popular fallacy that young stock require only second-class feed and second-class care. I tell you, heifers must be treated on equal terms with milch cows. All the future usefulness of a milk animal may depend on how she fares before her first pregnancy. True, she does not need a milk-forming diet, but she requires a tissue and a bone-forming one, for a future reserve force when she becomes a cow.

The amount of flesh on a young animal's back does not necessarily represent physical force, vitality, or sound tissue. It may be merely fat, without a relative development of sinew, bone and muscle. A heifer will stand more exercise than a cow, but she wants just as warm a stable, and should not be made to bow down and worship the straw stack. Plenty of good hay with a supplement of roots, or, in this winter of hay scarcity, ensilage and cut straw, with a light grain addition, form excellent rations. The object should be to combine foods so as to get growth of a sound, permanent character.—*Ex.*

#### A New Milk Fraud.

A new fraud is practiced by milk dealers, which cannot be reached under existing statutes, according to the annual report of the Massachusetts Dairy Bureau. It appears that certain milk, when tested, has the required amount of milk solids, but the percentage of fat is very low. It has been found that state of affairs is due to the addition of a condensed skimmed milk, after the cream has been removed by the dealer. The report says that the dealer practicing this fraud cannot be successfully prosecuted, because it cannot be proved that the cream has been removed, and the addition of the condensed skimmed milk is not an addition of "a foreign substance" prohibited by statute. It appears that a concern in New York is doing a thriving business in furnishing dealers with condensed skim-milk.

#### Sorghum for Milch Cows.

EDITOR KANSAS FARMER:—I want information about feeding sorghum fodder to milch cows. Does it diminish the flow of milk? I have been told it does.

If it is a good fodder ration to be used with bran and other ground feed, I would prefer it to anything else, for several reasons, and will plan to have it in future if I can find it is the thing to do.  
Baldwin, Kas. A. AULT.

#### A Manual of Instruction in Apiculture.

"The Honey Bee—A Manual of Instruction in Apiculture," by Frank Benton, M. S., of the Division of Entomology of the Department of Agriculture, is just issued.

The apiculture industry in the United States is practically a development of the last forty years, although isolated individuals were engaged in this work prior to that time. The importance of the industry at the present day is not generally realized, and the following figures will probably be sur-

prising to many well-informed individuals:

Apiarian societies in the United States,	110
Apiarian journals.....	9
Steam factories for the manufacture of bee-hives and apiarian implements..	15
Honey produced in the United States in 1889 (according to United States Census Report) pounds.....	14,702,815
Honey produced in the United States in 1889 (according to United States Census Report) pounds.....	63,894,186
Persons engaged in the culture of bees (estimated).....	300,000
Honey and wax produced, at wholesale rates (Eleventh Census).....	\$ 7,000,000
Mr. Benton's estimate of the present annual value of apiculture products... \$20,000,000	

Prof. L. O. Howard, the Entomologist, says that "the constant demand for information concerning bee culture has for a long time shown the need for such a public manual," and the author's aim is stated by himself as follows: "It is designed to make the practical management of an apiary plain to those whose acquaintance with the subject is limited, and to direct such as may find in it a pleasant and profitable occupation into a system of management which may be followed on an extensive scale with the certainty of fair remuneration for the labor and capital required." The chapter headings embrace such subjects as: Classification of the bee; kinds of bees composing a colony; bee products and descriptions of combs; development of brood; quieting and manipulating bees; establishing an apiary; hives and implements; bee pasturage; spring manipulation; securing surplus honey and wax; rearing and introducing queens; increase of colonies; wintering bees; diseases and enemies of bees; brief list of books and journals relating to apiculture.

This bulletin, which is No. 1, new series of the Division of Entomology, has 119 pages, 12 plates and 76 text figures. The edition is limited by the law of January 12, 1895, to 1,000 copies. This is barely sufficient to supply the libraries on the Department's list, the agricultural colleges and those to whom the Department is indebted; a limited number, however, will be disposed of by the Superintendent of Documents, Union building, Washington, D. C., at 15 cents per copy.

### Heart Disease Cured

By Dr. Miles' Heart Cure.

Fainting, Weak or Hungry Spells, Irregular or Intermittent Pulse, Fluttering or Palpitation, Choking Sensation, Shortness of Breath, Swelling of Feet and Ankles, are symptoms of a diseased or Weak Heart.



MRS. N. C. MILLER.

Of Fort Wayne, Ind., writes on Nov. 29, 1894: "I was afflicted for forty years with heart trouble and suffered untold agony. I had weak, hungry spells, and my heart would palpitate so hard, the pain would be so acute and torturing, that I became so weak and nervous I could not sleep. I was treated by several physicians without relief and gave up ever being well again. About two years ago I commenced using Dr. Miles' Remedies. One bottle of the Heart Cure stopped all heart troubles and the Restorative Nervine did the rest, and now I sleep soundly and attend to my household and social duties without any trouble.

Sold by druggists. Book sent free. Address Dr. Miles Medical Co., Elkhart, Ind.  
**Dr. Miles' Remedies Restore Health.**

Pain often concentrates all its Misery in

## RHEUMATISM

Use at once **ST. JACOBS OIL**

if you want to feel it concentrate its healing in a cure.

### Over Thirty Years Without Sickness.

Mr. H. WETTSTEIN, a well-known, enterprising citizen of Byron, Ill., writes: "Before I paid much attention to regulating the bowels, I hardly knew a well day; but since I learned the evil results of constipation and the efficacy of



### AYER'S

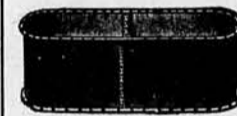
Pills, I have not had one day's sickness for over thirty years

—no! no attack that did not yield to this remedy. My wife had been, previous to our marriage, an invalid for years. She had a prejudice against cathartics, but as soon as she began to use Ayer's Pills her health was restored."

## AYER'S Cathartic Pills

Medal and Diploma at World's Fair.

To Restore Strength, take Ayer's Sarsaparilla.



### Steel Tanks

Galvanized, in all sizes, round, oblong or square  
E. B. WINGER,  
(R) Chicago.

IF YOU HAVE A  
**Wheel in Your Head**  
We can work it out for you. We make Patterns, Models, Castings, etc.  
TOPEKA FOUNDRY,  
Cor. J. and Second Sts., Topeka, Kas.

**THE WELL DRILLS**  
awarded Highest Medal at the World's Fair.  
All latest improvements. Catalogue free.  
F. C. AUSTIN MFG. CO., CHICAGO, ILL.

**Portable Well Drilling MACHINERY**  
Established 1867. Covered by patents. Machines drill any depth both by steam and horse power. We challenge competition. Send for free illustrated catalogue.  
Address, **KELLY & TANEYHILL, WATERLOO, IOWA.**

**OIL Burner**  
**CHAMPION**  
One-half cheaper than wood or coal. No smoke. Goes in any stove or furnace.  
Want Agents on salary or commission. Send for catalogue of prices and terms. No wicks used.  
**NATIONAL OIL BURNER CO., 934 CEDAR AVE., CLEVELAND, O.**

**LOUDEN'S HAY & GRAIN SLING. IT WILL PAY**  
to get our latest Catalogue of the greatest line of  
**IT CLEANS THE RACK**

**HAY TOOLS** on Earth. A postal will bring it. Also valuable information about Haying and Hay Bams. Our slings handle straw, fodder and all kinds of forage, and work with any elevator. Now is the time to prepare for harvest. Write at once. Address **LOUDEN MACHINERY CO., Fairfield, Iowa.**

**THE OLD RELIABLE PEERLESS FEED GRINDERS**  
Grinds more grain to any degree of fineness than any other mill. Grinds ear-corn, oats, etc., fine enough for any purpose. Warranted not to choke. We warrant the Peerless to be **THE BEST AND CHEAPEST MILL ON EARTH.** Write us at once for prices and agency. There is money in this mill. Made only by the **JOLIET STROWBRIDGE CO., JOLIET, ILL.** Jobbers and Manufacturers of Farm Machinery, Carriages, Wagons, Windmills, Bicycles, Harness etc. Prices lowest. Quality best.

The Composition and Cooking of Meats.

During the past two years the Department of Agriculture has been making nutrition investigations, by Congressional provision, and some of the results have already been published.

Application for this bulletin should be made to the Secretary of Agriculture, Washington, D. C.

Beware of Ointments for Catarrh that Contain Mercury,

Mercury will surely destroy the sense of smell and completely derange the whole system when entering it through the mucous surfaces.

"Farmer's Ready Reference, or Handbook of Diseases of Horses and Cattle." A few copies yet on hand that will be sold for \$1 each, by mail.

Nickel Plate Road,

the shortest line from Chicago to New York and Boston via Fort Wayne, Cleveland and Buffalo, operates a perfect passenger equipment with a first-class road-bed and an exceptional service of Wagner Sleeping and Buffet Cars.

Millions of Gold

In sight at Cripple Creek, Colo. Only twenty-three hours from Topeka by the Santa Fe Route, the only broad-gauge route passing right by the "Anaconda" and all the famous mines.

A Splendid Business Offer.

The FARMER takes pleasure in calling the attention of its readers to Perine's subsoil plows. That subsoiling is no longer an experiment has been satisfactorily proven and demonstrated.

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

Address all communications and make remittances payable to PERINE'S PLOW WORKS, Topeka, Kas.

HOME TREATMENT FREE.

Catarrh Cured by Thousands Under Dr. Hartman's Free Treatment.

Catarrh of the nose and head produces discharge from the nose, sneezing, and pain in the eyes and forehead, weak, and sometimes watery eyes, and occasionally loss of memory.

To all such people Dr. Hartman's treatment comes as a great boon. It is only necessary to send name and address to Dr. Hartman, Columbus, Ohio, and complete directions for first month's treatment will be sent free.

Address The Pe-ru-na Drug Manufacturing Company, of Columbus, Ohio, for a copy of their latest catarrh book, instructively illustrated, and contains sixty-four pages of the latest information on catarrhal diseases.

Special Want Column.

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time, will be inserted in this column, without display, for 10 cents per line, of seven words or less, per week.

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

THE BLOOD IS THE LIFE.—For \$1 will send roots and herbs to make one quart Blood Purifier and one pint of Cough Syrup. Directions sent. C. E. Coburn, Box 178, Lynn, Mass.

WANTED—A good, trusty man, single preferred, for general work on a farm, understand feeding and care of stock.

SHORT-HORN BULLS—Cruckshank-topped, for sale. Choice animals of splendid breeding. Address Peter Slim, Wakarusa, Shawnee Co., Kas.

IRRIGATION—STRAWBERRIES.—Strawberry plants, any variety grown. Lowest prices. Plants guaranteed as to variety and condition.

WANTED—Party with \$1,500 to embark in the circus business. Money invested doubled in a few weeks.

FOR SALE—Mammoth Bronze turkeys from prize-winning stock. Young ones weighing twenty-five pounds. Harry Killough, Richmond, Kas.

40 IMPROVED FARMS FOR SALE—In Morris county, Kansas, on the installment plan. One-eighth cash and one-eighth each year till paid.

FOR SALE—St. Lambert Jersey bull calf, 11 months old. He is very strong and robust, very dark fawn, nearly black, with a streak of squirrel gray from his head to just back of shoulder.

SEED POTATOES AND CORN.—Early Ohio seed corn from Northern stock, large and fine, at 50 cents a bushel.

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

EGGS FOR HATCHING.—Do not forget us. George Topping, Cedar Point, Kas.

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

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

FOR SALE—Kaffir, Jerusalem and Brazilian flour corn, Orange and Amber cane seed, \$1 a bushel, six bushels for \$5. Elden Shaw, Kanopolis, Kas.

FOR SALE—Galloway bulls, yearlings, two-year-olds and three-year-olds. Write for description and prices. Address W. Guy McCandless, Cottonwood Falls, Kas.

FOR SALE—Short-horn bull, Gen. Weaver No. 115823, deep red, 8 years old, sired by Master Primrose, bred by W. A. Harris, Linwood. Gen. Weaver was good enough to take first prize over twenty-three competitors at Kansas City Inter-State sale.

SHOW BULL FOR SALE—Imp. Buccaneer 106588, fit to head any Short-horn herd. D. P. Norton, Council Grove, Kas.

SEED SWEET POTATOES FOR SALE—All leading varieties. Plants in their season. Correspondence solicited. Address B. F. Jacobs, Box 122, Wamego, Kas.

A GREAT BARGAIN—For the person who buys at once the sixty-two acres of deeded land adjoining the rapidly rising town of Manchester, Grant county, Oklahoma.

SPECIAL WANT COLUMN--CONTINUED.

WANTED—Buyers for Large English Berkshires and improved types of Poland-Chinas, from prize-winners, at farmers' prices.

WANTED—Readers of the KANSAS FARMER to try our "Special Want Column." It is full of bargains and does the business.

ORDER NOW—Barrad Plymouth Rocks exclusively. Eggs in season, \$1 for fifteen. Mrs. F. A. Hargrave, Richmond, Kas.

FOUR STANDARD-BRED STALLIONS—For sale or trade. Good individuals, with and without records. For particulars address Fred Young, Kansas City, Kas.

FOR TRADE—A few first-class Cleveland Bay and Yorkshire Coach stallions and mares. Make offers to Stericker Bros., Springfield, Ill.

CANE SEED FOR SALE—Nice, clean seed; make offers, sacked, here. Wanted—Your address on a postal card for my catalogue of strawberry and all small fruit plants.

FOR SALE—B. P. Rocks at \$1 each where more than one is wanted. Mrs. E. E. Bernard, Dunlap, Morris Co., Kas.

FOR SALE—Seven jacks, eight jennets, S. C. B. Leghorn eggs. H. C. Staley, Rose Hill, Kas.

2,000 BUSHELS SEED SWEET POTATOES! For sale. Ten best kinds. Also plants in their season at bed-rock prices.

TO TRADE FOR STOCK—Southeast quarter section 35, 27, 17, Kiowa county, Kansas. Also lot 1, block 58, Chandler, Oklahoma.

STRAWBERRY, RASPBERRY AND BLACKBERRY plants at lowest prices. J. C. Banta, Lawrence, Kas.

FOR SALE—Light Brahma roosters, for \$1 each. Eggs \$1 for 15, \$2.50 per 100. Mrs. N. VanBuskirk, Blue Mound, Kas.

1857 For price list of reliable Nursery 1896 stock, address W. E. BARNES, Vinland, Douglas Co., Kansas.

T. H. BIRCHER, CAIRO, KAS.—Breeder of thoroughbred Silver Wyandottes and Irish Pit Games. A few fine birds for sale. Eggs in season.

WHITE HOLLAND—M. B. TURKEYS—Cheap if ordered soon. R. G. Mason & Co., Kirksville, Mo.

FOR A PRACTICAL BUSINESS EDUCATION address Coon's National Business College, Kansas City. Self-help furnished students of limited means.

ALFALFA CLOVER.—Just received, a car-load choice seed. For prices address Topeka Seed House, 306 Kansas Ave., Topeka, Kas. S. H. Downs, Proprietor.

BROWN DHOORA—Seed for sale at 75 cents per bushel. E. Christenson, Ellis, Kas.

SORGHUM SEED FOR SALE.—For prices, write J. H. Foote, Fort Scott, Kas.

FOR EXCHANGE—Well-bred horse stock, for ages, for farm or cheap southwestern Kansas land. W. G. Baker, Ellsworth, Kas.

HEREFORD BULL FOR SALE—Some fine ones coming yearlings, pure and grades. W. G. Baker, Ellsworth, Kas.

WANTED—Sorghum and alfalfa seed, one M. B. gobbler and one peahen, in exchange for pure-bred Poland-Chinas or Light Brahmas. J. H. Taylor, Pearl, Kas.

WRITE—To Alex. Richter, Hollywood, Kas., for information concerning sub-irrigation. Enclose 2-cent stamp for reply. Manufacturer of galvanized sub-irrigation pipe.

PRIZE-WINNERS—Leghorn, Langshan, Plymouth Rock and Minorca fowls and Yorkshire swine, bred in the purple. Pure, new-crop alfalfa seed for sale. James Burton, Jamestown, Kas.

WANTED—Sale bills, horse bills, catalogues and other printing. A specialty at the Mail Job printing rooms, 900 North Kansas Ave., North Topeka.

FOR SHORT-HORN BULLS—Calves and yearlings, extra fine, write D. P. Norton, Council Grove, Kas.

SEVEN FIRST-CLASS BLACK JACKS—For sale or trade. Prices reasonable. Sam Welchshbaum, Ogden, Kas.

SEND TO ARLINGTON NURSERY—Arlington, Reno Co., Kas., for surplus price list. On account of old age and falling health, I will sell the whole nursery, either with or without the land, at a great bargain.

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

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

Advertisement for Dr. Kay's Renovator, a cure for various ailments. Includes a testimonial from J. H. Brunner and a list of symptoms treated. Price: 25 cents and \$1. Sold by Swift & Holiday Drug Co.

Advertisement for Wolverine Hog Ringer and Rings. Best and cheapest on the market. Ask your hardware dealer for them, and insist on having the best. Heesen Bros. & Co., Patentees and Mfrs., Tecumseh, Mich.

SPECIAL WANT COLUMN--CONTINUED.

WANTED—To sell or exchange the Percheron stallion by Brilliant, bred by Dunham, of Illinois. O. P. Updegraff, Topeka, Kas.

FOR SALE—One hundred and sixty acre farm, one and a half miles from Bushong station, Lyon county, Kansas. Good spring. Price \$8 per acre. J. B. McAfee, Topeka, Kas.

BLACK RICE CORN—King of non-saccharine sorghums; 5 cents pound; \$1 per bushel of fifty pounds; \$1.50 per 100 pounds. Write for prices on Kaffir, peanuts and Brazilian flour corn. J. W. Henderson, Medford, Okla.

KAFFIR, MILLO MAIZE, MILLET, SORGHUM seed, each 35 cents per bushel, sacked. Black rice corn \$1. Willis K. Folks, Wellington, Kas.

THE SENECA NURSERY—To reduce an immense stock of apple, pear, plum, cherry and peach trees, and all other stock, will accept orders until March 1, 1896, at just one-half of regular list prices.

Salesmen Wanted!

\$100 to \$125 per month and expenses. Staple line; position permanent, pleasant and desirable. Address, with stamp, King Mfg. Co., F 29, Chicago, Ill.

VETERINARY SURGEON.

D. U. B. MCCURDY, Veterinary Surgeon. Graduate Ontario Veterinary college, Toronto, Canada. Can be consulted on all diseases of domestic animals at office or by mail. Office: 114 West Fifth Street, Topeka, Kas.

Southern Farms, Mills, Mineral Lands, Etc., for sale, rent and exchange. Geo. E. Crawford & Co., Richmond, Va.

Carnahan's Tree Wash and Insect Destroyer

Destroys the bore worm and apple root louse, protects the plum from the sting of the curculio and the fruit trees from rabbits. It fertilizes all fruit trees and vines, greatly increasing the quality and quantity of the fruit.

100,00 for a five-acre farm, covered with wood, in Southern New Jersey; close to railroad; finest markets in the world; especially adapted for small fruits, poultry, vegetables, etc.

Kansas Tannery

ESTABLISHED IN 1889. Does a general tanning business, including robes, rugs, etc. Tanning Galloway hides for robes a specialty. First-class work, reasonable prices.

The Western Trail

is published quarterly by the Chicago, Rock Island & Pacific Railway. It tells how to get a farm in the West, and it will be sent to you gratis for one year.

JOHN SEBASTIAN, G. P. A.

"JONES HE PAYS THE FREIGHT," Farm and Wagon

United States Standard. All Sizes and All Kinds. Not made by a trust or controlled by a combination. For Free Book and Price List, address JONES OF BINGHAMTON, Binghamton, N. Y., U. S. A.

\$3 A DAY SURE.

Send us how to make \$3 a day; and we will show you how to make \$3 a day; absolutely sure; we furnish the work and teach you free; you work in the locality where you live. Send us your address and we will explain the business fully; remember we guarantee a clear profit of \$3 for every day's work; absolutely sure; write at once. ROYAL MANUFACTURING CO., BOX A B, DETROIT, MICH.

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.

SICK HOG.—I have a hog that had the cholera and seemed to get well, but it got sore between the toes and swelled up as big as a man's arm; and one hoof got loose and one of the bones is coming out, and now the other foot is getting the same way.

WART.—Please give me a cure for a wart on a horse's leg.

Answer.—Some warts are easily cured and some are very difficult to get rid of.

SICK COW.—I have a Jersey cow, 6 years old, that slobbers when she eats and is losing flesh rapidly.

ENLARGED KNEE—SICK MARE.—(1) I have a bull 2 years old that had one knee begin to enlarge last August and now it is about a third larger than the other one and has become hard.

SPAYING HEIFERS.—I would like information in regard to spaying heifers. What is the best age to spay? What season of the year is best? What is the risk? How many can a man spay in a day? Is the operation a difficult one to perform?

Answer.—The most profitable age for spaying cattle is at, or under one year, as then you get the benefit of growth after the operation, which makes quite a difference in the size and shape of the animal.

Chicago Live Stock. CHICAGO, Feb. 17.—Cattle—Receipts, 14,000; market strong to higher; fair to best beefs, \$3.50@4.00; stockers and feeders, \$2.75@3.00; mixed cows and bulls, \$1.50@3.65; Texas, \$3.00@3.90.

St. Louis Live Stock. ST. LOUIS, Feb. 17.—Cattle—Receipts, 3,800; market active and firm; native steers, \$3.10@4.50; Texas steers, \$2.50@3.60.

MEN of all AGES



Quickly, Thoroughly, Forever Cured. Four out of five who suffer nervousness, mental worry, attacks of "the blues," are but paying the penalty of early excesses.

ERIE MEDICAL CO., Buffalo, N. Y.

Horse Owners! Try GOMBAULT'S Caustic Balsam

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUCCESSES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish.

MARKET REPORTS.

KANSAS CITY, Feb. 17.—Cattle—Receipts, since Saturday, 4,656; calves, 50; shipped Saturday, 1,540 cattle, 1 calf. The market was steady to strong. The following are representative sales:

Table with columns for No., Ave. Price, No., and Ave. Price. Lists various types of beef steers and their market prices.

TEXAS AND INDIAN STEERS. 20.....1.187 \$3.50 10.....1.077 \$3.40 21.....1.116 3.40 43.....1.090 3.50

WESTERN STEERS. 28.....1.217 \$3.65

SOUTHWESTERN STEERS. 50.....1.093 \$3.50 24.....1.054 \$3.33

ARIZONA STEERS. 30 fd.....1.166 \$3.30 21 fd.....1.072 \$3.40

TEXAS AND INDIAN COWS. 25 hf.....933 \$3.40 6.....925 \$3.15

COWS AND HEIFERS. 18.....900 \$3.40 18.....782 \$3.25 6.....925 3.10 23.....1,117 3.10

STOCKERS AND FEEDERS. 54.....607 \$3.80 1.....600 \$3.75 80.....430 3.55 41.....670 3.55

Hogs—Receipts since Saturday, 5,228; shipped Saturday, 921. The market was fairly active at 5c lower. The following are representative sales:

Table with columns for No., Price, No., and Price. Lists various types of hogs and their market prices.

Sheep—Receipts since Saturday, 2,249; shipped Saturday, 288. The following are representative sales:

Table with columns for No., Price, No., and Price. Lists various types of sheep and their market prices.

Horses—Receipts since Saturday, 218; shipped Saturday, 77. Not much business was transacted at the horse and mule market to-day.

Chicago Grain and Provision. Feb. 17. Opened High'st Lowest Closing

Table with columns for Grain type, Opened, High'st, Lowest, and Closing. Lists prices for various grains like wheat, corn, and oats.

Kansas City Grain. KANSAS CITY, Feb. 17.—Wheat here met with very little demand and prices were irregularly lower.

Receipts of wheat, 54 cars; a year ago, 12 cars. Sales were as follows, on track: Hard, No. 2, 6 cars 66c, 1 car 64½c; No. 3, 1 car 56c, 3 cars 55c, 1 car 50c, 1 car 48c, 1 car 47c; No. 4, 1 car 48c, 2 cars 46c, 2 cars 45c, 1 car 44½c, 2 cars 44c, 1 car 40c; rejected, 1 car 40c; no grade, nominally 30@35c.

Receipts of corn, 96 cars; a year ago, 46 cars. Sales by sample on track: No. 2 mixed, 24 cars 22½c; No. 3 mixed, nominally 22c; No. 4 mixed, nominally 21c; white, No. 2, 6 cars 23½c, 3 cars 23½c, 4 cars 23½c, 3 cars 23½c.

Receipts of oats, 14 cars; a year ago, 3 cars. Sales by sample on track: No. 2 mixed oats, 1 car 17½c, 2 cars 17½c, 1 car 17c; No. 3, 2 cars 17c, No. 4, 1 car 16½c, 1 car 16c; no grade, nominally 14½c; No. 2 white, 4 cars fancy 20½c, 5 cars 20c; No. 3 white, 5 cars 19c, 3 cars 18½c.

Hay—Receipts, 101 cars; market very dull. Timothy, choice, \$11.00@11.50; No. 1, \$10.00@10.50; No. 2, \$7.50@9.00; No. 3, \$5.00@6.50; choice prairie, \$4.20@7.00; No. 1, \$5.50@6.00; No. 2 \$4.50@5.00; packing hay, \$3.00@4.00.

St. Louis Grain. ST. LOUIS, Feb. 17.—Receipts, wheat, 22,555 bu.; last year, 6,500 bu.; corn, 133,000 bu.; last year, 42,000 bu.; oats, 25,000 bu.; last year, 49,100 bu.; shipments, wheat, 16,998 bu.; corn, 129,134 bu.; oats, 10,000 bu. Closing prices: Wheat—Cash, 72c; February, 61½c; May, 64½c@64c; July, 62½c. Corn—Cash, 26½c; February, 26½c; May, 26c; July, 28½c@28c. Oats—Cash, 19c bid; February, 19c; July, 20½c.

Kansas City Produce. KANSAS CITY, Feb. 17.—Butter—Creamery, extra separator, 17c; firsts, 16c; dairy, fancy, 16c; fair 18c; store packed, fresh, 10; 12c; off grade, 8c; country roll, fancy, 12½c; choice, 11c.

Eggs—Strictly fresh candied stock, 10½c per doz. Poultry—Hens, 6½c; springs, 7½c@8c; roosters, 15c; young, 17½c; turkeys, hens, 9¼@10c; gobblers, 9c; ducks, 8½c; geese, fat, 5¼@6c; pigeons, 90c@1.00 per doz.

Robt. C. White

Live Stock Commission Company. TELEPHONE 2426. Kansas City Stock Yards.

Stockers and feeders bought on order. Reasonable advances made to responsible parties. Market reports and special information free.

THE STRAY LIST.

FOR WEEK ENDING FEB'Y 6, 1896. Riley county—James R. Young, clerk.

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

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

FOR WEEK ENDING FEB. 13, 1896. Cherokee county—T. W. Thomason, clerk.

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

FOR WEEK ENDING FEB. 20, 1896. Lyon county—M. Q. Starr, clerk.

STEER—Taken up by M. M. Mason, in Jackson tp., November 1, 1895, one red steer, 2 years old, dehorned, no marks or brands; valued at \$25.

ITALIAN BEES. Full colonies of pure ITALIAN BEES in the latest improved Langstroth hives, shipped to any point and safe arrival guaranteed.

Synopsis of the Annual Statement of the Insurance Company of North America, Of Philadelphia, Pa. JANUARY 1, 1896.

Table with columns for Gross assets, Total liabilities, Total cash income, and Risks written in 1895. Lists financial data for the insurance company.

Founded A. D. 1792. Cash capital, \$3,000,000.00. Losses paid since organization, \$85,845,523.32.

W. M. FORBES, Agent, Topeka, Kansas.

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.

The OLD BLUE-BACK SPELLER

was erstwhile thumbed by how many who read these words! And the old familiar picture!—each heart recalls a different scene, but all remember well how, cribbed, confined and confined while sunshiny afternoons dragged their slow length along, the feeling akin to pity grew into real admiration for the "young saucy-box" who would NOT come down, either for words or grass.—It TAKES stones and bull-dogs to drive boys out of STARK TREES!

STARK-TREES BEARFRUIT

—Not leaves only Tested 70 Years When you plant a Stark tree, you can depend upon it—you have the BEST THERE IS. You can't afford to take chances. No man wants to lay the ax to the root of a tree, or dig it up, just when old enough to bear.

A TREE IS KNOWN by its fruit. Stark trees bear fruit—the finest science has ever produced. For instance—The chiefest among them, not 10,000 but 20 MILLION!

Gold (\$3,000) Plum A child of science, sprung from crossing our hardy fruitful American plums and the beautiful and exquisite plums of Japan.

Live Stock Commission Merchants. Rooms 265 and 266 Live Stock Exchange Building, Kansas City, Mo.

Stockers and feeders bought on order. Liberal advances to the trade. Patrons and prospective customers, send for market reports and special information regarding the trade.

Wm. A. Rogers. Robt. E. Cox. Fred W. Bishop.

Stark Trees Bearfruit. The finest science has ever produced. For instance—The chiefest among them, not 10,000 but 20 MILLION!

STARK BROS' NURSERIES & ORCHARDS

# The Poultry Yard

## Ducklings and Chicks.

By way of comparison, says the *Poultry Keeper*, we fed a few ducklings and chicks, all hatched at one time, weighing the best duckling and the best chick, with the following results:

At one week old the duckling weighed 4 ounces, while the chick only reached 2 ounces.

At two weeks old the duckling reached 9 ounces and the chick got up to 4 ounces.

At three weeks, duckling, 1 pound; chick, 6 1/2 ounces.

At four weeks, duckling, 1 pound and 9 ounces; chick, 10 ounces.

At five weeks, duckling, 2 pounds and 2 ounces; chick, 14 ounces.

At six weeks old, duckling, 2 pounds and 11 ounces; chick, 1 pound and 2 1/2 ounces.

At seven weeks old, duckling, 3 1/2 pounds; chick 1 pound and 7 1/2 ounces.

At eight weeks old, duckling, 4 pounds; chick, 1 pound and 12 ounces.

At nine weeks old, duckling, 4 pounds and 8 ounces; chick, 2 pounds.

It will be noticed that the duckling "ran away" from the chick in growth, although the chick weighed heavily for a chick, which was a Light Brahma, the duckling being a Pekin. At the same time the duckling ate nearly two and a half times as much as the chick. One duckling, specially fed, when seven weeks old gained fifteen ounces in one week.

## Egg-Eating Hens.

EDITOR KANSAS FARMER:—Will you allow me to give J. B. Frost our experience with hens eating their eggs? We have had hens form this habit twice. The first time was in the winter. They laid in the horse manger, and on cold days, when the ground was covered with snow, they usually congregated in the manger, and with their scratching around in a nest containing five or six eggs some were soon broken. Of course chickens will *always* eat a broken egg, shell and all, so they soon learned to break them. In this case all that was necessary was to break up the habit of laying in the mangers and to induce them to lay in nests provided for the purpose, when the habit died out.

The second time we had another set of hens, and it occurred in the late spring. As they were laying quite well, and as the chickens (not the laying hens alone) regarded eggs as a model article of diet, we experienced much trouble in breaking up the habit. We first removed what we thought to be the cause. When eggs were used in the house the shells would be cracked, pulled partly open to allow the egg to slip out, and then thrown out in the yard, and the hens would race to see which could get the largest share. Then some day when Chanticleer espied a pile of egg shells (with the eggs in them) lying in the weeds, he issued a general invitation to his family and friends. Then followed the customary race. The first hen to arrive gave a savage peck and ran off with a piece of shell, and so the habit was formed. My wife took to crushing all the shells into pieces before throwing them out, but the chickens were still as fond of eggs as ever and regarded every egg they found about the stable, hay stacks, in the weeds or elsewhere, as legitimate an article of hen food as an ear of corn. Next we broke up all the outdoor nests and fixed some nests up high in the chicken house and provided them with several nest-eggs each. The hens took to laying in these nests, and so we enjoyed a comparative immunity from all but a few of the laying hens, as the rest of the chickens only went to the chicken house to roost, and so they never saw the eggs. In the end we stopped the habit in those few hens by placing the nests in slightly darkened places.

I think that in both cases the trouble was aggravated by a lack of food, not animal food, but simply a lack of food. I believe that in theory it is caused by a lack of animal food. In the poultry papers and poultry assemblies it is lack of animal food, but in actual practice

it is usually otherwise. It must be remembered that the average horny-handed son of toil does not make daily trips to the butcher shop to provide fresh meat for his fowls, and yet they seldom make up this deficiency of animal food by eating their own eggs. In fact, I think that a careful comparison by a physiologist of a hen's canines with those of other carnivorous animals might suggest to him the fact that she is equal to her task in life, even on a straight vegetable diet, provided there is enough of it. If he cannot learn this much from a study of the hen's teeth, he may from a study of the hen as she is, as she lives and lays.

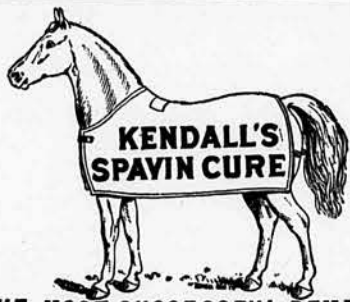
During this winter the diet of the farmer's hen has been grain, grass and such stuff as she could forage. Her animal food has been limited to a taste of entrails at the annual killing time and such eggs as she has feloniously appropriated. Yet eggs are selling here to-day for 9 cents. Deprive one man of water and he dies. Deprive another man of water and he dies, and another and he dies, and so on, and so it is clearly proven to deprive a man of water will produce death. Now deprive one hen of her animal food and she takes to eating her eggs. Deprive another, or even a thousand, of animal food, yet they are not driven to egg-eating. Yet this clearly proves that a lack of animal food produces egg-eating? No, it is only a habit, and anything that will cause a temporary cessation of the practice will break the habit.

A. T. ELLISON.

Piqua, Kas.

A man in Kansas has devised the following plan for protecting new-born pigs in zero weather: Saw a kerosene barrel through the middle and set one half near the farrowing pen—a dry goods box will answer the same purpose. Cover with a piece of old carpet and place a jug filled with hot water in the center. Slip a gunny sack over the jug, and as fast as the pigs come place them in the barrel. Leave them there until they are thoroughly dry. They will keep close to the jug and usually remain very quiet until they are hungry. Then let them out all at once, giving each an equal chance.

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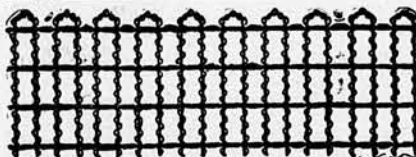
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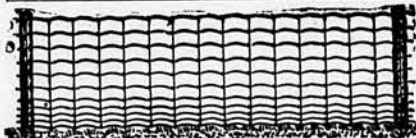
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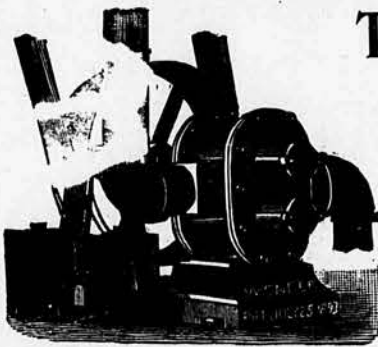


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Slaughtered in Kansas City.....	922,167	2,170,827	567,016		
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Total Sold in Kansas City, 1895.....	1,533,234	2,346,202	748,244	41,588	

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553 PEDIGREED AND HIGH-GRADE HEREFORD CATTLE 553 Ever offered at one time in the United States at public sale.

At Fair Grounds, Burlingame, Osage Co., Kas., twenty-six miles southwest of Topeka, on the main line of the A., T. & S. F. railroad. THURSDAY AND FRIDAY, MARCH 19 AND 20, 1896. The 253 Registered animals consist of six Herd Bulls, sixty-five Young Bulls, 132 Breeding Cows and fifty Heifers. These animals combine the following strains of blood: Anxiety, Lord Wilton, The Grove 3d and Cherry Boy. A large number of the females are by the noted Beau Real 11055 and his sons Stone Mason 29071 and Nimrod 29072. For full and complete details of the breeding of the Pedigreed animals send for a free copy of the sale catalogue.

300—THE GRADE HEREFORDS—300. These offerings will consist of 125 Cows, sixty-five two-year-old Heifers, sixty-five yearling Heifers and forty-five yearling Bulls. All three-quarters blood and up. These will be sold in car lots or bunches to suit purchaser. Send for copy of free catalogue now ready. TERMS:—Cash. Sale to commence at 9 o'clock a. m. each day and continue until all stock is sold. Usual sale day lunch at noon. Bids by mail or telegraph will be fairly treated by either Col. F. M. Woods, Auctioneer, or SHELDON & WHEELER HEREFORD CATTLE CO., BURLINGAME, KAS. Lincoln, Neb.

PUBLIC SALE! OF SEVENTY-FIVE HEAD OF POLAND-CHINA AND BERKSHIRE SWINE At my Farm, five miles southeast of

TOPEKA, KAS., FRIDAY, FEBRUARY 21, 1896.

In making this announcement, I will say to the public that I have too much work, and propose to dispense with it by selling off seventy-five head of thoroughbred hogs—about forty sows in farrow and thirty-five boars ready for service. As good hogs as there are in the world. My best boars and sows are in this offering, some of them 600 pounds and over. Come, everybody, and buy at your own price. Free lunch at 11:30 o'clock. Sale begins at 12:30. Here is a grand chance for a start of the best blood in the world. One more cholera year over with and the past proves that we will have no more under four or five years. I pride myself that I have as good hogs as any man. All purchasers will be required to give approved security. All bids sent to Col. Jas. W. Sparks, Marshall, Mo., will be treated fairly. TERMS:—All sums under \$20 cash; sums of \$20 and over, six months time without interest if paid when due; if not paid when due, then 8 per cent. from date. Five per cent. off for cash on time sales. Parties from a distance will be required to give bank reference to obtain this credit. Send for catalogue.

COL. JAS. W. SPARKS, Auctioneer, Marshall, Mo. V. B. HOWEY, Box 103, Topeka, Kas.

Grand Dispersion Sale! ENTIRE SUNNY SLOPE FARM HERD.

150 PRIZE-WINNING POLAND-CHINAS 150 ON OUR FARM AT Emporia, Kansas, Tuesday, March 17, 1896.

When we will offer our entire herd, consisting of the breeding boars Hadley Jr. 88007 O., 13314 S.; Sir Charles Corwin 33095 O.; Clay D. 25877 A., the State fair sweepstakes boar; J. H. Sanders Jr. 35089 O.; Longfellow 29785 O.; that has the best World's Fair record of any boar west of the Mississippi river; L's Sensation 13316 S.; Harry Faultless, Vol. 10 S., and Victor E. Jr., Vol. 10 S. Among the brood sows belonging to the following families—Corwin, Tecumseh, Black U. S. and Wilkes, are the females belonging to our 1895 show herds, viz.: Yearling herd—Faultless Queen Corwin (29798), Queen Wilkes 2d 82498 O., Actress Corwin (28600), Miss Short Stop (30344). Six and under twelve herd—Lady Longfellow (34099), Ideal Lady U. S. (32702), Tecumseh Mortgage Lifter (32640), Black Daisy 4th —. Under six months herd—Samboline (34101), Sweetheart (34183) and Esmeralda (34181). Our sows were sired by such noted boars as J. H. Sanders 27219 O., Ideal Black U. S. 25505 O., King Tecumseh 2d 14935 A., Michigan 32537 O., Longfellow 29785 O., Royal Short Stop 10887 S., he by Dorsey's Short Stop 6988 S., Corwin King 10329 S., he by Corwin U. S. 1116 S., Black Prince 10118 S., he by Hill's Perfection 3701 S. and Joe Coler 2d 29509 O., he by Joe Coler 21799 O., and others, for which see our free catalogue, as well as for breeding of other brood sows and gilts bred.

TERMS:—All sums under \$20, cash; a credit of eight months will be given on sums of \$20 and over with interest at 8 per cent. from date. Parties from a distance please bring bank reference to obtain this credit. Send for a copy of free catalogue. Usual sale lunch at 12 o'clock noon. Sale to commence promptly at 10 o'clock a. m. Col. F. M. Woods, Auctioneer. For catalogues write H. L. LEIBFRIED, Manager. or C. S. CROSS, Emporia, Kas.

IMPORTANT PUBLIC SALE ON WASHINGTON'S BIRTHDAY.

Gardner, Johnson Co., Kansas, Saturday, February 22, 1896.

THE PINE TREE STOCK FARM CLOSING-OUT SALE. Ten Thoroughbred Short-horn Cattle, Percheron and Coach Horses, Fine Poultry and Farming Implements.

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

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

LAIL'S VICTOR 4298, Nell's King 13517 and the 1,000-pound Commonwealth 15701 head my thirty Poland-China brood sows. The 1,000-pound Miss Lord Corwin 28498 and others equally good. Grand young males and sow pigs. Prize-winning B. P. Rock, Lt. Brahma and Cornish Indian Game birds, Chester White pigs and butter-bred Holstein Bull calves. Everything first-class. Prices to suit the times. GEO. W. NULL, Odessa, Mo.