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ABOUT TORNADOES.

In the Kansas Crop and Weather Bulletin for the month ending June 30, 1886, issued by Hon. Wm. Sims, Secretary of the State Board of Agriculture, the following statement of storm theories is made:

A few words on the subject of tornadoes

cision by the rising and sinking of the barometer, and ships at sea can avoid their greatest fury by observing well-known rules. The tornado is a very small cyclone, having a breadth of feet where the cyclone has miles. The barometer gives little indication of its approach, and its move-

the sudden heating and expansion of air, causing it to raise the upper strata and so disturbing the equilibrium, which the inflowing currents tend to restore. Were this the only consideration, the movements would be of short duration and of no great violence. The energy set free by precipitation comes

ance was like what has often been described as seen in waterspouts.

When the precipitation is more abundant the heat set free gives the upward air movements a greater velocity, and the rain is sometimes carried so high as to be frozen, and falls to the earth as hail. It is very



PERFECTION NO. 215.

STOCK RAM IN USE AT MERINO SHEEP FARM. PROPERTY OF R. T. McCULLEY & BRO., LEE'S SUMMIT, MO.

may not be out of place at this time. The month generally supposed most prolific of this kind of storms has come and passed this year without any serious wind being reported from any part of the State. Kansas has indeed been exempt for five or six years from tornadoes of the kind that swept through Irving and other parts of the State in 1879. No year passes without some part of the great area of Kansas being visited with violent storms, and more or less buildings are blown down; but tornadoes of the Irving type are happily of rare occurrence, and Kansas is quite as free as her neighbors from these visitors. It is the fashion to call these tornadoes "cyclones," though the latter term has long been applied by meteorologists to storms of quite a different character. Cyclones, properly so called, occur on the Atlantic and Indian oceans, or on the shores of these great seas. They have well-defined and regular movements, usually cover a great area; can be foretold with some pre-

ments are very erratic, as well as violent.

The two are similar in the important fact that the wind has two motions—an onward movement like ordinary wind, and a motion of rotation about a vertical axis. The gyratory movement in the northern hemisphere is from left to right, or opposite to the rotation of the hands of a watch, while in the southern hemisphere this motion is reversed. This is equally true of cyclones, tornadoes, and even the little dust-whirls, which shows that all these phenomena are governed by the same laws. It has been analytically established by Prof. William Ferrel, that fluids on the earth's surface moving toward a center must necessarily take that form of gyratory motion which all observation shows them to take in cyclones and tornadoes, and this gyration also accounts for the barometric fluctuation in the cyclone.

We may therefore conclude that the tornado originates in the movement of air toward a center, occasioned in most cases by

in here to intensify the atmospheric movements, until the tornado is equipped with all its power for destruction. In accordance with this, we find that all destructive tornadoes are accompanied by great rainfall, and when the rain ceases the storm soon dies out. The funnel-shaped cloud which is the sure precursor of the tornado, is the visible evidence of precipitation, although it is not always that such a cloud is evidence of rainfall. About six years ago a cloud of this kind appeared three or four miles southeast of Topeka, having at its base on the earth a cloud of dust and leaves, and this was connected to the funnel-shaped summit by a long column of something which looked at a distance like a column of water. It swayed to and fro with a sinuous motion, till at last the top separated from the base, and in a few minutes both had disappeared. No rain fell from this cloud, though the wind was violent enough to prostrate several stacks of hay which came in its path, and its appear-

probable that all great hail storms partake of the tornado characteristics. The so-called waterspout is a tornado when it sweeps over bodies of water. The downpour of water from such clouds comes from the air for the most part, and is simply rain, and there is no good evidence that a tornado lifts great masses of water into the air from a lake or sea. Cases are not rare where schools of small fish have been caught and transported quite a distance, but we believe that when a tornado strikes the water it agitates and scatters it without lifting much of it high into the air. In this way small pools and ponds have been swept dry, the water and mud being scattered in every direction. Reports that water has been lifted from the bottom of wells by tornadoes may safely be regarded as delusions. We find in the wind sufficient energy to account for all the destructive and transporting effects seen in tornadoes. There is a velocity which has been

(Concluded on page 4.)

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.

August 5—W. H. H. Cundiff, Short-horns, Pleasant Hill, Mo.

August 24—T. A. Hubbard, Short-horns, Wellington, Kas.

Tuesday and Wednesday of next Kansas City Fat Stock Show, Inter State Breeders' Association, Short-horns.

Cooked and Raw Corn as Food for Fattening Pigs.

By Prof. E. M. Shelton, State Agricultural College.

The value of cooked corn as compared with corn in the raw state was the subject of the experiment hereinafter detailed. Ten pigs, with one exception yearlings, were selected for the purposes of this experiment. As a whole, the lot thus employed was very uniform, the only exception being the occupants of pens number 8 and 10. No. 8 was a six-months-old pig which refused to take kindly to the exclusive corn diet, and consequently was early counted out of the trial. No. 10, the other exception to the rule of uniformity, differed from his companions in that he was a purely-bred Poland-China, and one of superior feeding character, the others being purely-bred and closely-related Berkshires. The behavior of the young pig No. 8 was interesting, because it seems to illustrate a truth of quite general application. This pig, almost from the first, showed a quite variable appetite; he was often troubled with constipation, and had the dry coat and unthrifty appearance which careful managers everywhere strive to avoid in their stock. This case is one of many that have come under my observation in the course of twelve years' experience upon the College farm, all serving to emphasize what I believe to be the fact, namely, that valuable, unexcelled I may say, as corn is, as an easily accessible fattening food for mature animals, it is for young growing pigs literally a starvation diet.

These pigs were fed twice daily with general regularity at 8 a. m. and 4 p. m.; all were weighed at the end of each ten days, and a careful record made of all weighings. The pigs occupying pens 1 to 5 inclusive were fed cooked shelled corn; those in pens 6 to 10 received raw shelled corn,—as much in both series being fed as was consumed without waste. The figures for cooked corn given in the tables which follow in every case refer to the weight of the corn before cooking. The corn was weighed before cooking and after, and the proportion of water absorbed in the cooking process subtracted in the case of every feed of every pig. The comparisons therefore wherever made are of cooked corn, weighed before it was cooked, with raw corn simply. In cooking, no set rule was followed except that the corn was so thoroughly acted upon by the heat that each grain might easily be crushed between the thumb and finger. The cooking was done in an ordinary barrel, which was connected with a steam boiler by a half-inch steam pipe which supplied the barrel with steam at a boiler pressure varying from thirty to sixty pounds to the square inch. Water directly from the well was given daily to each pig, as was required.

Almost from the first a considerable practical difficulty was experienced in feeding the cooked corn, but one which of course would be felt in feeding any form of soft feed; during very cold weather, of which much was experienced, the soft, mushy, cooked corn, unless consumed as soon as placed in the trough, would freeze solidly, entailing considerable waste at times. This difficulty was aggravated by the well-

known fact that full-fed pigs eat slowly in times of severe cold. On this account it was found occasionally necessary to substitute a small feed of raw corn for the regular ration of cooked corn; but it is believed that this was not done often enough to affect the "totals and averages" obtained in this experiment.

For convenience in making a comparison of results, the following summary, giving the principal facts of the foregoing tables with others in concise form, has been arranged:

	Total feed.....	Total gain.....	Feed consumed for each pound of increase.....	Average daily gain.....	Average daily gain of each pig.....	Average gain of each pig.....
FEED: COOKED CORN. Pigs No. 1, 2, 3, 4 and 5.	3894	520	7.5	8.6	1.1	47.5
FEED: RAW CORN. Pigs No. 6, 7, 8, 9 and 10.	3811	605	6.3	8.4	1.68	59.8

Some of the difficulties encountered in the prosecution of this experiment have already been referred to. The cold weather which prevailed during the last four weeks of the trial furnished many annoying interruptions. During periods of severe cold near the close of the experiment, the pigs remained in an almost comatose condition, coming to their feed with evident reluctance, consuming but little and making a proportionately light gain. While the cold weather affected all the pigs alike, so far as relates to externals, the character of the cooked feed—its liability to freeze as soon as placed in the trough—made it extremely difficult to keep accurately the record of feed consumed. Nevertheless it is believed that the errors thus originating were not sufficient to affect the results obtained. I expect in the near future to repeat, under more favorable circumstances, the experiment above detailed.

The figures given above need but little comment. They show as conclusive as figures can show anything that the cooked corn was less useful than the raw grain, the difference in favor of the uncooked corn taking the item of pounds of feed required to make one pound of increase, amounting to exactly one-fifth. That this result is not an accident seems abundantly proved by the other items of the summary; the daily consumption of each pig using cooked feed was almost exactly the same as the amount of raw corn used in the pens where raw corn was the exclusive food, but the average daily gain—and of course the total gain—and the gain per hundred weight of pig were in the series using the cooked feed, greatly less than with the pigs using the raw corn. Such an entire unanimity of results can only be explained upon the theory that the cooking was an injurious process so far as its use as food for fattening animals is concerned. With younger animals, whose gain would be made chiefly in growth, the cooked feed might give different results from the foregoing; but a considerable general experience does not encourage this belief.

Nothing has been said here of the cost of cooking,—always a very considerable item, both in respect to labor and cost of fuel,—as circumstances, such as mechanical conveniences and cost of labor and fuel, vary greatly the cost of the process in different localities.

A yearling brother to Foxhall, the horse which brought fame to the American turf by his splendid campaign against the world in England and France, sold at auction recently for \$6,000, the largest price ever paid for a yearling colt in this or any other country.

How to Get a Valuable Herd.

Suggestions are always in order. An Iowa farmer says the best place to start toward a good herd is the particular place where your means lie. Begin where your means will justify, he says. If you cannot afford to buy the results of other men who have bred up from mediocrity, then begin with mediocrity. If you can afford to buy good grades, then do so. If you can afford to buy the pedigreed animals, and know good ones from bad ones, be sure that the best will pay best. But be sure you know what is the difference between native and a grade, between a poor grade and a good grade, between a good grade and a thoroughbred. Few know these things well. Most think they know them thoroughly. It takes longer to learn how to raise a calf well than to learn how to draw an indictment that will hold. We know this because we have seen good papers drawn by a young lawyer, while no young farmer has compassed the inns and outs, the handling, feeding, breeding, and elevation beyond its ancestors of a young animal. Much that is written by sidewalk farmers is misleading. They tell you often that a grade to breed from is better than some thoroughbreds. This may be so, but we never personally knew of such a case. Let us illustrate. We have three hundred grade steers and one thoroughbred steer. This thoroughbred was the meanest, runtiest, most ill-favored beast in a large herd of thoroughbred Short-horns. His owner made a steer of him and we bought him. Inside of six months on our good grass he filled up, leveled out, and now looks away beyond half-breeds, three-quarter breeds, seven-eighth breeds, and fifteen-sixteenth breeds.

Blood tells, and our native blood tells as well as any other. The uneven back, the thin bones, the thick hide, the long legs, the big horns, the unquiet disposition, are indeed far longer than their opposite, and the grade will breed back very certainly. In grading up a herd it is like abandoning all ground gained to breed from a grade. No farmer can say that he cannot afford to buy pure male blood. It is easy of demonstration that no owner of ten females can afford to use anything else than pure blood on the male side. Prices of thoroughbred males are within the reach of every owner of ten females, and owners of a smaller herd cannot afford to patronize other than pure males. The only excuse that is tenable is that pure-bred males are not for sale. This would be the case if all our female owners tried to get pure males. Iowa has perhaps as many thoroughbreds of most kinds of fine horses, cattle, hogs and sheep as most States, but if there were a general demand the supply would not equal it. Good feeding must accompany good blood in breeding up a herd. Iowa grows plenty of everything that is good for animals, at the cheapest rates. Discretion must be used in the choice of foods. Many a fine animal has been overfed with corn and ruined. It is the besetting sin of the herdsman. Grass will develop fully all grazing animals. In winter the temptation comes. Development is all that is needed, steady growth. The use of young males is reprehensible. It ruins the male and weakens the stock. Breeding too young is bad, as it prevents sufficient size being reached by dam or offspring. Too long suckling is objectionable, as it develops too much bone, in the young and greatly reduces the parent.

Breed steadily. Do not be tempted to sell out a particular line of stock in depressed times. Study your families. Seek mates to obliterate faults. Pay for the best obtainable. Few steers that

have less than three crosses ever go to the salt water as food. As regards pedigree, if it is reliable and speaks of excellent features, it is very desirable. It is simply a history of what has gone before,—the only guide of what to do for the future. There are some breeders who preserve their pedigrees faithfully, who make things worse for want of judgment in breeding and for want of spirit in buying males to improve with. Such pedigrees are not valuable, only as guides to enable us to avoid danger. But still, if you make a steer of the poorest specimen of a pedigreed animal, he will likely beat all your high grades as a feeder. Dishonest men must be avoided. They can lie about a pedigree and mislead any breeder. Color does not count. One is about as good as another. Perhaps as light colors are more delicate, the red among cattle will eventually prevail. Public sentiment will have it so. Reason will not get a hearing. Red bulls are preferred, and breeders prepare to meet the demand. Roans, we think, are as good, but the people will have reds and the result will be red cattle. We do not think that any man by grading up during his lifetime can produce as good cattle as the average thoroughbred of to-day. We think that grading up will soon produce valuable cattle, but not as good as we now have.

Hog Houses.

I have made hog houses a study for twenty-five years, and have built six for my own use in that time, and in the last three I have got the greatest convenience for the least money of any I have ever seen. After trying different sizes and shapes I finally settled on eight feet as the best width. My reasons for adopting this width are that it furnishes ample room for all the hogs that can be accommodated at the trough, and there is no economy in enclosing space not needed. If a feed room is desired I build two of these houses fronting each other, as many feet apart as the width desired for the feed room and let the rafters run up till they meet. One of my houses 8x12 feet is high enough so that I can store 100 bushels of corn overhead, and two other 8x14 are near my corn crib, and so we do not need room for corn, and have made them just high enough so that a man can stand straight to clean them out. The front is 7½ feet from floor to top of plate and the rear 4½, and in weatherboarding a 14 foot board cuts one length for the front and one for the rear, and extends down below the floor joists, which are ten inches wide. It takes just 308 feet of weatherboarding to cover a house 8x14 feet, and one of this size will winter comfortably twelve stock hogs of 100 to 125 pounds weight each, or eight large hogs can be fattened in it. I did fatten ten 300-pound hogs in one of this size, but they were crowded at the trough for the last month. I have tried two-inch plank for hog house floors and do not like it. It costs much more than double inch and must be lined at last, or the cracks will open so as to let in cold, and allow shell corn to waste. I have used floors made of inch laid double, for the last eighteen years, and I find that a floor laid in this way will last from ten to twelve years, and when it is renewed there will generally be enough of the old floor to furnish a lining for the new one. The lining or first floor need not be laid close, and common sheathing boards, without straight edges, are as good as any. I do not have a ground pen in connection with a hog house if by that is meant a pen with a ground floor, for it will in wet weather become a "slough of despond," and a stench in the nostrils. I make, however, an outside pen the

same size as the hog house and floor it with strong boards, and by keeping a supply of straw, cornstalks, or other coarse litter in this pen, the hogs make a good lot of manure, and if pains are taken to supply enough litter the pen will never stink (a good Saxon word). I use this as the manure pit and do not find it necessary to have a separate sleeping apartment, but divide the floor by setting a 2x6 studding on edge across the floor, dividing it into two parts, and by a little training the hogs will use one part for sleeping and the other for eating.

There is no need of a carpenter in building one of these houses. First prepare a foundation, which may be boulders, posts, or brick or stone pillars. Then place short sills 4x8 inch, and eight feet long—on edge—at the ends. On these place five joist 2x10 and the length of the house; see that the foundation is square and level; bridge the joist so as to have the weight come alike on all, and lay the floor. Do not let the floor project any for when you weather-board you must nail to both sills and joist, as this will strengthen the building. Now cut posts from 4x4 scantling, three for the front and three for the rear; a twelve-foot stick will cut a front and rear post. Saw them square and set them on top of the floor, fasten the bottom by toe-nailing and spike 2x2 studding to the top of them for plates. Put up your end rafters so as to nail the top of the weather-boarding to them, put in a rim of nail ties of 2x4 and you are ready to weather-board. Two men will build one of these houses complete in two days. If you prefer you can have a small outside pen at each end, and arrange a movable partition to divide the house into two equal parts; this will be very convenient for sows at farrowing time. I would make two doors to the pen whether the outside pen is at the rear or two are made. Make the doors two feet wide and three feet high, and hang with hinges at the top, so as to turn up out of the reach of the hogs when open, and arrange a hook and staple to hold them up. If you build two of these pens facing each other and eight feet apart, it will give you a large feed room at a very small expense.—*F. W. B., in the Indiana Farmer.*

In the Dairy.

Put Grain Into Milk and Butter.

This paper has often called attention to the philosophy and the importance of condensation in the products of the farm, by way of economy and thrift. If grain is put into milk and such of the milk as is not sold is put into butter and cheese, the change is profitable to the farmer. It is easier to get butter and cheese to market than it is to get corn and oats and grass there. An Eastern writer some time ago suggested that "every trainload of grain that goes out over the lines of roads leading eastward, lessens the capacity of the grain region of the West." And that is true. The ever-flowing tide of Western produce eastward is a perpetual drain of our natural resources. It is a pretty plain fact, the *National Live Stock Journal* says, that the engines upon the great thoroughfares leading from the West to the Atlantic seaboard, are daily tugging away ponderous loads, which embody the productive energy of Western farms, to be borne to Europe or the Atlantic cities, where, so far as the West is concerned, it is lost forever. The strength of Western grain farms is moving eastward in no small way. The United States census of 1880 shows a production of grain in the whole country

of 2,332,697,681 bushels, which is more than double the production of 1870. Supposing the rate of increase to have continued through the last five years at the same rate it did from 1870 to 1880, the total product must now be over 3,500,000,000 bushels annually, two-thirds of which are grown in the West and Northwest. One-half or more of the Western grain goes eastward, or say 1,000,000,000 of bushels, weighing 60,000,000,000 of pounds. Supposing one-half of this to be made up of wheat and oats, and the other half of corn, rye, and barley, about 4 per cent. of the whole, or 1 pound in 25, will consist of plant food, in the form of nitrogen and ash; or, in other words, for every train of twenty-five cars loaded with grain, of which there will be required 120,000 to move 1,000,000,000 bushels, there will be in every train one carload of the best and most available plant food in the soil carried off in the form of nitrogen and ash, annually depleting Western farms to the extent of 120,000 carloads of 20,000 pounds each of their most precious material, which in the end will go to enrich the Atlantic Ocean and the British Isles. How long the West can stand this drain upon its fertility and prosper, it may not be possible for any one to say with precision, but every one familiar with the tendency of things in the occident knows the sections are growing poorer wherever this exhausting process is going on. The West is a great country, and this depletion, which is so enormous in the aggregate, becomes considerably diluted when spread over the vast area from which it is derived; but, expansive as the West is, it is not large enough to endure this constant drain upon its native fertility without telling upon its agricultural resources to an extent plainly perceptible.

No country can long carry on a large exportation of agricultural products without ultimately impoverishing its soil. If there is a necessity for exporting something, and the soil is rich and able to produce large crops of grain, it is better to keep it so by converting the grain into other products which will make lighter draughts upon its fertility, exporting the products of grain rather than the grain itself. The conversion of grain into milk, wool, and meat is the panacea for soil-exhaustion. Converting grain into meat permits of leaving nine-tenths of its fertilizing properties on the farm, so that instead of losing 1 pound of plant food for every 25 pounds of grain, the necessary loss will be but 1 pound for 250 pounds of grain. Wool makes a more concentrated product than meat, and consequently leaves more of the fertilizing matter contained in the crops consumed on the farm. Dairy products stand in the same relation. Cheese and wool carry off considerable nitrogen in proportion to their weight, but their ash is the merest trifle. The ash of cheese, it is true, figures high, but it is nearly all salt, used for seasoning and preservation. The ash in cheese due to the milk it is derived from, is next to nothing, and in the case of butter neither nitrogen nor ash enters into its composition except in scanty traces. When made on the farm, or at factories conducted on the cream-gathering plan, the production of butter carries off absolutely nothing that would be of any appreciable service to the fertility of the farm. The butter from a forty-cow dairy would not abstract from it a pound of plant good in a year. All there is in the food which the cows would consume that would be of any use to the productiveness of the farm can remain on it, leaving it to grow rich by the steady solution of its mineral matters and by the accumulation of humus.

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MISCELLANEOUS.

S. S. URM, 137 Kansas avenue, Topeka, Kas., Live Stock Auctioneer. Sales made in any part of the State. Correspondence solicited.

BARNES & GAGE, Land and Live Stock Brokers Junction City, Kas., have large lists of thoroughbred Cattle, Horses and Hogs. Special bargains in fine individuals. Correspondence solicited.

S. A. SAWYER, Manhattan, Kas., Live Stock Auctioneer. Sales made in all the States and Canada. Good reference. Have full sets of Herd Books. Complete catalogues.

TIMBER LINE HERD —OF— HOLSTEIN CATTLE —AND— POLAND-CHINA HOGS.

We are before the public for the year 1886 with some of the finest HOLSTEIN BULLS there is in the State, and COWS and HEIFERS of like merit, At Prices to Suit the Times.

In Hogs, our herd has only to be seen to be admired. We have a fine lot of March and April Pigs. Ask for what you want.

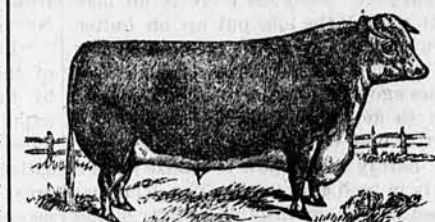
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HOLSTEIN PARK.



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HOLSTEIN BREEDER.
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WM. A. & A. F. TRAVIS,
BREEDERS OF
Holstein-Friesian Cattle.
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SUNNYSIDE STOCK FARM



F. R. FOSTER & SONS, TOPEKA, KAS.,
Breeder and dealers in Thoroughbred and Grade HEREFORD CATTLE. Thoroughbred Bulls ready for service always on hand. Grade Hereford Heifers, singly or in car lots, for sale. Will take Cows for breeding on reasonable terms. All Bulls registered and guaranteed breeders. Come and see us. We can suit you.

(Continued from page 1.)

estimated sometimes as high as 200 miles per hour. The movement is upward as well as onward, and few structures can resist such a force. It is sufficient to carry men and animals into the air, and everything thus lifted and set in motion becomes a missile to crush objects in its path. The flying sand, pebbles and debris is like a shower of grape shot, and will soon pelt the bark from trees, or drive into the skin or flesh of animals. The popular delusion that electricity plays an important part in these tornadoes lacks scientific evidence, and for the most part thunder and lightning are not prominent in them. The electric phenomena are accompaniments of violent atmospheric movements, and are effects rather than causes.

The question of practical interest is how to foretell the approach of tornadoes and avoid their consequences.

The prediction of a tornado cannot be made with certainty until we see it coming. All observation teaches us to expect a long period of unusually hot and dry weather to be terminated by violent storms. These may assume the tornado character. When we see before such a storm a tendency in the air to form dust-whirls, it is well to be on the lookout, and if the funnel-shaped cloud appears, it is wise to get out of its track if we can. Most such storms in Kansas move from southwest to northeast, and we may judge with considerable accuracy where the path of destruction lies. Cellars in our houses may be so constructed as to be safe retreats, even should the building be blown down, and in most cases an ordinary cellar is more secure in storms than other parts of the house.

The danger to be apprehended from tornadoes is greatly over-estimated. The comparatively small area covered by the largest of them, and the rarity of their occurrence, makes the risk very small indeed. Another favorable circumstance is the fact that most of them come in the day-time, when their approach may be seen, and a place of safety sought. As a scientific question, there is much of great interest connected with the study of tornadoes, and much about them is not well understood. We need not expect, however, as a result of any scientific inquiry, that the dates and localities of tornadoes will ever be foretold, and such predictions must be left, as they always have been, to the almanac-makers, and others, who find in the changing moon and positions of the planets a sufficient basis for their prophecies.

News From West Line of Ellsworth County.

Kansas Farmer:

Our part of the county has suffered from a severe drouth. Early-planted corn will not make half a crop, and five days more without rain will cause late corn to be worthless. Vines are about dried up. Last week the thermometer ranged to 116 deg. in the shade. On the evening of the 15th at 6 o'clock it was 105 deg. in the shade. Every living thing, animal, fowl, vegetable, suffered. The wheat yielded a fair crop; the berry is fine, but there is no price for a farmer to live on. The elevator price ranges from 35 to 50 cents per bushel for No. 2, which is too small a price for the farmer. Everything is down but hogs, and it seems that any person that has a hog is selling him. Buyers have paid as high as 4 cents gross. The pasture seems to be holding out well. The heavy spring rains had the ground well saturated, and grass kept growing in spite of the drouth. Cattle are fat on the range.

Tell the farmers of Kansas they want to push the oleomargarine bill, and give the Kansas dairyman a chance to live. The very best of dairy butter only commands from 6 to 8 cents per pound, and merchants do not want it at that. They say there is no market, but with all the jobs put up on butter, wheat and stock, the central Kansas farmer is getting rich. The settler that came here ten years ago and homesteaded, with barely enough to get here with and build him a dug-out, is now worth ten thousand dollars; but he hardly knows how to realize it, as it is mostly in land and stock. The land has increased in value so fast that it really makes him hard up. You will find his old homestead enclosed with a neat barbed wire fence, good house and barn and outbuildings, and mostly a wind-mill, with plenty of water flowing from a never-failing well. Central Kansas is blessed with abundance of

good water. He also has bought the adjoining railroad land which three years ago he paid \$5 per acre for on time; he now asks \$20 for it, and don't care about selling at that. Our town is growing; vacant business lots sold last week for \$1,000, 25x125 feet. The purchase is for a new bank site. It is commencing to look like rain. I will write you more after the rain.

J. T. McKITTRICK.

Wilson, Kas., July 19, 1886.

Letter from a Young Man.

Kansas Farmer:

I have been a reader of the FARMER for more than three years, and have never seen any young man of my age have an article or letter in this paper. Probably there have been writers, such as I speak of, and I overlooked them.

I wonder what the majority of the young men are doing for a living. That is, are they at home on their fathers' farms, or are they working by the month for strangers?

Also, how many read the papers every week, and are interested in them? Why is it they do not write about their experience in life, such as how to manage to get along with men they work for, to get a good name and higher wages than the general average of farm hands. I am 20 years old; I have been away from home three years next November, except about ten months, the fall following the one I left home. Also once before that I took a fancy for doing for myself. It was in the latter part of February, 1882; I would be sixteen the following May. I left home, friends and all, and started east. The next day I sat as one in a dream. I could scarcely realize my position as I looked at the strange faces in the car, but I went on to that place they call Chicago, and when I got there, wondered how it was I came there. But at last I knew what I was to do, and the same day I arrived I got work. But I did not stay long there or any other place. I had left home to make my fortune. I soon found that it was not like home. But, nevertheless, I did not get homesick. I often thought of home, of the bright side, and of the dark side, and of the boys that I used to associate with, and of my brothers and sisters, and then I would think I might just as well be away from home, and probably some day I would be richer than I was, then I would feel better when I went home.

But here I am. Four years have passed away, and it seems like a dream to me, when I think of the past. I was born in Pennsylvania, and came to this State with my parents in 1880. We came to Dickinson county. Since then I have been through parts of Missouri, Illinois, Iowa and Nebraska, and for all I can say there is not much difference. Everywhere we go we see the industrious grow rich and the inattentive are as poor as ever. For my part, I try to make the place I work at appear like home, and have always succeeded in getting a good name wherever I went. Yet we should not be flattered, as many are, but go on in perfect ignorance (seemingly) of all the words of praise that are cast about us. As we often see the remark, "Labor hath its reward." Suffice me to say I think this can be applied to the man that is working for \$18 to \$20 per month, as well as to the employer. Also, through all my travels I have never been discharged—always I had something else to get at that I was sure was better than the present, but have found out the best way is to stay at one place and save what we earn.

MAC.

July 12, 1886.

Celebration of the Fourth of July.

Kansas Farmer:

Here is an extract from a private letter from an old and very prominent lawyer in Nevada, Cal.:

"I fully concur with you in your opinion of the degenerate celebrations indulged in by the people on our National holiday. I expressed myself here on the same day your letter bears date (July 4th), even more dissatisfied with the manner of observing the great National holiday as indulged in by the people here, most of whom are of foreign birth. They seem to be solely bent on furthering their individual private interests by exhibiting their trade advertisements or in exhibiting what I consider burlesques of our birthday of liberty and independence. The masked procession called 'Horribles,'

now so common on the Fourth throughout the United States, is nothing less than a burlesque of our Independence Day, and should be discouraged by all good citizens."

"It is true, and a pity 'tis true,"

that this mercenary spirit, like a rank weed, is choking out all the higher sentiments of liberty and patriotism among the American people. But that spirit which inaugurated the "Boston tea party" will yet awake from its sleep and indifference and will make tea of the Chinaman this time instead of his product. The slumbering fires of liberty and American independence are kindling at every blast. The poor and oppressed are shaking their chains, while the monopolist is striving to rivet their chains closer. But the spirit of liberty is awakening. Surely their birthright was being stolen while they slept. Americans with no homes, freemen with no freedom; doomed to toil in poverty by the hand of wealth; doomed to ignorance with the grandest system of public schools the world over. Would that we could hear at our next celebration the voice of the whole multitude sing—

"Our country, 'tis of thee,
Sweet land of liberty,
Of thee we sing.
Long may our land be bright
With freedom's holy light,
Protect us by thy might
Great God, our King."

M. J. HUNTER.

Gossip About Stock.

The cheering news of copious showers in western and central Kansas this week will refresh the pastures and help out the corn a great deal. Stockmen generally will be benefited with the farmers.

It is to be remembered that on August 5, at Pleasant Hill, Mo., that Dr. W. H. H. Cundiff, the well-known breeder and exhibitor, will make his first annual sale of Short-horns. The cattle will be sold on their merits as beef producers and their milk and show qualities. No better time to buy first-class and pure-bred cattle than the present. Big money may be realized by purchasing now. The best chances for years.

The KANSAS FARMER wishes especially to impress upon every general farmer the importance of raising better cattle, horses, hogs and sheep. Reduce the number of common stock and improve the quality, and take better care of the stock on hand, and much more money will be realized from the stock of this class for the feed consumed and the time and care expended. Use nothing but thoroughbred males under any circumstances. Well-bred individual thoroughbred stock of all kinds can be bought cheaper and on better terms than ever before. Take good advice and buy some thoroughbred stock this year. Better opportunities than the present time may never come again. Let no difficulties prevent you from taking advantage of this golden opportunity. Have the courage to replace the "runt," "plug" and the "scrub" with first-class stock.

The first page illustration of Perfection 215, is a stock ram in use in the registered flock of R. T. McCulley & Bro., Lee's Summit, Mo. Perfection's first fleece was 18 lbs.; second, 31 lbs. He was awarded the following prizes in 1885: At Bismarck, Kas., first for best ram 2 years old and over, sweepstakes for best ram any age, first for best ram and five of his get; at Kansas City, Mo., first for best ram 2 years and over, sweepstakes for best ram any age, first for best ram and five of his get; at St. Louis, Mo., first for best ram 2 years and over, first for best ram and five of his get owned and bred by exhibitor, first for best ram and three of his get owned by exhibitor. He never went in the show ring without getting a blue ribbon. Perfection will be shown with some of his lambs that will be hard to beat.

The Short-horn cattle sale of Dr. A. M. Eldson, advertised to take place at River Home Farm, July 15, 1886, has been postponed to a future date. This step was deemed prudent on account of present condition of crops. About 150 people were present, but the hot winds and lack of rain for the past ten days having cut the corn prospects so short, none wished to invest beyond the number of stock they already possessed, hence no sale. The cattle to have been sold at this offering were indeed choice and spoke well for the proprietor of same; but the finest stock on earth cannot sell when circumstances as existed here intervened. Dr. Eldson deserves hearty praise for the manner in which he had prepared

for the anticipated throng, as nothing was left undone that would add comfort to all attendants. A shady grove, choice ice-cold water, a bountiful repast of good things, also music by the I. O. F. band of Osage City, all manifested clearly the generous spirit of our friend Eldson. Major N. H. Endsley, the auctioneer, acquitted himself nobly under the condition of things as manifested.

Book Notices.

We are in receipt of a special issue of *Green's Fruit Grower* for July, devoted to the strawberry, on which Mr. Green is authority.

Prof. Richard T. Ely, the economist of the foremost educational institution in America, Johns Hopkins University, contributes the second of his timely "Social Studies" to the August *Harper's*. Under the heading of "The Economic Evils in American Railway Methods" he lays bare some glaring abuses which are generally overlooked or underestimated.

The *July Pansy* (forty-eight quarto pages, illustrated) is in every particular thoroughly good. Its leading articles are contributed by "Pansy" (Mrs. G. R. Alden), Margaret Sidney, Faye Huntington, and the Rev. C. R. Livingston. It contains also an interesting letter from India, descriptive of "How Some Missionaries Travel," excellent short stories, poems, etc., etc. Ten cents a number, \$1 per year. Boston: D. Lothrop & Co., publishers.

General Basil Duke, in an article to appear in the *Southern Bivouac* for August, relates the incidents of the retreat after the fall of Richmond. This war story has never yet been fully told, though it is one of absorbing interest. The paper describes the last council of war, the protection of the treasure train, and the gradual disintegration of the remnants of the Southern armies. Many points of historic interest heretofore neglected are made clear in this narrative, and altogether it is a most important contribution to the history of the war.

The *Popular Science Monthly* for August will open with a richly illustrated article of great economic value entitled "Woods and Their Destructive Fungi." The author, Mr. P. H. Dudley, a civil engineer of rising reputation, has for several years been studying the structure of these woods most commonly employed in the arts, with reference to the agencies concerned in their deterioration. The results of his investigation put quite a different aspect from the generally accepted one on the process of decay, and promise to be of vast industrial importance in their practical application.

BIRDS OF KANSAS.—This is a revision of Col. N. G. Goss's catalogue of the "Birds of Kansas," published in 1883. Since that time the American Ornithologists' Union have prepared and published a revision of the nomenclature and classification of North American birds, and that makes this revision by Col. Goss necessary. The list "embraces 355 species and races; of these 175 are known to breed in the State." Added to the list of birds are several interesting articles on the protection of birds, and one on the English sparrow. The book is published by the Kansas Publishing House, Topeka. The author has our thanks for a copy.

HORTICULTURAL REPORT.—The report of the Missouri State Horticultural Society for 1885 is out. We are indebted to Secretary L. A. Goodman, Westport, Mo., for a copy. The report proper contains 467 pages, and the appendix, bound with it, adds 106 pages. The appendix is made up of a paper prepared by Prof. S. M. Tracy, of the Missouri State University. We agree with the Secretary that this report contains a great deal of matter useful to horticulturists. The best place to go for information is where the people who possess it live. Practical horticulturists speak in this book, and they know more than all the rest on the subject in hand.

While planting a tree do not try to rattle the dirt among the roots by shaking the tree up and down, for this draws the fine, hair-like roots out of place, but does not push them back; it folds them up and gets them all out of shape.

A correspondent of the *Prairie Farmer* feeds broken bones and millet seed to his hens, and reports excellent results in the way of eggs.

SOMETHING ABOUT TURNIPS.

Kansas farmers do not raise enough turnips. Every farm ought to have its "turnip patch," just as it has a garden. Turnips are very good food for both man and beast. When potatoes are short, turnips come handy for table use; indeed, they are now coming into very general use in the cities in connection with potatoes. They are still better for stock. They supply the place of green food as far as it is possible for anything to do it. During fall and winter and early spring, when dry food is fed mostly, animals are liable to constipation and resulting diseases, that would be prevented by a free use of turnips.

Farmers who have not been in the habit of raising turnips will have to learn by experimenting. As essential preliminaries, the ground must be clean, mellow and in good condition for germinating the seed. Wheat or oat stubble ground will do if burned off and stirred, or well plowed immediately after removal of crop, if it gets a good, soaking rain to settle it before the turnip seed is sown. The ground must be in good condition, mellow and clean and rich. The best ground, not specially prepared, is an early potato lot that was well cultivated and the potatoes removed. It needs nothing but to be cleaned of the vines and leveled with harrow. Mr. Waldo F. Brown, a successful farmer of Ohio, says he has raised turnips as a field crop the last twenty-five years and failed only partially two of the twenty-five years. His experience will doubtless be worth something to farmers in Kansas. He says:

I have grown from 100 bushels up to as high as 1,500 each year. Although some years I have not been able to sell, and so have fed them to my stock, in other seasons they have paid me a larger net profit than any crop grown on the farm; and taking the years one with another, I have found an acre or two of turnips to pay better than most farm crops. I remember one year that I sold a carload of 400 bushels at 33½ cents a bushel on the track at my station; and as I was loading the car, was frequently asked by farmers the price, and several times when I told them, "Can you make anything growing turnips at that price?" It so happened that corn was then selling at the same price, and I said to them, "You grew on an average less than fifty bushels of corn to the acre, and gave it the entire season and several thorough workings; I grew an average of 200 bushels of turnips to the acre, and grew them as a second crop and gave them no cultivation at all." I will say here that 200 bushels is a very moderate crop, and that I have grown 500 bushels on an acre of highly-manured land that had grown two crops besides the same season, the first crop being early peas that were marketed by June 10, and the second crop pickles, and the turnips were sown about the 1st of August at the last working of the cucumbers. I believe that it is easier to grow 1,000 bushels of turnips on an acre than 100 bushels of corn.

As to the time of sowing in Kansas, that may be best regulated by the season. Let the ground be made ready by the middle of July, and then sow the seed, as the ground may be in good condition any time in the last half of July or first half of August; and in a season of unusual drouth about that time, we would not hesitate to sow as late as the first day of September in any part of the southern half of the State. It is better to sow after a rain, rather than before a rain. A summer rain starts a fresh crop of weeds every time, and if the sowing is postponed until after the rain, the weeds are set back when the turnip seed is put in. And a heavy rain is apt to produce a crust on the soil surface which impedes the early growth of the plants. Sow as soon after a rain as the ground will work well.

As to method of sowing, Mr. Brown, above quoted, prefers broadcast sowing, and our experience is in the same direction. We quote what follows from an article of Mr. Brown in the *Farmers' Review*:

"I prefer to sow broadcast, and use no mixture of any kind with the seed. Use only the thumb and forefinger and sow a strip five or six feet wide, making one cast to every two steps, and you will not be likely to get them too thick. About one pound to the acre is right. Should the turnips be too thick they can be thinned by running over them with a light harrow, and the best time to do this is on a bright sunny day, when the plants are two or three inches across. Run across with the harrow, and then wait a few moments to see how many plants wilt, and if once does not thin them enough, cross harrow. A single plant to the square foot will give a larger crop than closer planting, and if I was growing for stock and the land was rich, I should expect the largest crop

from about one plant to each two square feet; but as a large turnip does not sell well in the market, when growing them for sale I leave them thicker, say two plants to the square foot, and then gather the larger ones as early as the weather will admit, and let the smaller ones grow longer. There are 43,560 square feet in an acre, and the legal weight of turnips is fifty pounds to the bushel. If we can grow a turnip weighing one pound on each square foot, it will give a crop of nearly twenty-two tons to the acre, or 871 bushels. I think it would be easier to grow turnips that would average two pounds each with two square feet to each plant, than one pound each with one to each foot. A compact seed bed is absolutely necessary for turnips. The land should be plowed at least a month before sowing, and two months is better, and by the use of roller and harrow, it should be made fine and solid. When the time comes to sow, harrow so as to make two inches of the surface mellow; then sow the seed and cover with a light plank drag; this will cover the seed lightly and press the earth to it so that it will germinate at once. A crop of clover may be cut for hay and the stubble turned under in June, and at once rolled and harrowed flat; then during July top-dress with six or eight loads of fine manure, and harrow till thoroughly mixed. If one has not clover land, and can burn off a piece of wheat stubble, it makes a good condition of soil for turnips, for the ash fertilizes the land, and the burning kills the insects. It will pay to draw out a few loads of straw and spread on the stubble so as to make the burning thorough, and then this land should not be plowed, but three inches at the surface made fine. If the land is rich it will grow a good crop without the manure, or if you have not fine manure, there is perhaps no crop on which commercial fertilizers can be used with as great certainty of good results as on this. Unlike beets and carrots, turnips are in the best condition for feeding in the early part of the winter, and will be valuable in finishing off bees for the Christmas market, but if pitted they will keep in good condition for spring feeding. A little freezing, if not disturbed till thawed, does not hurt them, and I have wintered them successfully with but a foot of earth in coldest winters. Pit them on land with a gentle slope, plow four furrows ten inches deep, and throw the loose earth out at the sides, then pile the turnips in the trench so the top will be about three feet high and the sides slope at an angle of 45 degrees, and then throw on the earth. It will take from twenty to twenty-five feet of pit to each 100 bushels, and a man should cover 500 bushels or more for a day's work. I have never fattened cattle so rapidly as when I fed in connection with grain a bushel a day of turnips. I have in this way fattened old cows in two months' feeding so as to double their value, when it would have been well nigh impossible to have fattened them on grain alone. I will sum up the points to be observed in successful turnip growing: 1. A thoroughly prepared soil, fine and compact. 2. Sowing after a rain, so as to give the crop a vigorous start without weeds. 3. A good variety, and the Purple Top Strap Leaf is among the best. 4. Not too early sowing. 5. Thin seeding or thinning so as to give plenty of room."

MONEY--ATTENTION.

In any Amounts From \$200 to \$100,000.

To Farmers and Ranchmen—in Eastern and Central Kansas:

If you want to borrow money or refund present incumbrances on your farm, at reasonable rates of interest, with or without commission, write direct to us. No delay, when security and title are satisfactory. We make a specialty of placing large loans—from \$2,000 to \$100,000—at lower rates and less commission than any agency in the State. Money ready when papers are executed. We want nothing but first class improved or partially improved farms and stock ranches. Address

A. D. ROBBINS & Co.,
179 Kansas Ave., Topeka, Kas.

Spurgeon said in one of his recent sermons: "If God told me to go out to the cemetery and wave my pocket handkerchief over the graves of the dead and make them live I would do it, and they would live, for God would give me the power if he gave me the command."

Kansas City Fat Stock Show.

We are in receipt of a copy of the general rules and premium list of the Kansas City Fat Stock Show, to be held from Saturday, October 23d, to Saturday, October 30th, next. Any interested person can obtain a copy by writing the Secretary, J. W. Sanborn, Live Stock Exchange Building, Kansas City, Mo. We would be pleased to see Kansas farmers interested in this show, and hope they will at least attend and study the different breeds of stock exhibited. What farmers most need in the stock line, is the most profitable breed for the purpose intended, and there is no better place to find good meat animals than at a fat stock show.

General premiums run from \$25 in the sheep and hog departments to \$100 in the cattle.

A large number of special premiums are offered, as follows:

The American Short-horn Breeders' Association voted to duplicate all premiums taken by pure-bred Short-horn cattle at Kansas City and Chicago Fat Stock Shows. The American Short-horn Breeders' Association also voted "That we authorize the societies offering such premiums to give assurance to the public that we expect to duplicate the premiums offered by them for the year 1887."

The Kansas State Short-horn Breeders' Association will duplicate all premiums awarded to Kansas exhibitors of Short-horns or Short-horn grades.

The Clinton County (Mo.) Short-horn Breeders' Association will duplicate all premiums on Short-horns and their grades taken by any breeder living in Clinton county.

The American Hereford Breeders' Association will duplicate all awards made to pure bred Hereford cattle, and to grades sired by registered Hereford bulls.

The American Aberdeen-Angus Breeders' Association will duplicate all awards to Aberdeen-Angus cattle, and to their grades sired by registered Aberdeen-Angus bulls.

The Garry Iron Roofing Co., of Cleveland, Ohio, will give a corn-sheller for the best pure-blood yearling Aberdeen-Angus steer. (Value, \$5.)

The U. S. Wind Engine and Pump Co., of Kansas City, will give one ten-foot Halladay windmill, valued at \$100, for the best pure-blood or grade Galloway steer.

The Garry Iron Roofing Co., of Cleveland, Ohio, will give a corn-sheller, valued at \$5, for the best yearling grade Galloway steer.

The *Live Stock Record and Farmer*, of Kansas City, will give a Belle City feed-cutter, value \$38, for the best thoroughbred yearling, one and under two, that has taken first or second premium in class.

The Mohle Plow Co., dealers in farm machinery, Kansas City, will give one Field's Favorite feed-mill and horse-power combined, valued at \$85, for best car load of twenty or more fat hogs, exhibited by feeder.

The Garry Iron Roofing Co., Cleveland, Ohio, will give one corn-sheller, valued at \$5, for best barrow or spayed sow, any age.

The *Live Stock Indicator*, Kansas City, will give a premium for best five fat hogs, under twelve months old, bred and fattened by exhibitor. Two or more lots to compete. (Cash, in gold, \$25.)

Trumbull, Reynolds & Allen Manufacturing Co., Kansas City, will give one Dain riding hay-gatherer, with steel wheels, valued at \$25, for the best carcass of shoat under nine months. Other things being equal, the shoat that yields the largest per cent. of lean to fat, that can be separated by a knife, will receive this premium. A statement of the foods given must accompany the entrance for this premium.

The Buford & George Implement Co., Kansas City, will give one Rock Island Clipper steel-beam plow for the best lot of five barrows or spayed sows, any age or breed. (Value, \$20.)

Bradley-Wheeler Manufacturing Co., Kansas City, will give one Diamond feed-mill and horse-power, valued at \$90, for best car load of twenty or more fat sheep, exhibited by breeder.

The Garry Iron Roofing Co., Cleveland, Ohio, will give one corn-sheller for best fat wether, any age or breed. (Value, \$5.)

Kansas City White Lead and Linseed Oil

Co. will give one ton of oil cake meal for best lot of five fat wethers, any age or breed.

The Standard Implement Co., Kansas City, will give one Little Yankee sulky plow for the best draft horse, any age or breed.

Mr. M. Wright, jeweler, Kansas City, will give one silver water set as second premium on heavy draft horses. (Value, \$30.)

The Garry Iron Roofing Co., Cleveland, Ohio, will give one corn-sheller, valued at \$5, for best carcass of wether, any age.

In addition to the special premiums stated in this list, will be found the special of the *Breeder's Gazette*, as given in the premium list already issued.

The Secretary earnestly invites all those contemplating competing for any of the general or special premiums offered, to notify him at once of the kind and number of animals they intend to show and for what premiums they will compete.

An effort will be made to induce the breeders of pure-blood draft horses to compete; only a limited number of select horses, however, can be accepted.

We already have assurance of a very successful show. J. W. SANBORN,
Secretary.

Are You Going South?

If so, it is of great importance to you to be fully informed as to the cheapest, most direct and most pleasant route. You will wish to purchase your ticket via the route that will subject you to no delays and by which through trains are run. Before you start you should provide yourself with a map and time table of the Kansas City, Fort Scott & Gulf Railroad (Memphis Short Route South). The only direct route from and via Kansas City to all points in eastern and southern Kansas, southwest Missouri and Texas. Practically the only route from the West to all Southern cities. Entire trains with Pullman Palace Sleeping Cars and free Reclining Chair Cars, Kansas City to Memphis; through Sleeping Car Kansas City to New Orleans. This is the direct route, and many miles the shortest line to Little Rock, Hot Springs, Eureka Springs, Fort Smith, Van Buren, Fayetteville and all points in Arkansas. Send for a large map. Send for a copy of the *Missouri and Kansas Farmer*, an 8-page illustrated paper, containing full and reliable information in relation to the great States of Missouri and Kansas. Issued monthly and mailed free. Address J. E. LOCKWOOD,
G. P. & T. A., Kansas City, Mo.

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The Home Circle.

My Own Country.

The west wind blows, the ruffled rose
Is drooping in the vale;
The fragrant flow'rs of woodland bow'rs
Make sweet the cooling gale.
Earth's flow'rs may bloom awhile for some,
But nevermore for me!
The sun is low, and I must go
Home to my own country.

Oh, sweet and fair the flowers there,
Yes, sweeter far than here;
One spring for aye; one endless day;
Fields never turning sere!
Oh, sweet are all the streams that roll
Along each heavenly lea!
No pain nor gloom can ever come
Into my own country.

I would not live; I could not grieve
Longer in this strange land,
Since I may tread the streets o'erspread
With gold by God's pure hand!
Ah! then adieu, sweet friends, to you;
Would you could go with me,
To walk the streets, and taste the sweets
Which bless my own country!

Oh, stay not long when I am gone;
Come over soon to me;
You're welcome where the blest ones are;
Come to my own country!
Earth's flowers may bloom awhile for some,
But nevermore for me!
The sun is low, and I must go
Home to my own country.

—The Current.

I dare not praise you, lest you overpay
My praise with thanks; so, since we have
One joy
In common, let me wish you for your boy
All blessings that unceasing, day by day,
Fathers and mothers for their children pray.
For him, may fickle fortune prove less coy,
Love's sweet less bitter, gold with less alloy
Than we have found them, who are growing
gray.

Our children keep our hearts forever young
In Time's despite. I, in my little maid,
Renew my youth, as you do in your son.
We echo all our sweetest bards have sung
Of such beloved; hopeful, yet afraid,
Because our hopes are centered all in one.
—Mary Grace Walker.

My son, if thou hast sinned, make reparation
straight;
For suffering doth on sin sooner or later wait.
What reparation then? This only—to repent
And feel a glad, sure sense of instant betterment.
—Wisdom of the Brahmin.

More About the Glorious Fourth.

Enclosed please find a clipping from the Toledo Blade on this subject of celebrations. Since my former letter I was surprised to hear the remark from a well-meaning person, "I for one, had no desire to hear that worn-out harangue of the Revolution," etc. How suggestive of the spirit of the masses. People with this sentiment could easily stand unmoved and see our dear old flag riddled with anarchist's bullets. Such an event might stir the slumbering loyalty in them, but the spirit is dying—starving. The old-fashioned barbecue, with its processions, orderly to military precision, its stirring speeches, the great table where the people were made to feel as no where else, that universal sociability peculiar to Americans, all these are things of the past; and is patriotism, upon which depends the preservation of our Government, to pass away, also? Is there no way to revive and perpetuate these sentiments? Those of us who during the war were surrounded with all the hardships and difficulties it was possible under the circumstances for a rebellious people to inflict, remember as though 'twere yesterday the enthusiasm with which we were wont to greet our National ensign as it passed floating above that long line of boys in blue, sometimes on foot, and at other times cavalry. Often have I seen the whole line raise their caps and respond with a cheer at a loyal signal, which was a rare thing to them, and dangerous to those who gave it. But patriotism did not regard danger, rather defied it, and gloried in the opportunity. But after twenty years the remnant of those soldiers upon whose heads the frosts of winter are fast falling, we see paraded as a part of the spectacle for the amusement of a multitude, not one in a hundred of whom appreciate the pre-eminent position they occupy in the nation's affections sufficiently to even raise their hat in honor. When we look upon them, remembering that to us they were the protectors of life and home, the preservers of all that we held dear, it is with feelings of unutterable

sadness that we look on this tiresome display of sham patriotism, got up by people who most certainly either do not comprehend or do not regard the grave import of what should be the principal ceremonies of this day of days to the present and future generations.

M. J. HUNTER.

Here is the article:

THE NEED OF PATIOTIC TEACHING.

From every part of the country come reports which show that the present week's Fourth of July has had a more general celebration than for many years past. This is as it should be. We want a revival of patriotism all over the country; and we need it especially for the generation of young men—aye, and young women, too—who are preparing to step upon the stage of active life, and into whose hands we of the present generation must soon, in the very nature of things, yield the direction of our country's progress and destiny. The recurring birthday of our independence is by all means a fitting occasion for training in the lessons of patriotism. How many of the boys and girls of your household, of your town or city, ever read the Declaration of Independence, or have any clear idea of the causes which led the thirteen colonies to take up arms to establish a new nation? Not one in ten—nay, not one in fifty. This should not be so. Let us have more teaching of patriotism. Make the boys and girls proud of the old flag, and inspire in their hearts that love of freedom which burned so brightly upon the altars of the Revolution.

And this is not all. There is a sad ignorance among the people, and especially among the young, of the fundamental principles upon which our Government is based. No system like ours, in which the will of a majority of the people is the supreme law, can be enduring unless the masses of the voting population understand clearly its principles. These should be inculcated in youth. This is all the more necessary at the present time, as we are in an era of reaction after the civil war. There is at the present time a disposition on the part of the people of one section, at least, to establish the justice of the secession cause, or to speak of its downfall as the triumph of the stronger; they do not wish to admit that the whole doctrine of States' rights and secession was a hideous error. Yet it was, and had there been a clear understanding of the principle that the Union is an irrevocable compact, and that the loyalty of every citizen is due to the Nation rather than to the State in which he was born or of which he is a citizen, there would not have been four years of bloody strife to establish it.

What Must "The Talkers" Say?

It is true that some people are gifted with a ready flow of language, while others, and the majority, are embarrassed and blundering in speech; if called upon to express a thought, no matter how familiar they are with the subject.

It is true, also, that a part of the education of young people should be the training to express ideas in the clearest, simplest, and thus the most forcible manner, also to bring out all there is to be said upon the matter in hand.

There may be many pleasant and entertaining methods resorted to by which to gain this end. One may be to give a subject, and at the expiration of a few moments, require a concise, exhaustive discourse upon that subject. In a certain literary society with which I was acquainted, these conversations were called "three-minute speeches." The members of the society endeavored to fill up the three minutes with "talk" upon the subject given them. In every case we fell short of talking our three minutes, showing the fact that we still needed training in bringing out points and elaborating our themes with readiness. This brings me to the point with which I started out—"What must 'the talkers' say?"

This is sadly suggestive of what the average talker in reality says. We have all heard some untrained, uncultured person talk. The talk of one whose aims are low, whose interests are of the most sordid kind, is a travesty upon the art of conversation. The average talker is a few steps in advance of such an one, but the silence of either is indeed golden, though their speech may not be silver.

With what pleasure we turn from either to one whose discourse is the outcome of in-

telligence, culture, purity, and dignity of character.

We cannot, parrot-like, learn our "say;" there must be a fountain from which we can draw forth living words, and if the abundance of the heart is truth and charity, with knowledge and culture close at hand, the mouth shall speak only such words as shall do the speaker credit and his hearers a favor.

I am glad that times are changing, and that useful domestic education is becoming the order of the day here, as in other countries, among the better classes.

It speaks well for our own State, that there is a place where a wise, cultured woman is training young women to be intelligent home-makers, who shall "open their mouths with wisdom."

The subject of reading, in this connection, is too prolific to permit me to enter upon it here.

Shall we not place only such literature before our families as shall do its important part in instructing and edifying?

PHOEBE PARMALEE.

The Complexion.

To obtain a beautiful skin one must begin and diet properly. Butter, fat meat and greasy food of every kind must not be eaten. Coffee and tea must be given up, so must claret and all kinds of wine, and milk or lemonade substituted. Fruits and vegetables should be eaten in abundance, rich candies and cakes avoided, pie never should be touched, and pickles and acid food generally should be dispensed with. A woman who follows the above rules will find that her skin will become smooth and clear after several months have passed. Of course, the dieting must be thorough and careful. No improvement can be made unless it is.

A tablespoonful of sulphur taken every other morning for a week, and then not taken again for three days, and then taken every other morning for another week, is one of the best things to clear the complexion. It acts like magic. It should always be mixed with molasses or something that will clear it from the system.

A great deal depends upon the constitution of the person and the kind of complexion she has. What will help one woman wonderfully will have no effect whatever on others. One thing is certain, however, milk is always conducive to softening and whitening the skin, and it is a noticeable fact that girls who have never been allowed to drink tea or coffee, and who have drunk quantities of milk, have generally, when they reach the age of 20, very beautiful complexions.

Hot water is also one of the best things with which to keep the complexion in order. A tumblerful should be drunk one hour before every meal. If it is disagreeable by itself, the juice of half a lemon should be added. Sugar should not be used. Most women in summer time are too careless of their complexions, and when winter comes, and they go out to balls and parties, they regret it. The sun is excellent for the complexion if it does not get too much of it. A little browning and freckling is oftentimes very beneficial, but when the face is exposed to too great measure of the sun's rays the skin is apt to become coarse. Veils—very thin ones—should always be worn at a seaside resort, unless parasols are carried. The salt air and sun together are bad for the complexion, though excellent for the general health.

The face should always be washed in water that has the chill taken off. Warm water is not good for the complexion, despite all that has been said to the contrary; neither is really cold water. The one makes the skin flabby, and in time wrinkles it; the other roughens it. Oatmeal and Indian meal water are both excellent for washing the face and hands in. The meal softens the skin and gives it a delicate flush which is very becoming. The majority of women will also find that salt water will help their complexions. Get 10 cents' worth of rock salt every month, and wash in a basin into which a good lump of it has been placed. Rain water is an excellent thing for the skin, and there is as much truth as poetry in the saying that the "early dew of the morning will make like the face of an angel the woman who bathes in it."

"That tired feeling" from which you suffer so much, particularly in the morning, is entirely thrown off by Hood's Sarsaparilla.

The Suffering of Shy Children.

Pity the sufferings of shy children; stand between these little ones and the people who unthinkingly or cruelly inflict pain upon these tender souls. Why outrage a child's faith in nature, human and material, if he has such faith, or prevent his acquiring it, by taking advantage of his shyness and want of self-confidence? Why fill him with distrust, with fear, with terror? Why convert the world, that should be beautiful to him, into one that is to be dreaded? If the person who does these things is anything short of a brute, he is still guilty of a serious offense that no carelessness can excuse.

Courage and confidence should be stimulated in a child who is shy. He should be taught to believe that his extreme distrust is ill-founded, by showing him the source of his error. A happy life will then be opened to him, where all before was desolate. But to intensify this shyness is an easy matter, and many children have been made to suffer the pangs of a miserable existence through scaring, terrifying and various impositions upon their weakness. If a child is abashed at the presence of a stranger, confidence in himself and the stranger also can be awakened by treating the child with considerable regard for his feelings and by a gentle pressure behind him that shall force him to overcome them. But to expose the infirmity and laugh at it in ridicule, increase the pain and make the cure all the more difficult, so that the sufferer must undergo additional pains when he grows up, and must overcome them the best he may in his unavoidable contact with the world.

What a gratifying thing it must be to scare a child, to fill his heart with hobgoblins, to people the darkness with monsters, to manufacture surroundings that incessantly menace harm. This would be amusement to the savage who burns his captives at the stake, but to the person living in this nineteenth century of civilization, it should be as repulsive as savagery itself. How pleasing an act it must be to frighten a child to death, as is now and then done, or to scare a little one till he stands transfixed with terror and trembling in agony.

Strengthen shy children to bear their misfortune and to overcome it; do not subject them to ridicule or fear. They can be led out of the manifold unhappiness arising from shyness, by strengthening each cautious step until familiarity makes it permanent; and so, little at a time, they can be advanced in confidence and courage until they dare to look about them without fear of failure or harm. The impressions of childhood are often almost ineradicable; people should take care, then, that those impressions shall be true, hopeful, giving self-confidence and courage to those who need it. There can be assault and battery against the feelings as well as against the body, and the former offence is more enduring and more painful than the latter. It is just as inalienable a right that one's feelings should not be outraged as that his bodily liberty shall not be abridged, and the shy child demands immunity and protection from those who outrage this right by making him a victim of his shyness.—Good Housekeeping.

By using comb foundation the labor of the bees will be much reduced and therefore more honey may be expected.

A cooling breeze
Stirred all the trees
With music soft and sweet,
The rain drops fell
In the quiet dell,
Like the patter of fairy feet.

The flower held up
Its fragrant cup
To catch the welcome rain,
Each lily bell
In the beautiful dell
Swung to the low refrain.

—Margaret Veeder.

On her death-bed three months ago Eva Hebron, of Bound Brook, N. J., warned her husband Edwin if he valued his peace of mind not to marry again. He promised solemnly that he would live and die a widower, and his wife passed away contented. A short time ago he married a widow, and afterward constantly believed that he was haunted by the spirit of his dead wife; his dreams were hideous, and his wakeful moments frightful. One morning last week he was found dead in bed, and his neighbors and friends believe that his death was caused by sheer fright.

The Young Folks.

Only.

Only a baby, kissed and caressed,
Gently held to a mother's breast.

Only a child, toddling alone,
Brightening now its happy home.

Only a boy, trudging to school,
Governed now by sterner rule.

Only a youth, living in dreams,
Full of promise life now seems.

Only a man struggling in life,
Shared in now by a loving wife.

Only a gray-beard, toddling again,
Growing old and full of pain.

Only a grave, o'ergrown with grass,
Dreams unrealized, rest at last.

—Charles Gatchell.

A Burning Mountain in the Northwest Territory.

A most startling story comes to light here. A party of five young gentlemen from the maritime provinces, under the guidance of an Indian guide, left here a couple of weeks ago to hunt in the Manitou river district, in the Northwest territory. To-day the five sportsmen returned en route for home. They brought no game, but instead came burdened with a most marvelous story of a burning mountain in their hunting district. The parties' names are Messrs. Sutton, Williamson, Van Horne, Cribbs and Alexander. The district in which they went hunting lies about fifty miles to the south of the Canadian Pacific railway track from Brule, on the highlands near the Manitou river. This locality is just north of the United States boundary line from Black Duck lake in Minnesota. They report having left Brule in company with their guide, and journeying south. After traversing some distance they met a mountaineer's family on the way into the town, with all their goods and chattels packed on two lean-looking horses. The mother carried a sick child in her arms, and two little girls, whose tow-heads were fleecy-grown, toddled along barefoot after the father. Two sons and a daughter led the way.

Their appearance showed that they were leaving hastily for some reason, and on being interviewed by the would-be hunters, they said they were fleeing from the region in which they had lived on account of "some terrible fire." They said that they had lived from hand to mouth on a patch of cleared ground on a mountain side, whose base formed a portion of the Manitou river's bank; that the terrible fire was somewhere over behind or in under the mountain; that no smoke was visible, but that the air was stifling hot, and the river at certain points so hot that the fish died in it. The first intimation that the father, whose name is Malcolm, had of this strange phenomenon, was the unusual sight of a great number of dead fish in the Manitou. The ice in the river in their immediate vicinity had broken up earlier than usual this year, but the men had been greatly surprised to find that both above and below the places where they lived, the ice had remained the normal length of time. Strangely hot winds also came down into the valley, whilst elsewhere the atmosphere was of wintry chilliness.

The hunters, in tracing the cause of the farmer's great excitement, found that it was evidently owing to the subterranean heat in the mountain's side, which extended under the river's bed; and about a mile further up the stream became so hot that it heated the water, which flows slowly there, until steam rose from the surface, near the banks. This was faintly noticeable for a short distance farther up, but beyond which the water by degrees resumed its normal state. The atmosphere was found to be very warm, and the slightest exertion brought out the perspiration. Close to the spot where the farmer had lived the hunters found the air to be almost stifling, and there also the earth was too hot in places to touch with the hand. Nothing else was noticeable, the mountain being bleak and bare from winter, but farther back on its sides the heat was absolutely unbearable. After climbing up its thickly-wooded sides for two or three hundred feet, the hardy hunters were forced to return, as the air was simply suffocating. Animals had left their retreats, the birds steered clear

of the locality, and not a living thing was to be seen.

The earth was dry and cracked with the heat. Dead snakes without number and vermin were discovered by the hunters. The heat, instead of diminishing, was found to increase the higher they went up the mountain's side; the cracks in the earth widened and new ones appeared, and the locality became uninhabitable. It was no wonder, they say, that the terror-stricken family, depressed in the knowledge that something strange and terrible was taking place in the earth beneath them, and living in the midst of stifling hot winds, whose increasing heat brought to their terrified and ignorant minds pictures of burning fields and volcanoes, had resolved to abandon the uncomfortable region.

The town of Brule is very much excited over the discovery, and on Wednesday a party of half a dozen men started for the scene of the burning mountain. It is about five or ten miles from any habitation at present existing. Men well acquainted with the geology of the province declare that the location of this volcanic area has been fixed to a nicety, and might be with reason expected. Their theory is that the bituminous coal, in which this mountain range is known to be rich, has by some phenomenal means become ignited; the vast and smouldering mass far down in the mountain's heart, thus making a mighty cauldron of the Manitou river's bed.

Some Little Black People.

Discoveries made every once in a while show that, much as we think we know in our time, there is yet a good deal to be found out. An explorer in south Africa, Mr. G. M. Farini, has been investigating a new race of people there. They are negroes. They are a tribe that are as really dwarfs as any you ever read about in fairy tales. They are not magicians, however, like the dwarfs in the story books, but they are very cute and quick.

Two other travelers had seen these little men before, but could not get near them. Mr. Farini made friends with them by making gifts to them. The tallest are only four and a half feet high, no larger than a boy of 11. They look like children 9 and 10 years old, yet they have their babies, and their uncles and aunts and families, just the same as big folk.

They seem to have no language of words. They utter sounds of some sort as animals do, something like squealing and quacking, and thus talk to each other. But nobody yet has been able to understand them any more than he can pig talk or horse talk.

Strange to say, these tiny negroes are the bravest and shrewdest of all the races near Lake Ngami, where they live. They shoot wild animals with bows and arrows. They are cunning enough to dip the end of the arrow into poison, so that it kills whatever it hits, sure shot. When the game is dead they eat out of the poisoned arrow and the flesh near about it, cook the rest, and eat like pigs. They have excellent appetites.

They hunt the ostrich in a queer way. An ostrich is shy and wild, and will not let a man come within a mile of it if it sees him. But these tiny negroes take an ostrich skin and put it all over their heads and bodies. Then they hold the head and long neck in their hands, bending it down to look as if the bird was scratching and picking for food. Their little black legs look like the ostrich's. In this way they sneak up close to a flock of the wild birds unsuspected. They take aim, let fly their arrows, and down comes their huge game. Sometimes, too, they lie flat upon the ground, and crawl noiselessly along, face downwards, and in that way get near the animal they wish to shoot.

One explorer gave this small race the name of "Akka." They do not have any chief or head, but live in families. They haven't the slightest idea of any sort of religion. How could they when they can't talk, and thus cannot have any preachers? Not having any ministers, either, they don't have any weddings or marriage ceremony, but just pair off as the birds do.

They are bronze-colored, with the tiniest possible hands and feet, and are as quick and active as squirrels. They get their living easier than anybody else known. When hungry they shoot the first wild animal they can find, and cook and eat it on the spot. When night comes, wherever they are, they just dig a hole in the sand, get into it and go to sleep. They never have any houses.

Private Yachts.

New York millionaires, not knowing what all to do with their money, are spending it in building magnificent steam yachts to go around the world in. Mr. Astor has his Nourmahal, Jay Gould the Atalanta, and now W. K. Vanderbilt, son of W. H., is building one in some respects more magnificent than the rest. Such yachts, so called, are as large as small ocean steamers. Vanderbilt's is to be 285 feet long. Any of these private steamers can carry 300 to 400 passengers. The Vanderbilt yacht is a steamer of over 1,300 tons burden. Her owner now belongs to the American Yacht Club. He has made a new departure for a Vanderbilt. It is said that William H., when he was a boy, and the old Commodore before him, when he was a boy, were obliged to row ferry skiffs containing passengers from Staten Island to the Battery. This was a tremendous row and gave the Vanderbilts such a distaste for salt water that none of the blood have heretofore owned a yacht. Now W. K. has changed this. These private steamers can go around the world, if necessary. They are built and fitted up in the most luxurious manner, at an expense of many hundred thousand dollars. They have been built solely for the pleasure of the magnates who own them, that they and their families and friends need not associate with the common people even in traveling and recreation tours.

A young lady in San Leandro dreamed that she was riding and that the horse was running away. She jumped and fell from the bed to the floor, dislocating her shoulder.

A novel shower of rain occurred at Sacramento, Cal. The stars were shining brightly at the time, and a brisk breeze was blowing from the south. The rain drops were very large, and for about a minute they came down thick and fast.

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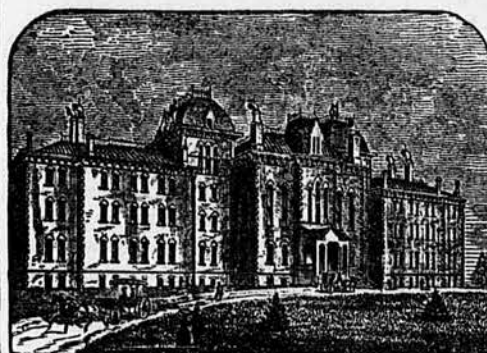
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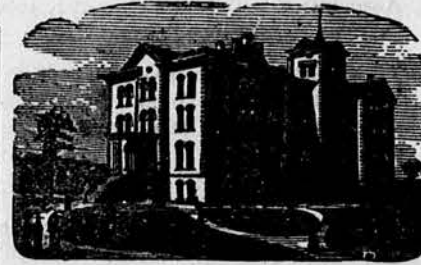
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Advertisers will find the KANSAS FARMER the cheapest and best medium published for reaching every part of Kansas. Reasonable rates for unobjectionable advertisements will be made known upon application. Copy of advertisements intended for the current issue should reach this office not later than Monday.

Address **KANSAS FARMER CO.,**
Topeka, Kas.

Don't let any fruit or vegetable go to waste if it be possible to avoid it.

Tomatoes are very nice canned, and the process of canning is not difficult.

The Edwards County Agricultural Association will hold a Fair at Kinsley, October 12th to 15th inclusive.

Senator John Sherman's wife stays at home during the busy seasons and superintends their farm while her husband is engaged in public duties at Washington.

Where from any cause the potatoe crop is short on the first day of August, let it be remembered that another crop may be raised after that if early varieties are used for seed.

From the July 1st report of the Georgia State Board of Agriculture, we learn that the average wheat yield in that State this year is four and eight-tenths bushels to the acre.

We hope our horticultural friends will be patient over the non-appearance of their addresses in the FARMER. They are good enough to keep over until we can find room for them at the rate of one or two a week.

Secretary Sims' report for June 30th, shows a slight increase in wheat over the last preceding report. His estimate is 14,200,000 bushels for the State, a little more than 50 per cent. of the average of five years last past.

A Raleigh, N. C., dispatch of the 14th inst. says that heavy and continuous rains throughout the State have caused the greatest flood since '67. The damage to crops in many sections is well-nigh total, and in others from one-quarter to one-half.

Breeders of Clinton county, Mo., advertise a stock show and basket picnic in Vance's Grove adjoining Plattsburg. A committee on arrangements is appointed, and they invite strangers and lovers of fine stock to be present and partake of their hospitality.

The Daily Capital says there has been about \$11,000 paid into the county school fund in fines in liquor cases since Mr. Curtis became County Attorney of Shawnee county. The liquor men have paid in the neighborhood of \$4,000 in costs, and the county has not paid over \$50 costs in whisky cases.

SEVEN THOUSAND TEACHERS AT TOPEKA.

The meeting of the National Educational Association at Topeka last week was an occasion of much more than average importance. Every State in the Union was represented, and it was estimated that at least seven thousand teachers were in the city. Arrangements had been made by resident teachers and other citizens to take care of all who should come, so that notwithstanding there were many times as many strangers in town as the hotels could accommodate they were taken to the homes of the people and cared for without trouble and at very little expense. The department meetings were held at different places in the city, as Music Hall, Library Hall, Senate Chamber, Representative Hall, and others, and the general meetings were held in the Grand Opera House. The teachers appeared to be well pleased with the treatment they received by the citizens, and in return the people were very much pleased with the presence of so many well behaved and intelligent strangers.

Such a meeting has a great influence. Cultivated men and women from all parts of the country coming together for purposes of mutual improvement must of necessity result in good. And when the ulterior aim is the use of the good and new things learned in doing good to their fellow citizens through the agency of schools, it is impossible to estimate the extent of such influences. Everything good learned on the way here, during the stay and on the return, will be taken to the homes of the teachers and to their work, where it will be as good seed sown on good ground. The whole State of Kansas was honored as well as benefited by the meeting, and the influence of the occasion and the work done will be felt among our people a long time.

The meetings were so numerous, so largely attended, and the work done was so various and so important, that it would be impossible to crowd into one issue of a weekly paper anything like a fair report. The daily papers of the city were full every day of the proceedings and gave only abstracts of most of what was done. But there was one feature of special interest from our standpoint—the industrial exhibits, showing the work actually done by pupils at school. Several States were represented in these exhibits, as Indiana, Ohio, Michigan, Illinois and Kansas. The work consisted of penmanship, drawing, needle work, carving, mechanical work in iron, clay and wood, descriptive work in entomology, botany, etc. Among these the State Normal School at Emporia, Kas., and the State Agricultural College at Manhattan, attracted more attention, especially among Kansans, than any of the others. President Taylor had charge of the Normal display and President Fairchild took care of the College exhibit. Both are very creditable to the schools respectively and to Kansas, giving abundant evidence of the excellent character of the work done in those institutions. It would have required a great deal of labor and time to note everything on exhibition, in either room, and we did not undertake anything of the kind, but in the little college paper, the *Industrialist*, we find a statement of the college exhibit from which the details below are gathered:

The department of Natural History can with difficulty transport samples of work and apparatus, and therefore its exhibit has been confined to the microscopic outfit furnished each student, with samples of mounted objects, to botanical specimen books, and

to charts and preparations made by students in connection with class work. Samples of two patterns of compound microscope are shown: of these the department has sixteen; and each student of the senior class is furnished with one, together with tools, etc., with which he works two hours every day during one term.

The botanical specimen books show samples of work done by students of the first year in the course. The work of collecting and mounting specimens, however, forms a very inconsiderable part of the course—occupying but a part of the student's time near the latter part of the term.

The geological charts represent work done by fourth-year students at the end of a ten weeks' course in geology. Such charts, one by each student according to his own design, are required of the class.

The zoological charts are made by special students in connection with work performed in the laboratory. Each subject that is studied is similarly illustrated.

Six anatomical preparations are shown, namely, of rabbit, striped gopher, spotted salamander, fish and mice. These specimens exhibit the several organs in the various animals in natural position, and are selected from special student work done in the laboratory.

For anatomical work there are dissecting boards for large specimens, and zinc trays for the smaller—the latter with wax-covered bottoms for dissection under water. The usual variety of dissecting scalpels, tenacula, blow-pipes, chains and hooks, scissors, bone-saw, syringe, etc., are found.

Also for geological work, hammers, chisels and picks.

The zoological specimens consist of nearly one hundred stuffed birds and as many skins; a few mounted mammals; a large collection of reptiles, fish, etc.

The Chemical department of the college has the best equipment in the State.

The exhibit of the Printing department consists of a miscellaneous assortment of pieces. In the book of specimens are hundreds of different jobs, some of which would not be pronounced first-class by any job printer; but the attempt is not to show the best work that the best students could do, but, rather, to show a line of all the work done by all the students in the department. There is no attempt at any classification worth speaking of; the meritorious jobs appear on the same page with those having less creditable appearance.

The Industrial department exhibited about two hundred drawings, mostly regular class work of the past year. They are arranged on the walls so as to indicate the methods followed in teaching and the progress of the pupils.

In the Carpentry exhibit were many interesting specimens of the students' handiwork. The work of beginners shown to a very limited extent in simple sawing, planing and joint-making. Samples of dovetailing and compound tenoning illustrate more advanced work, while the finished tools, chest, show cases and furniture show work of students advanced in the course who have given extra effort for skill. The models of church, roof and bridge frames are given as examples of higher practice work.

The work shown in entomology was chiefly that of advanced students, with samples only of the ordinary elementary collections which each of the eighty students in the class of the past year has been required to make.

The exhibit of the Engineering department consists of maps of the College

farm and grounds, drawn by members of the surveying class from surveys made by the class; and of engineering drawings illustrating these prepared and read by members of the class in civil engineering.

The samples of sewing work shown were such as have been made during the past six months in the regular practice hours of the classes. They include plain and ornamental needle work, machine work and hand work, lace work, fancy knitting, piecing and patch-work. Dress-fitting and making has been a prominent part of the work, more than 150 dresses having been made during the past year in the sewing rooms. Garments of all kinds have been made to the number of 650, very few samples of which can be shown because they were made for immediate use. The young ladies of the graduating class made their own dresses for the occasion.

The model kitchen, shown by photograph, is well equipped with conveniences for best work in the culinary line.

Complaint of Dry Weather.

There is a good deal of complaint about the weather. The unusual heat of two weeks ago was hard on fresh corn tassels and injured some, probably beyond recovery. Subsequent dry weather has caused more or less discontent in some quarters through dread of a long-continued drought. It is seldom, indeed, that farmers pass a season without more or less dry weather. The prudent husbandman always considers drought as one of the probabilities, and he prepares himself accordingly. Where corn ground was well plowed and well worked after planting, growing corn will endure a great deal of dry and warm weather. Where the ground was badly plowed or not plowed at all before planting and badly worked afterwards, it will not sustain a growing crop long in hot dry weather. Corn leaves will curl up and turn gray under the influence of heat and drouth, and still revive when rain comes. Until it is actually dead, there is ground for hope, and where the ground has been kept in good condition, the corn will live a long time without rain.

It is probable that our corn crop will be cut short a little in some places, but there will be a very large corn crop raised in Kansas this year unless the season proves to be worse than any other known in the State's history. People are easily frightened and often hollow before they are hurt. Two weeks of dry weather is not a serious matter only when added to some other weeks of the same kind. Our weather prophets, some of them, predicted dry weather about this time, and Prof. Blake says it will be worse in August, and he says a good deal of corn must go; still, we do not yet believe there is going to be any excessive loss on that account.

Let us all take the weather as it comes, and vary our crops to suit all kinds of seasons. Even where corn fails, there is time yet to grow buckwheat, turnips and potatoes.

Later.—Since the foregoing was in type we have news of rains in different parts of Kansas. In Bourbon county an hour's hard rain fell. Local rains reported in Dickinson county, "glorious rain" at Abilene Sunday night. Edwards county had an "abundant rainfall" Monday morning. The Santa Fe Railroad company had reports, Monday, from Newton, Wichita, Wellington, and as far west as Dodge City, to the effect that "quite a heavy rain" had fallen at those points Monday morning. The corn will not be a full crop, probably, but the situation is still hopeful.

July 17th was the hottest day of the season in northern Texas. Reports from many different points sent to Fort Worth on that day represent the thermometers as registering 100 to 110 deg. in the shade.

Corn is not suitable food for young pigs. Oats, rye and wheat are better. Milk and grass are the best, but when there is no grass, rye and oats chopped and mixed with milk or water and fed warm are very good.

Very dry weather is reported in the Northwestern States, and forest fires have broken out in Wisconsin. A prominent lumberman says that at least 1,000,000,000 feet of pine have been destroyed already in the Menominee region, and that the timber loss by fire is the greatest for years.

Attorney General Bradford, in answer to a question submitted by Governor Martin, concluded an opinion last week as follows: "I am therefore of the opinion that there being no other objections a woman is eligible to be appointed to the office of Justice of the Peace under our constitution and laws and the decisions of our Supreme court."

There are symptoms of another revolution brewing in Mexico. A good many stockmen have sent their herds over into Texas so as to have them out of the way in case of war at home. It would be unfortunate if war should break out there now, for Mexico has entered upon a career of prosperity unequalled in her history and on a higher plane of civilization. General Grant quietly (as he did everything) started a peaceful revolution in that country, and it is now bearing fruit. It is to be hoped that the attempted insurrection will be promptly quelled.

There is a strong movement in the Fifth Congressional district to repudiate the nomination of Judge Wilson for Congress. A mass convention is to be held soon at Clay Center to consider the matter. It is not a good thing at this time to turn a man like John A. Anderson out of Congress. He knows more about the railroad question than any new man can learn in four years, and then his knowledge is used on the side of the people. Cannot the farmers take hold of the matter, as was done in the Second district, and put up a man that they want?

The annual meeting of the American Horticultural Society, for 1888, will convene in the city of Cleveland, Ohio, September 7th next, and continue three or four days. This will be one of the most important meetings of its kind ever held in this country, and should be attended by all lovers of the "art which does mend nature." A full programme of the meeting will soon be published, which will embrace the leading names, known to horticultural fame, in this country, and some from abroad. Particular information given on application to W. H. Ragan, Secretary, Greencastle, Ind.

Dr. Holcombe, State Veterinarian, returned from Matfield Green and Council Grove, where he was called to investigate outbreaks of disease among cattle. He reports the trouble to be Texas fever, which originated from the bringing in of about 300 head of cattle from Caddo, I. T. These cattle arrived at Council Grove May 1st, and a few days later were driven to the southern part of Chase county, where they are now held in quarantine by order of the Sanitary Commission. About 350 head of cattle have been exposed to the disease, nearly all of which are the town cattle belonging at Council Grove and Matfield Green. Over twenty head have already died.

Cattle Fevers.

The time of year is at hand for cattle that are not very well kept to begin to sicken and die with what most farmers in Kansas call Texas fever, black leg, murrain, and other names for similar diseases. As to what is Texas fever, and what is black leg or murrain, we need not now stop to discuss or to write down opinions about. The thing needed is to prevent any and all those diseases if we can. If a man were compelled to eat musty bread and drink from a mud-hole when the weather is dry and warm, and if he continued that kind of dieting a few days, he would have a fever. So, if cattle, in hot dry weather, drink foul water and eat dry, dusty grass, they will have a fever. It matters not what we call the particular kind of fever, it is always bad enough, and very often kills the affected animal.

Cattle, during the hot and dry weather of July and August, and often even in September, become stupid, they stand with their feet separated wider than usual, their ears droop and their whole appearance is one of languor and stupor. They soon go down and die. Examination shows internal discolorations, and especially just under the skin where bones are near the outer surface. The lungs are more or less affected, the liver swollen and the disease is set down as Texas fever or black leg, and the cause is said to be contagion. In most cases the judgment is incorrect. In nine cases of every ten, except where Texas cattle have been recently, the disease is not Texas fever at all, though the symptoms are so much like those of animals affected by communication from Texas cattle as to be indistinguishable. Whatever may be the original cause of Texas fever, it is evident that where cattle have fever in localities not visited that season or in many seasons by Texas or other Southern cattle, the disease cannot be said to have come from contagion or from infection by contact. Even though the symptoms be those which characterize Texas or Spanish fever, still the cause is not the close proximity of Southern cattle. And that is the point we desire to impress particularly, because, if farmers can be made to understand that their sick cattle are sick from causes at hand and plainly discernible, they may be induced to change their manner of handling stock.

It is a common sense statement that in order to have and maintain health in animal or human life, the food eaten and the liquids drunk must be wholesome and nutritious. Muddy water and water green with decaying vegetation and foul with mixtures of animal excrements, full of living things, cannot be wholesome or nutritious, and yet a great many cattle have nothing else to drink. Dry and sanded grass alone will not produce disease necessarily, for when cattle have all the pure clean water they want they do not suffer from eating grass that is no worse than merely dry and dusty. But when added to such feed we have the disease-breeding water above described, disease must come sooner or later if there is not a change.

If a farmer cannot get good water for his stock under ordinary conditions, he ought to devote his attention to something else. No person can afford to do a losing business. But we do not believe that many farmers in Kansas are compelled to do without good water because it cannot be had in their vicinity. It may be that in some places it is difficult to obtain well water in sufficient quantities for much stock. But where wells cannot be had of sufficient capacity, if a farmer has energy enough to raise stock he can easily make water

ponds that will serve a good purpose in trying times. A little labor well directed will suffice to arrange a pond so as to preserve it reasonably free from impurities. Trees, like willow, maple and cottonwood, planted along the edge will aid very much in keeping the water pure, and some rock imbedded at a proper place will prevent the tramping and mixing of earth and water by stock. By still other and better work the pond can be arranged so that no animal need ever go into any part of it to drink.

We hope our readers will give this subject attention. Already cattle are sick and some dying with fever in parts of the State where there have not been any Southern cattle for years, and without knowing the conditions, we submit that the water and feed they are getting and the general treatment they have are the prime causes of the fevers.

Patents to Kansas People.

The following is a list of patents granted Kansas people for the week ending July 17th, 1888; prepared from the official records of the Patent office by Mr. J. C. Higdon, solicitor of patents, Diamond building, Kansas City, Mo.:

Sulky harrow—Geo. H. Robb, of Severance.
Draft equalizer—A. B. Griswold, of Bunker Hill.
Car coupling—Wm. B. Foster, of Derby.
Shutter fastener—Charles V. White, of Leavenworth.
Hop drier—Wm. S. Plummer, of Leavenworth.
Automatic railway switch—Manoah Miles, of Russell.
The following were reported for last week:
Refrigerator and water-cooler—Jas. R. Pershall, of Lawrence.
Vehicle spring—Wesley Cole, of Lawrence.
Windmill gearing—Fred J. Wagner, of Kirwin.
Box-fastener—John A. Strong, of Cain.
Lamp bracket—Jas. W. Barney, of Junction City.
Door lock—Peter Cool, of Manhattan.
Artificial fuel—Frank S. Dimon, of Fort Scott.
Wagon tongue support—Monroe E. Johnson, of Pittsburg.
Reversible cleaner for lamp chimneys—John H. Nolan, of Pleasanton.
Weather strip—Wm. H. Randle, of Glasco.
Electric chain battery—Robt. N. Rockwell, of Peabody.

Inquiries Answered.

GRASS.—T. J. H. sent in samples of grass and inquired about its name and properties. The sample was forwarded to Prof. E. A. Popenoe, of the State Agricultural College, for examination and report. This is his answer:

"The large clover found in his tame grass meadow by your correspondent at Council Grove is the 'buffalo clover,' *Trifolium reflexum*, which ranges from western New York westward, at least to eastern Kansas. It is nowhere so abundant, to my knowledge, as to become agriculturally important, and its foliage and stems would furnish at best but coarse grazing or hay. It does not spread, ordinarily, though I have found a large number of plants together on a few square rods of meadow. It does not flourish in pasture, so far as I have seen."

The Atchison *Champion* says the re-nomination of "Farmer" Funston was not a surprise. He had just enough and the right kind of opposition to turn a good chance into a certainty. Mr. Funston's friends can hand him a beautifully engraved certificate of life membership in the House of Representatives if they can only secure the same kind of opposition in all future campaigns. Outside of the advantage of having the most helpful lot of enemies any man ever had, Mr. Funston has what might be called intrinsic advantage. He is a sure enough farmer, not a farmer for politics only; he is a strong man physically, and he is not so outrageously smart as to refuse to learn anything, hence he studies hard, reads and keeps the run of affairs at Washington, and so grows stronger all the time mentally.

Small and Large Herds.

There is no question about the truth of the proposition that small herds are more profitable, proportionally, than are large ones. The same is true of small farms as compared with large ones, and the philosophy of the reason is the same in both cases. Where a family has but one cow or one acre of ground, the cow or the lot will receive extra attention, whereas if there are one hundred cows in the herd or a thousand acres in the farm, there will be more extravagance, more carelessness, more waste, more loss. And it matters not what the herd is used for, whether for breeding, for beef or for milk. The smaller the herd the better care it receives, and good handling always produces proportionally good results.

Still, while this is true, if we turn the case up and look at it, we find that a large number of cattle may be kept on a certain number of acres easier and cheaper to the cow than a small number of animals on a proportionally smaller number of acres. To illustrate: One hundred cows may be kept on one hundred acres of land cheaper per cow than one cow may be kept on one acre of land. The losses occasioned by carelessness, extravagance and waste in cases of large herds usually are the very things which, if turned the other way and made to count for their full worth, would turn the scale in favor of the cheaper keeping of the large herd.

The care of animals lessens in expense proportionally with the increase of numbers, because one person can take care of ten animals about as easily and in nearly the same time as he can take care of five. Every additional animal lessens the individual expense. And then, where large numbers are to be handled, machinery can be used and made to do the work of men, and economies may be practiced that would be overlooked in case of but one animal.

But, as to most of our readers, the small herd idea is the better one. A good wife with two cows will do more for her family in the way of supplying milk, butter and many other good things than another equally good wife would with ten or twenty cows, in proportion to numbers, and because the two would be better taken care of, and there would be a studied and continuous effort to make them as productive as possible.

The Kansas Central Agricultural Society will hold its eleventh annual Fair at Junction City, Tuesday, Wednesday and Thursday, September 21st, 22d and 23d. The premium list is out showing commendable enterprise in the way of inducements to exhibitors, and it is an interesting little book from a mechanical point of view. The day and hour of awarding premiums is also given under each heading, and all the premiums are consecutively numbered through the book, thus greatly facilitating reference. The feature of special premiums heretofore so successful at the fairs of this Association receives more than usual attention. The fifth meeting of the Golden Belt Trotting Circuit, with its \$10,000 aggregate of purses, will be held in connection with this fair. Other attractions of state, or wider importance connected therewith are: (1) A band tournament, September 21st; (2) a shooting tournament, September 23d; (3) the meeting of Kansas wheelmen, September 22d and 23d, for races and the formation of a State division of the League of American Wheelmen; (4) the competitive drills and sham battle of the Kansas National Guards, September 24th. A copy of this list can be secured by addressing Chas. S. Davis, Secretary, Junction City, Kansas.

There is one officer to every five men in the United States navy.

Horticulture.

EMBELLISHMENT OF FARM HOMES.

A paper prepared by John Davis, Esq., of Junction City, for the sixteenth semi-annual meeting of the Kansas State Horticultural Society, which met at Wichita, Kas., June 29-30, 1886.

The first, last and bottom purpose in all homes should be to promote the health, comfort and cheerfulness of the family. The most perfect, pleasing and lovely embellishments in and about farm homes and all homes, are the rosy cheeks, cheerful dispositions, and the sweet, musical voices of the inmates. That is, good family health is the first and best requisite among home embellishments.

Among the necessary means to these essential and closely-blended results, it may be said, first, that the location of a farm home should be dry. It should be susceptible of prompt and perfect drainage. Hence, if possible, elevated grounds should be chosen for the family dwelling. Better a little steep than too flat. Where the ground is a dead level a few open furrows may be made with plow and scraper, and earth mounded up about the house, in order to persuade the water to retire. Where there is a basement or cellar, the earth from the excavation may be utilized for the same purpose.

The location chosen and the drainage secured and perfected, then the house must be constructed weather-tight. There should be plenty of doors and windows to let in air and sunshine when needed; but doors, windows, walls, roof and floor should be absolutely wind, water and weather-proof, for perfect protection when required. The roof must not leak, the walls must keep out wet and cold; and equally important, or more important, is a good floor! With an open floor the family feet are cold in winter, and the family nostrils are offended in hot weather! Both influences are bad for health, comfort and cheerfulness.

Next to good drainage and protection from the weather, comes pure water and air. If rain water is used it must be filtered and the cistern must be deep enough to preserve the water cool and pure. If well water, it must come from a clean well, stirred and used daily, and protected from outside impurities; especially from the stealthy, unobserved and poisonous drainage from filthy yards, pools and privies.

To secure good air shun the miasma of swamps and stagnant water. If near such localities, build south of them rather than north, so that it will be a cold wind rather than a warm or hot one, that blows from the swamp toward the dwelling.

After good drainage, a good house, pure water and pure air have been thought of, we must then look out for the wind and the sunshine. In an open, bleak, prairie, sunny climate, it is important that the force of the winds and the heat of the sun be broken; not shut out entirely, but *tempered*. To do this use trees. In the use of trees we combine utility and beauty. The strongest and most objectionable winds in Kansas come from the north and northwest in winter, and from the south and southwest in summer, hence the dwelling house, if practicable, should front the east. For winter protection there should be trees on the north, northwest and west, that hold their leaves in winter. They should be set thickly to break the force of the winds, but not too close to the house, to cause aerial stagnation in summer.

On the south and southwest trees should be set that shed their leaves in autumn, so as to invite all the sunshine

possible in winter. On the east and southeast trees must be used very sparingly. Low shrubbery and flowering plants, with here and there a good shade tree, is best. Every dwelling should receive the sunshine freely in the morning, and if the locality is inclined to be damp, moldy and chilly, the sunshine should be admitted pretty freely all day. Much ill health is caused, even in sunny Kansas, by too much shade close about the dwelling. Men set trees thickly, and when they are small it is all right. When the trees get large few men have the courage to thin them sufficiently. These facts and features are intensified in moist, miasmatic regions, and become of very great importance. In the miasmatic regions of some of the older States observant men can point out, with considerable certainty, the homes, in city and country, that contain invalids. They uniformly consider heavy masses of shade to the east and south of a dwelling as deleterious to health. Dio Lewis has emphasized the importance of sunshine to health with great earnestness. He records numerous cases where chronic invalids were utterly incurable until the great oaks and elms that brooded over the dwellings and door yards with their thick, impenetrable shades were removed. Every part of the roof of the dwelling, and every foot of turf in the door yard, should receive the direct rays of the sun a portion of every day, if practicable; and as much as possible in the forenoon.

As to varieties of trees, the red cedar and Austrian pine, being exceedingly hardy in Kansas, should be used plentifully on the cold sides of a dwelling, and very sparingly on the east and south. Other trees and shrubs can be mixed in to suit individual tastes for winter and summer effect. Among deciduous trees, soft maple, elm, ash, black walnut, box elder, mulberry, coffee nut, wild cherry, honey locust and cottonwood are used to good advantage. The taller trees should be placed in the background, on the north and west, the low-growers scattered thinly on the east and south.

For shrubs and flowers, each person's local observations are the best guide, but the trees, in numberless hardy varieties, are very useful as beautifiers of farm homes.

Then come the fruit trees, vines and bushes, combining beauty and utility. Orchard trees may be so placed as to afford shade, shelter and ornament. The beautiful flowers of the cherry and apple in spring, and the ripe fruit in summer and autumn, are embellishments that add vastly to the beauty, comfort and value of a farm home. The fruit garden and vineyard, flanking the front lawn and flower garden, but not displacing them, are sources of health, profit and pleasure. Their beauty, when properly placed and tended, all will admit.

Connected with the desirable requisites for a comfortable and beautiful farm home, two points must not be forgotten; first, a fertile soil capable of growing trees and plants, or one that may be made so by reasonable culture and management. Second, a desirable view over the surrounding landscape. Both of these requisites are easily found on most Kansas farms. The first makes the growth of trees and plants practicable. The last agrees well with good drainage and pure air. This last requisite is very desirable and should be chosen even at some sacrifice of fertility of soil.

Farm embellishments have their difficulties and drawbacks in many ways. We meet with hot suns and cold winters; there are storms and droughts, insects, blights and mildews. These

are unavoidable, but with proper planning, care, attention and culture, may be mitigated and mostly overcome. Another enemy is the State. In most States men are *fined* by law for improving and embellishing their homes. A farm of 160 acres, occupied by a tenant cabin, a straw stable, a pig sty, and a cow corral in front, is taxed somewhat above the rate of raw prairie; yet, the price of the rude, simple crops may, in a measure, justify increased taxation.

Now let the same farm of 160 acres contain a \$2,000 dwelling and other buildings and improvements, neat and tidy, amounting to another \$2,000; with orchards, groves, wind-breaks and tasty embellishments, and the tax is trebled or quadrupled. This is *fining* a man for improving and beautifying his home.

Kansas is not worse than other States in this respect, if as bad. Yet, if one man lives in a cabin with straw sheds for animals, he has the same tax deduction on the assessor's books as his neighbor with good comfortable house and barn, and grounds nicely laid out, improved and embellished; though the highly-improved place is assessed much higher than the happy-go-lucky straw shed farm. Kansas, like other States, *finer her people by increased taxation* for the improvement of their homes!

It is said that a certain British Lord, Sir Wm. Scully, who owns a hundred thousand acres of Illinois soil and as much or more in Kansas, deliberately avoids neat and tasty improvements for his tenants in order to escape taxation. His lands in Illinois are notable for poor improvements and low taxation. It is also said that tenants in Ireland avoid improvements of property and tidiness of premises lest their rents may be raised.

Human nature is much the same in all States and on both sides of the Atlantic. Men should *not* be fined and taxed for farm improvements and home embellishments. Taxes should be levied on *land values only*! Then it would not be so common for men to hold raw lands for speculation; or for slipshod farmers to occupy large tracts of country with poor improvements and low taxes, while the highly improved and neatly kept and embellished homes are taxed to discouragement and bankruptcy because of their neatness and comfort! Let taxes be levied on land values only. Let it no longer be considered a crime, deserving fines, pains and penalties for men to cultivate the soil, or to improve and embellish their homes. Surely the austerities of nature, and the depredations of birds, beasts and insects are drawbacks enough. Society in the concrete should not attack the individual. Savagery and barbarism should not be favored with lighter taxes, while cultivation, comfort and beauty are loaded with pains and penalties. The first move now needed is to place the laws of the State on the side of home comforts and home embellishments! It is within the power of the State Legislature to relieve farm improvements from taxation, and to make up the deficiency by increased rates on naked lands. Such a policy would decrease the acreage of many half-improved farms, but it would vastly improve the style of farming, and the frequency, quantity and quality of home improvements and home embellishments. In my opinion such a policy is the next necessity for the encouragement of home embellishments.

HEADACHE POSITIVELY CURED.

Thousands of cases of sick and nervous headache are cured every year by the use of Turner's Treatment. Mrs. Gen. Augustus Wilson, of Parsons, Kas., who was appointed by the Governor and State of Kansas lady commissioner to the World's Fair at New Orleans, says: "Turner's Treatment completely cured me, and I think it has no equal for curing all symptoms arising from a disordered stomach or from nervous debility. For female complaints there is nothing like it."

To the Women!

Young or old, if you are suffering from general debility of the system, headache, backache, pain in one or both sides, general lassitude, bearing-down pains in the abdomen, flashes of heat, palpitation of the heart, smothering in the breast, fainting sensations, nervous debility, coughing, neuralgia, wakefulness, loss of power, memory and appetite or weakness of a private nature. We will guarantee to cure you with from one to three packages of the treatment. As a uterine tonic it has no equal.

Nervousness!

Whether caused from overwork of the brain or imprudence, is speedily cured by Turner's Treatment. In hundreds of cases one box has effected a complete cure. It is a special specific and sure cure for young and middle-aged men and women who are suffering from nervous debility or exhausted vitality, causing dimness of signs, aversion to society, want of ambition, etc. For

Dyspepsia!

Strengthening the nerves and restoring vital power this discovery has never been equalled. Ladies and gentlemen will find TURNER'S TREATMENT pleasant to take, sure and permanent in its action. Each package contains over one month's treatment. The Treatment, with some late discoveries and additions, has been used for over thirty years by Dr. Turner in St. Louis, in private and hospital practice.

Price Turner's Treatment, per package, \$1; three packages \$3, sent prepaid on receipt of price. Thousands of cases of diseases mentioned above have been cured with one package, and knowing as we do its wonderful curative effects, the Treatment having been used in private practice for over thirty years in St. Louis, we will give the following written guarantee: With each order for three boxes, accompanied by \$2, we will send our written guarantee to refund the money if the Treatment does not effect a cure. Send money by postal note or at our risk. Address E. L. Blake & Co., Sixth and Market Streets, St. Louis, Mo.

MILLIKEN'S GREENHOUSE, EMPORIA, KAS.
A general stock of fruit and vegetables at wholesale and retail. Flowering shrubs, shade and ornamental trees, Grape Vines, Small Fruits, etc.
Send for Price List.
ROBERTA MILLIKEN, Emporia Kas.

J. L. STRANAHAN, BROOMCORN Commission House.
194 Kinzie street, CHICAGO, ILL.

Sibley's Tested Seeds
Catalogue free on application. Send for it.
HIRAM SIBLEY & CO.
ROCHESTER, N. Y. AND CHICAGO, ILL.

Hart Pioneer Nurseries OF FORT SCOTT, KANSAS.

A full line of Nursery Stock, Ornamental Trees, Roses and Shrubbery. We have no substitution clause in our orders, and deliver everything as specified. 220 Acres in Nursery Stock.
Reference: Bank of Fort Scott. Catalogue Free on application.
Established 1857.

Catalpa Grove Nursery.

CATALPA SPECIOSA and RUSSIAN MULBERRY Trees—all sizes—one to three years old. Strawberry, Raspberry and Blackberry Plants. Fruit Trees, Grape Vines. Please state just what you want, and amount of each variety, and we will quote you special prices.
Address

D. O. BURSON & CO., Topeka Kas.

250 Acres. Established 1868.

LAMAR NURSERIES,

Headquarters for Fine Nursery Stock of any Description at Hard Time Prices.

Dealers and Nurserymen supplied at lowest wholesale rates. Parties wishing to buy large or small quantities will save money by getting our prices.

We have a surplus of Apples, Berries, Forest Trees, Osage Hedge, Russian Mulberries, Apple Seedlings, etc.

Address C. H. FINK & SON, LAMAR, MISSOURI.

NURSERY STOCK---FALL 1886.

THE OLD AND RELIABLE SYRACUSE NURSERIES. COME TO THE FRONT FOR THE FALL OF 1886
With the choicest Stock of their Specialties, STANDARD APPLES, STD. and DWARF PEARS, PLUMS and CHERRIES, etc. offered to the public at Young, Thrifty and Well Rooted. Also a very superior assortment of GENERAL NURSERY STOCK, both FRUIT and ORNAMENTAL, including all the popular ORNAMENTAL TREES, SHRUBS and ROSES. All Nurserymen and Dealers are cordially invited to inspect this superior stock or correspond with us, before placing their Orders for the coming Fall.
[When writing always mention this paper.] SMITHS, POWELL & LAMB, Syracuse, N. Y.

The Poultry Yard.

Profits in Poultry-Keeping.

Kansas Farmer:

January 1, 1886, my wife and I started with seventeen hens, and entered in our day-book their value at \$12.75—capital invested in the poultry business. We selected for our breed the prize-winning Plymouth Rocks. We have counted every egg and know every cent we have paid out for feed for this small flock since last January. We keep them in a park of ample size to give them range and exercise. The feed we have given them has been bought of our local dealers at retail prices, and we have not looked much on the side of economy in providing for them. We intend they shall have all and whatever they want to eat. The food we have furnished them has consisted of corn, wheat, oats and millet seed. We have also bought and paid for delivering one load of sand. We keep food in abundance in their yard all the while. They never find the box empty when they want anything to eat. They have pure water two times every day, morning and evening.

When the hatching season came on, eleven of them went to work. We saw that their nests were of the right kind and were put where the hens would not be disturbed. The result is our hens so far have hatched nearly 90 per cent. of the eggs set. Had it not been for a cold snap or two and an accident or two, they would show up about 100 per cent. During these six months we killed eight chickens; eleven young chickens have died from imperfect hatch and accident. The first of July, we figured up our account and found a balance of \$17.05 in our favor. In making our calculations we have figured the eggs and chickens at market price. Had we put them in at fancy prices, to which we are entitled (for we have the standard strain), we would show astonishing figures. Here is the account as we figured it, not taking advantage of high prices:

Cr.—To seventeen hens.....	\$12.75
To feed to July 1st.....	6.50
Total.....	\$19.25
Dr.—By fifty dozen eggs.....	\$ 7.50
By eleven settings, 144 chicks....	28.80
Total.....	\$36.30

Earnings, over cost.....\$17.05

The fifty dozen eggs we used on our own table. The \$17.05 represents the interest on our investment. We ask what other business will show a better interest on a small investment.

Besides this, our flock is growing while we are sleeping. A few months more and our spring chickens will begin to lay, and in this way more than pay their own way.

We have met with most satisfactory returns in our experiment in the poultry business. We believe the key of success in this business is proper management. If you manage right you can keep track of expenses and figure out a profit, every time.

You will hear from me further on.

JOHN A. BRANSON.

Clifton, Kas., July 10.

How to Raise Turkeys.

Kansas Farmer:

In regard to John A. Branson's letter in FARMER of July 7th, those are my sentiments, too. Let us have letters from Kansas farmers and their wives on Kansas farm topics. We are just beginners, and there are a great many things I would like to know, one of which is, how to raise turkeys. Will some one who knows tell? They seem very much harder to raise than chicks.

Mrs. C. P.

The Right Ring.

Kansas Farmer:

I read Mr. John A. Branson's article in last week's FARMER, entitled "Wake Up, Ye Sleepers," and I heartily endorse everything he says. I take several poultry journals, and many times I see articles in the FARMER which I have read in some poultry paper. This of course is all right with you, as your paper should contain a department of this kind, but the fault lies with the poultry-breeders of the State, in not contributing more liberally to this very important department in your paper.

I am but a novice in the business, and have nothing to impart that will be of any benefit to any one. This is the first season that I have undertaken to raise anything but the common, ordinary, every-day barnyard fowls, but my efforts have not been very successful. Early in the spring, I procured the eggs of three different varieties, namely: Plymouth Rock, Brown Leghorn and Langshan. With the Plymouth Rocks I had fair success, and now have a flock of nine as fine birds as I ever saw; but not so with the other two varieties; they hatched poorly, and those that did hatch were afterwards destroyed by some kind of a "varmint." I procured other eggs of the same varieties, and now have a few chicks, with a fair prospect of raising them. I lose a chicken occasionally with cholera, but by keeping a good supply of madder in the drinking pan this trouble is very greatly obviated. Besides the number of fine chicks the "varmint" destroyed, about fifty others were also destroyed before I could make way with the pest. A big dose of "Rough on Rats" did the work.

In case our county holds a fair this fall, I intend placing some of my select stock in the show ring. At that time I may tell the readers of the FARMER how I succeeded at the fair, and also what further success I had at raising poultry.

A. W. McDOWELL.

Columbus, Kas., July 12.

Is the Kansas Poultry Association Dead?

Kansas Farmer:

I am glad to see that Esq. Branson has started the ball rolling in the right direction, and I will give it another kick. I cannot account for the silence of the poultry-breeders of Kansas, when there could be no better medium for building up the poultry interest in this State than the KANSAS FARMER. There is probably not another State in the Union without a poultry paper, or at least a department in some of the leading poultry publications. Why this lack of energy? Every other business is being pushed forward and the people of this State are noted the world over for their energy and push. Every other State has from one to ten poultry shows, while we sleep.

The Kansas breeder, if he wishes to exhibit his birds must send them to "poor old Missouri," with her six or seven shows,—to Iowa, Nebraska, or away out to Colorado. But we can boast (?) that we have (or have had) a State Poultry Association. Where is it? What has it done? What is it doing? The probability is that it is too dead to answer.

I move you, sir, that the poultry editor be instructed to stir up this Association, and try and get life enough into it to either do something or formally disorganize, so that new life and energy becoming our young State may organize, and I can assure you there will be something done. There will be a poultry show somewhere in the State next winter if there is but one exhibitor.

T. S. HAWLEY.

Topeka, Kas.

Good tillage is the strongest weapon with which the farmer can fight hard times and

gain success. Imperfect culture, on the other hand, will scarcely enable him to gain a livelihood from the richest soil, and the soil will deteriorate rapidly in quality from such treatment besides.

Alsike clover is beautiful, with its scarlet blossoms, but not equal to the red as a forage plant. It is between the red and the white in its yield and in the size of the blossoms. 'Tis said that honey bees ever sip the honey in its cups. The seed ripens from the first blossoms.

FAST TIME

From Kansas City to New York Via the Wabash Route.

The following telegram explains:

St. Louis, May 20, 1886.

H. N. Garland, Western Passenger Agent, Wabash Route, Kansas City, Mo.:

Under new arrangement taking effect Sunday, May 30, the Wabash New York Limited train will leave Kansas City at 7 a. m., St. Louis 6:30 p. m., Toledo at 7:50 a. m., Buffalo at 5:10 p. m., arriving at Grand Central Depot, New York City, 7:30 a. m., second morning from Kansas City. This shortens the time between Kansas City and New York four hours. The finest through car service in the world is on this train.

F. CHANDLER, G. P. & T. A.

Wabash Ticket Offices, 531 Main street, 1040 Union avenue and Union Depot.



TOPEKA
Medical and
Surgical
INSTITUTE

This institution was Established Fourteen Years Ago, and is incorporated under the State laws of Kansas. During that time it has done a flourishing business and made many remarkable cures. The Institute is provided with the very best facilities for treating every kind of physical deformity, such as Hip-Joint Disease, Club Foot, Wry Neck and Spinal Curvature, having a skilled workman who makes every appliance required in arthropodic surgery. Incipient Cancer cured, and all kinds of tumors removed. Diseases of the Blood and Nervous System successfully treated. Nose, Throat and Lung Diseases, if curable, yield readily to specific treatment as here employed. All forms of Female Weakness relieved. Tape Worm removed in from one to four hours. All Chronic and Surgical Diseases scientifically and successfully treated.

PATIENTS TREATED AT HOME.

Correspondence solicited. Consultation free. Send for circular and private list of questions.

DRS. MULVANE, MUNK & MULVANE,
No. 86 East Sixth street, TOPEKA, KAS.

RUPTURE

RELIEVED AND CURED

Without any operation or detention from business, by my treatment, or money refunded. Send stamp for Circular, and if not as represented will pay railroad fare and hotel expenses both ways to parties coming here for treatment.

DR. D. L. SNEDIKER,
Emporia, Kas.

GLAD TIDINGS FOR MOTHERS, who would escape the pains and dangers of child birth. Sent free. Also, "Diseases of men," for men only. Address
DR. STAINBACK WILSON, Atlanta, Ga.

Lonergan's Specific

Cures Nervous Debility, Male and Female Weakness, and Decay. 1 rice, \$1 per package; 3 packages \$2.
Address A. C. Lonergan, M. D., Louisiana, Mo.

THREE ILLS

Grab Orchard Water

DYSPEPSIA,
SICK HEADACHE,
CONSTIPATION.

A Remedy for all Diseases of the Liver, Kidneys, Stomach and Bowels. A positive cure for Dyspepsia, Sick Headache, Constipation. Dose, one to two teaspoonfuls. Genuine Crab Orchard Salts in sealed packages at 10 and 25 cts. No genuine salts sold in bulk. CRAB ORCHARD WATER CO., Prop'rs. SIMON N. JONES, Manager, Louisville, Ky.

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PUREST & BEST MUSICAL TONE. GREAT-EST EXCELLENCE AND DURABILITY. THE MASON & HAMLIN COMPANY PLEDGE THEMSELVES THAT EVERY PIANO OF THEIR MAKE SHALL ILLUSTRATE THAT VERY HIGHEST EXCELLENCE WHICH HAS ALWAYS CHARACTERIZED THEIR ORGANS. CATALOGUE WITH FULL DESCRIPTION FREE.

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DR. JOHN BULL'S Smith's Tonic Syrup

FOR THE CURE OF

FEVER and AGUE

Or CHILLS and FEVER,

AND ALL MALARIAL DISEASES.

The proprietor of this celebrated medicine justly claims for it a superiority over all remedies ever offered to the public for the SAFE, CERTAIN, SPEEDY and PERMANENT cure of Ague and Fever, or Chills and Fever, whether of short or long standing. He refers to the entire Western and Southern country to bear him testimony to the truth of the assertion that in no case whatever will it fail to cure if the directions are strictly followed and carried out. In a great many cases a single dose has been sufficient for a cure, and whole families have been cured by a single bottle, with a perfect restoration of the general health. It is, however, prudent, and in every case more certain to cure, if its use is continued in smaller doses for a week or two after the disease has been checked, more especially in difficult and long-standing cases. Usually this medicine will not require any aid to keep the bowels in good order. Should the patient, however, require a cathartic medicine, after having taken three or four doses of the Tonic, a single dose of KENT'S VEGETABLE FAMILY PILLS will be sufficient. Use no other.

DR. JOHN BULL'S
SMITH'S TONIC SYRUP,
BULL'S SARSAPARILLA,
BULL'S WORM DESTROYER,
The Popular Remedies of the Day.

Principal Office, 831 Main St., LOUISVILLE, KY.



A copy of this Superb Work of Art will be mailed to any address on receipt of ten cents.

VIRGINIA FARMS Mild Climate. Cheap homes. Northern Colony. Send for circular. A. O. BLISS, Centralia, Va.

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

Philadelphia Wool Market.

We quote from the wool circular of W. C. Houston, Jr., & Co., of date July 15th:

"Since our last issue, July 3d, the wool market has ruled very strong, and prices show a further advance. In the West the market has been active and excited, but in the East the amount of business has been curtailed by the comparatively small stock offered for sale. Moreover, many manufacturers are reluctant to pay an advance on wool, which they claim is not warranted by the demand for or prices of their goods. It is very natural for manufacturers to be bears on wool, but at the same time any advance on the manufactured article nearly always starts with the raw material. Besides, the value of wool is a question of supply and demand, and is not altogether dependent on the state of the goods market. There have been occasions when the supply of wool has been temporarily large, and prices have been depressed by the weight of stocks and the pressure to sell, although there has been no corresponding decline in the manufactured article; on the same principle, if wool is scarce and firmly held, it is possible to have an advance in the raw material without an accompanying improvement in goods if manufacturers continue to run their mills.

"The clip of the country has been steadily decreasing since 1883. In 1884 the shortage was not felt on account of the depression in general business in consequence of the panic and tight money market in the summer. In 1885 the shortage was greater, but again was not felt on account of the heavy importations of foreign yarn, goods and wool. This year the clip is shorter than last. In Texas the shortage is placed at 15 per cent.; in the more eastern States—Ohio, Michigan, Indiana, Kentucky, Illinois, Wisconsin, Missouri, Iowa, Kansas and Nebraska, many estimate the shortage at 20 to 25 per cent. Indeed, there is an opinion that there is a falling off in the clip of the world on account of the low prices of wool and the consequent slaughter of sheep. As long as we were subject to large importations of yarn, goods and wool, the deficiency in our clip was not appreciated as it was made up from abroad, but now our shortage is likely to be felt, as the importing point has been raised by the advance abroad, where prices are not only strong but improving, and every advance abroad makes room for further improvement in this country. Moreover, the advance on the other side has been caused and sustained by home manufacturers, so that it is quite probable that any considerable demand from this country would create increased competition and result in still higher prices.

"Another strong feature in the situation is the fact that Western mills have been free buyers, and instead of selling their wools early and buying them back later on at an advance, as they did last year, they will profit by their experience and hold their purchases for their own use. Eastern operators heretofore have not properly considered the consumptive capacity of the Western mills.

"Our manufacturers generally are not heavily stocked; our clip is short and the deficiency likely to be felt on account of the raising of the importing point; the wool of the country in strong hands, and late purchases made on the basis of a further advance, and likely to be firmly held for some time for higher prices than now rule. Altogether the situation is a very strong one, and everything points to a further improvement. The only limit to the advance here is the point at which foreign goods and wool can be brought to compete with our production, and any considerable demand from this side is likely to increase values abroad and so raise the importing point.

"Of course the advance cannot continue indefinitely, but we doubt if we have seen the end yet.

KANSAS, NEBRASKA AND SIMILAR WOOLS.

	Light and bright.	Dark, heavy and brassy.
Fine.....	22a23	17a20
Medium.....	23a25	21a22
Quarter-blood.....	22a23	20a21
Common cots and burry.....	18a20	17a18

St. Louis Wool Market.

Our correspondents, Messrs. Hagey & Wilhelm, write us under date July 16th:

"Our wool market continues firm at an advance of one cent per pound on all grades

since our last report, and our sales are quick at the following:

Fancy 3/4 and 1/2-blood.....	27
Choice medium.....	26
Fair medium.....	25
Low medium.....	23
Light fine.....	22
Heavy fine.....	20
Carpet.....	17
Common.....	17
Bux and pulled.....	16

Kansas Fairs for 1886.

Kansas Fair Association, Topeka, September 28 to October 1.
 Western National Fair Association, (Bismarck), Lawrence, September 6-11.
 Anderson County Fair Association, Garnett, August 24-27.
 Bourbon County Fair Association, Fort Scott, October 6-8.
 Brown County Exposition Association, Hiawatha, September 14-17.
 Chase County Agricultural Society, Cottonwood Falls, September 29 to October 1.
 Cherokee County Agricultural and Stock Association, Columbus, September 7-10.
 Coffey County Fair Association, Burlington, September 13-17.
 Cowley County Fair and Driving Park Association, Winfield, August 30 to September 3.
 Crawford County Agricultural Society, Girard, September 28 to October 1.
 Kansas Central Agricultural Society, Junction City, September 21-23.
 Decatur County Exposition Society, Oberlin, October 12-14.
 Dickinson County Agricultural and Industrial Association, Abilene, August 31 to September 3.
 Elk County Agricultural Association, Howard, September 9-11.
 Western Kansas Agricultural Fair Association, Hays City, October 5-8.
 Franklin County Agricultural Society, Ottawa, September 27 to October 1.
 Harvey County Agricultural Society, Newton, September 28 to October 1.
 Jefferson County Agricultural and Mechanical Association, Oskaloosa, September 23-30.
 Johnson County Co-operative Fair Association, Edgerton, September 20-23.
 Pleasanton Fair Association, Pleasanton, September 14-17.
 LaCygne District Fair Association, LaCygne, September 7-10.
 Emporia Fair and Driving Association, Emporia, July 5 and 7 and September 20-25.
 Marion County Agricultural Society, Peabody, September 14-17.
 Mystic Driving Club, horse fair, Marion, September 29 to October 1.
 McPherson County Fair Association, McPherson, September 14-17.
 Marshall County Fair Association, Marysville, September 21-24.
 Miami County Agricultural and Mechanical Association, Paola, September 21-24.
 Morris County Exposition Company, Council Grove, September 7-10.
 Nemaha Fair Association, Seneca, September 14-17.
 Norton County Agricultural Association, Norton, September 28 to October 1.
 Phillips County Agricultural and Mechanical Association, Phillipsburg, September 21-24.
 Kaw Valley Fair Association, St. Marys, September 29 to October 1.
 Rice County Fair Association, Lyons, October 5-8.
 The Blue and Kansas Valley Agricultural Society, Manhattan, August 31 to September 3.
 Saline County Agricultural, Horticultural and Mechanical Association, Salina, September 7-10.
 Arkansas Valley Agricultural Society, Wichita, September 20-24.
 Smith County Agricultural Society, Smith Center, September 15-17.
 Sumner County Agricultural and Mechanical Association, Wellington, September 7-11.
 Washington County Exposition Association, Washington, September 21-24.
 Washington County Live Stock, Agricultural and Mechanical Association, Greenleaf, September 23-30.
 Kansas City (Mo.) Fat Stock Show, Kansas City, October 25-30.

THE MARKETS.

By Telegraph, July 19, 1886.

LIVE STOCK MARKETS.

New York.

BEEVES—Receipts 210 carloads, including 42 carloads for exportation and 38 for city trade. Common to prime native steers 4 50a5 60, extra and fancy native steers 5 70a5 80, Texas steers 4 00a4 70, fat bulls and dry cows 3 00a4 25.

SHEEP—Receipts 28,500. Sheep sold at 3 25a 5 25 per 100 lbs., lambs at 4 25a6 50.
 HOGS—Receipts 10,485. Market firm at 5 80a 5 85.

St. Louis.

CATTLE—Receipts 2,700, shipments 1,900. Native shippers active at 3 85a4 85, butchers steers steady at 2 50a4 00, cows and heifers slow at 2 25a 3 00.

HOGS—Receipts 5,000, shipments 2,000. Butchers and choice heavy active at 4 85a5 00, Yorkers firm at 4 65a4 70, mixed 4 70a4 85.

SHEEP—Receipts 1,100, shipments 900. Market quiet at 2 00a3 75.

Chicago.

The Drovers' Journal reports:
 CATTLE—Receipts 5,800, shipments 1,000. Market generally steady. Shipping steers 3 55a5 00,

stockers and feeders 2 30a2 40; cows, bulls and mixed, 1 75a3 75; bulk 2 40a3 00; through Texas cattle active, best grades firm, with cows at 2 15a 2 60, steers 3 00a3 90.

HOGS—Receipts 23,000, shipments 4,000. Market strong for choice stock. Rough and mixed, 4 45a 5 00, packing and shipping 4 90a5 17, light 4 45a 5 00, skips 2 75a4 35.

SHEEP—Receipts 1,400, shipments 500. Market strong. Natives 2 25a4 00, bulk 3 00a3 50, Western 3 00a3 60, Texans 1 75a3 00.

A special cablegram to the Drovers' Journal from London quotes excessive supplies of cattle and lower prices. American beeves, 11a12c per lb. estimated dead weight.

Kansas City.

CATTLE—Receipts since Saturday 1,449. The market to-day was steady and moderately active at about Saturday's prices. Sales ranged 3 40 to 3 95 for good steers.

HOGS—Receipts since Saturday 4,255. The market to-day was strong and active at an advance of 5a10c over Saturday's prices. Extreme range of sales 4 20a4 85, bulk at 4 65a4 75.

SHEEP—Receipts since Saturday 612. Market steady. Sales: 136 natives av. 80 lbs. at 2 15, 141 Westerns av. 77 lbs. at 2 25.

PRODUCE MARKETS.

New York.

WHEAT—Ungraded red, 80a88 3/4c; No. 2 red, 87 3/4c elevator.

CORN—Ungraded, 44a49c; No. 2, 47 3/4c.

St. Louis.

WHEAT—Dull and unsettled. No. 2 red, cash, 77 3/4c; July, 77 3/4c.

CORN—Very weak and lower. Reports of rain in Nebraska, Iowa and Kansas broke off prices early in the day 2 1/2a2 3/4c. No. 2 mixed, cash, 35 3/4c bid.

OATS—Very dull. No. 2 mixed cash, 27 1/2a28 3/4c.

RYE—Easier at 53c.

BARLEY—No market.

Chicago.

WHEAT—The first surprise was a drop from Saturday's closing of 1 1/2c, all coming from reported rains in Kansas, where it is generally conceded the effects of drouth have been disastrous and far-reaching. July, 77 3/4a79 3/4c; August, 78 3/4c.

CORN—July, 38a39c; August, 38a40c.

OATS—July, 29 3/4a29 3/4c.

RYE—No. 2, 53c.

BARLEY—65c.

FLAX SEED—No. 1, on track, 1 15a1 15 1/2c.

Kansas City.

WHEAT—The market to-day on 'change was entirely nominal, there having been no sales of any of the different grades, either for cash or future delivery.

CORN—Reports of rain in Kansas yesterday

and this morning had the effect of causing a weaker market with lower values on 'change, and some activity. No. 2 cash sold at 81 3/4a82 3/4c against 83c Saturday.

OATS—No. 2 cash, no bids nor offerings; July, 27c bid, 27 3/4c asked.

RYE—No. 2 cash, no bids nor offerings.

HAY—Receipts 14 cars. Market steady. Fancy, small baled, 6 50a7 00; large baled, 5 50a6 00.

OIL-CAKE—100 lbs., sacked, 1 25; 1 ton, 23 00, free on board cars. Car lots, 22 00 per ton.

BUTTER—Moderate receipts and demand good for strictly fresh. We quote: Creamery, fancy, 15c; good, 10a12c; fine dairy in single package lots, 12c; storepacked do., 6a7c; common, 4c.

EGGS—Receipts sufficient for the demand and market dull at 7c per dozen for candled. Sales cannot be made without candling.

CHEESE—Full cream 9 1/2c, part skim flats 7a8c, Young America 10c, Kansas 5a7c.

BROOM CORN—We quote: Hurl, 10c; self working, 6a7c; common red tipped, 5c; crooked, 3 1/2a4c.

FLAX SEED—We quote at 95c per bus. upon the basis of pure.

CASTOR BEANS—Quoted at 1 55a1 60 per bus.

PROVISIONS—Following quotations are for round lots. Job lots usually 1/2c higher. Sugar-cured meats (canned or plain): hams, 12c; breakfast bacon, 8 1/2c; dried beef, 10c. Dry salt meats: clear rib sides, 6 25; long clear sides, 6 15; shoulders, 6 00; short clear sides, 6 60. Smoked meats: clear rib sides, 6 90; long clear sides, 6 80; shoulders, 6 75; short clear sides, 7 25. Barrel meats: mess pork, 10 00; mess beef, extra, 8 50. Choice tierce lard, 6 25.

WOOL

A. J. CHILD,

209 Market Street, St. Louis, Mo.,

Pays particular and personal attention to wool shipments. Full information about the preparation of Wool for Market, Shipping, and St. Louis charges for handling and selling, furnished upon application.
 Correspondence solicited.

SEED WHEAT

And How to Grow It or Thirty Years in the Wheat Field.

Giving the origin, history, and description of the different varieties of wheat, the best and most popular modes of cultivation, with samples of five of the most hardy and productive kinds now grown in this country. All sent on receipt of 10c, in postage stamps or money.
 Address: SAMUEL WILSON, MECHANICVILLE, SUSSEX CO., PA.

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The Kansas Live Stock Insurance Company,

—OF—
 TOPEKA, KANSAS,

Insures Live Stock Against Death

BY DISEASE OR ACCIDENT.

Incorporated under and complied with all the laws of the State of Kansas, furnished bonds as required, and received certificate of authority from Insurance Commissioner to do business. [Stamp] Your Insurance solicited. Agents wanted. Mention KANSAS FARMER.

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MAKES A SPECIALTY OF INSURING FARM BUILDINGS AND STOCK

Against loss by Fire, Lightning, Tornadoes, Cyclones and Wind Storms.

Premium Notes in Force and Other Assets, \$125,000.

Your Insurance solicited. Correspondence invited. [Stamp] Agents Wanted. [Mention KANSAS FARMER.]

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Kansas Farmers' Fire Insurance Company,

—OF—
 ABILENE, : : : KANSAS,

Insures Farm Property, Live Stock and Detached Dwellings

Against Fire, Tornadoes, Cyclones and Wind Storms.

CAPITAL, FULL PAID, : : : : \$50,000.

The last report of the Insurance Department of this State shows the KANSAS FARMERS' FIRE INSURANCE COMPANY has more assets for every one hundred dollars at risk than any other company doing business in this State, viz.:

The Kansas Farmers' has \$1.00 to pay \$18.00 at risk; the Home of New York, \$1.00 to pay \$46.00; the Continental of New York, \$1.00 to pay \$80.00; the German of Freeport, Ill., \$1.00 to pay \$70.00; the Burlington of Iowa, \$1.00 to pay \$78.00, and the State of Iowa has \$1.00 to pay \$79.00 at risk.

The Busy Bee.

How to Get Bees into Sections.

Much trouble arises in forcing bees in the sections when working for comb honey, and oftentimes the colony will send out a swarm rather than go up into them. I myself have had a great amount of trouble from this cause, and until about one and a half year ago, did not know how to overcome it. Mr. J. B. Mason, a somewhat noted Maine bee-keeper, gave me the first information of value on this subject I ever obtained, and I have found by following his advice that no further trouble exists. When we find a colony that refuses to go up into the sections, we should go to some other colony where bees are working them, and remove five or six sections together with the bees, and place them on top of the hive containing the refractory bees, as honey is being gathered freely, the bees will be peaceable, those in the sections will continue their labor, and those in the hive below will at once come and assist them, the result being, if the operation is performed before the swarming fever is too far advanced, that the idea of swarming will be given up, and the bees will devote their energies to filling the sections with comb honey. Mr. Mason made this discovery some seven or eight years ago, did not think at the time it was anything unusual, and so did not give it to the public. He has found the method unfailing, and it has proved successful with me in every instance that I have had occasion to try it. The theory that I have formed in regard to it is this. Bees have a wax-making fever or impulse, as well as a swarming impulse. The strange bees given to the colony in the sections have the wax-making impulse, and at once communicate it to the bees in the hives below; we all know that bees, as a rule, do not send out a swarm while they have room for storing in the hive, and when the wax-making impulse is given them, and this overpowers for the present the swarming impulse with the most happy results to the bee-keeper who desires honey rather than swarms. Whether this theory is correct or not, the facts remain as stated, and Mr. Mason has discovered a principle of great value to those who are working for comb honey. I had made up my mind to work for extracted honey altogether in the future, but the above plan operates so nicely, that I shall continue my endeavors to get a supply of comb honey in sections.—*Kansas Bee-keeper.*

A correspondent of the *Country Gentleman* says that a cow which at home will test up to fourteen pounds of butter a week standard, if taken to a strange place, among strange cattle, and milked by a cross man, will not make half that quantity.

The cherry is about the only fruit tree which can be recommended for shade in pastures along roadsides, as the hardy varieties of cherries are not affected by the tramping of stock or passing of vehicles, which would prove injurious to most other fruit trees.

Hood's Sarsaparilla

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

100 Doses One Dollar

BULL'S SARSAPARILLA.

THE LIVER

Secretes the bile and acts like a filter to cleanse impurities of the blood. By irregularity in its action or suspensions of its functions, the bile poisons the blood, causing jaundice, sallow complexion, weak eyes, bilious diarrhoea, a languid, weary feeling, and many other distressing symptoms generally termed liver troubles. These are relieved at once by the use of BULL'S SARSAPARILLA the great blood resolvent.

DR. JOHN BULL.—I have been for a number of years severely afflicted with a mercurial headache and a dull, heavy pain in my liver. Three bottles of BULL'S SARSAPARILLA gave me more relief than all the others combined.

T. H. OWENS, Louisville, Ky.

DR. JOHN BULL.—I have examined the prescription for the preparation of DR. JOHN BULL'S SARSAPARILLA, and believe the combination to be an excellent one, and well calculated to produce an alterative impression on the system. I have used it both in public and private practice, and think it the best article of Sarsaparilla in use.

M. PYLE, M. D., Louisville, Ky.
Res. Phys. at Lou. Marine Hosp.

KIDNEYS

Are the great secretory organs of the body. Into and through the Kidneys flow the waste fluids containing poisonous matter taken from the system. If the Kidneys do not act properly this matter is retained and poisons the blood, causing headache, weakness, pain in the small of back and loins, flushes of heat, chills, with disordered stomach and bowels. BULL'S SARSAPARILLA acts as a diuretic on the Kidneys and bowels, and directly on the blood as well, causing the great organs of the body to resume their natural functions, and health is at once restored.

DR. JOHN BULL.—I have used BULL'S SARSAPARILLA for rheumatism and kidney trouble, and my son has taken it for asthma and general debility. It has given us both great relief.

Yours truly,

THOS. H. BENTLEY, Rossville, Ill.

BULL'S SARSAPARILLA.
BULL'S WORM DESTROYER.
BULL'S SMITH'S TONIC SYRUP.
THE POPULAR REMEDIES OF THE DAY.

THE BLOOD

IS THE LIFE.

DYSPEPSIA

Variable appetite; faint, gnawing feeling at pit of the stomach, heartburn, wind in the stomach, bad breath, bad taste in the mouth, low spirits, general prostration. There is no form of disease more prevalent than Dyspepsia, and it can in all cases be traced to an enfeebled or poisoned condition of the blood. BULL'S SARSAPARILLA by cleansing and purifying the blood, tones up the digestive organs, and relief is obtained at once.

DR. JOHN BULL.—I have no hesitation in saying that I believe your SARSAPARILLA to be the best medicine manufactured for the cure of Scrofula, Syphilis, and many other cutaneous and glandular affections, having used it with entire success in numbers of the above cases.

JAMES MOORE, Louisville, Ky.

DR. JOHN BULL.—I procured one bottle of BULL'S SARSAPARILLA for my eldest son. Among the remedies and various prescriptions that he has tried for weak lungs and chest, this one bottle has been of more benefit to him than all. It has cured me of Dyspepsia as well.

JOHN S. MCGEE, Horse Cave, Ky.

SCROFULA

Is a peculiar morbid condition of the system, caused directly by impurities in the blood or by the lack of sufficient nourishment furnished to the system through the blood, usually affecting the glands, often resulting in swellings, enlarged joints, abscesses, sore eyes, blotchy eruptions on the face or neck. Erysipelas is akin to it and is often mistaken for Scrofula as it comes from the same cause, impure blood. BULL'S SARSAPARILLA by purifying the blood and toning up the system forces the impurities from the blood and cleanses the system through the regular channels.

DR. JOHN BULL.—It is my opinion that your preparation of SARSAPARILLA is decidedly superior to any other now in use, and I will take great pleasure in recommending it for the cure of Scrofula and all diseases of the blood and kidneys.

B. B. ALLEN, M. D., Bradford, Ky.

PRINCIPAL OFFICE:

831 West Main Street, Louisville, Ky.
\$1.00 A BOTTLE.
For Sale by all Druggists.

KEEP THE BLOOD PURE.

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KANSAS CITY.

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James H. Campbell & Co., LIVE STOCK COMMISSION MERCHANTS,

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Unequaled facilities for handling consignments of Stock in either of the above cities. Correspondence invited. Market reports furnished free. Refers to Publishers KANSAS FARMER.

Farm and Stock Cyclopaedia,

CONTAINING EVERY TOPIC OF INTEREST TO FARMERS, RANCHMEN, STOCKMEN, BREEDERS, FRUIT-GROWERS, GARDENERS AND APIARISTS.

Is a condensation into practical and useful form of all that is of interest and value to all classes of agriculturists, ranchmen and breeders, in all sections. It is the ripe product of twelve of the most eminent writers and practical workers in the land. It treats over 1,000 important topics, comprised in one elegant imperial octavo volume of 1,284 pages. It contains 40 separate departments, each complete in itself and alone worth the price of the entire book. It is embellished with 400 elegant and practical engravings, and at its remarkably low price (\$4.50) is within the reach of every one. No man who tills an acre of ground or owns a head of stock can afford to do without this admirable work. Sent to any address postpaid, on receipt of price. Address, with remittance,

HAMMOND, FARLE & HAMMOND, General Western Agents, Kansas City, Mo

Choice, Highly-Bred HEREFORD BULLS and HEIFERS,

For sale reasonable. Come or write for Private Catalogue.

HEIFERS IN CALF TO BEAU REAL AND BEAU MONDE.

SHOCKEY & GIBB,
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C. W. WARNER & CO.,
Wholesale - Commission - Merchants,
Handle Butter, Eggs, Poultry, Fruit, Ranch Produce, Flour, Hay and Grain, etc.
397 Holladay street, Denver, Colorado.

600 Merino Sheep for Sale.

Mostly Ewes, acclimated and free from disease. I must sell as my range is all fenced.
J. C. DWELLE, Att'y at Law,
Florence, Kansas.

M. EHRET, Jr. & CO. SOLE MANUFACTURERS



FOR FLAT AND STEEP ROOFS.
— GUARANTEED —
CHEAPEST & BEST IN USE.
— ABSOLUTELY —
WATER, FIRE & WIND-PROOF.
PUT ON BY ANYBODY.
USE NO OTHER ROOF!
W. E. CAMPE, Agt.,
9th and Olive Streets, ST. LOUIS, MO.

THE STRAY LIST.

HOW TO POST A STRAY.

THE FEES, FINES AND PENALTIES FOR NOT POSTING.

BY AN ACT of the Legislature, approved February 27, 1886, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisement, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker-up, to the KANSAS FARMER, together with the sum of fifty cents for each animal contained in said notice.

And such notice shall be published in the FARMER in three successive issues of the paper. It is made the duty of the proprietors of the KANSAS FARMER to send the paper, free of cost, to every County Clerk in the State, to be kept on file in his office for the inspection of all persons interested in strays. A penalty of from \$5.00 to \$50.00 is affixed to any failure of a Justice of the Peace, a County Clerk, or the proprietors of the FARMER for a violation of this law.

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

Unbroken animals can only be taken up between the 1st day of November and the 1st day of April, except when found in the lawful enclosure of the taker-up.

No persons, except citizens and householders, can take up a stray.

If an animal liable to be taken up, shall come upon the premises of any person, and he fails for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

Any person taking up an stray, must immediately advertise the same by posting three written notices in as many places in the township, giving a correct description of such stray.

If such stray is not proven up at the expiration of ten days, the taker-up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered; also he shall give a full description of the same and its cash value. He shall also give a bond to the State of double the value of such stray.

The Justice of the Peace shall within twenty days from the time such stray was taken up (ten days after posting), make out and return to the County Clerk, a certified copy of the description and value of such stray.

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

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

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

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

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

Any person who shall sell or dispose of a stray, or take the same out of the State before the title shall have vested in him, shall be guilty of a misdemeanor and shall forfeit double the value of such stray and be subject to a fine of twenty dollars.

Strays for week ending July 7, '86.

Cowley county—S. J. Smock, clerk.

MARE—Taken up by S. B. Stewart, of Cedar tp., June 12, 1886, one black mare, 14 hands high, left hind foot white and white star in forehead; valued at \$65.

PONY—By same, one sorrel mare pony, 14 hands high, white hind feet, Spanish brands on left shoulder and hip, blaze in forehead; valued at \$15.

Republic county—H. O. Studley, clerk.

PONY—Taken up by James O. Ward, of Union tp., one clay-bank mare pony, branded on left hip, two white feet, flax mane and tail, star in forehead, snip on nose, age unknown; valued at \$18.

Strays for week ending July 14, '86.

Thomas county—James N. Fife, Clerk.

MARE—Taken up by G. F. Antim, of Sherman tp., one sorrel mare, about 13½ hands high, weight 700 pounds, supposed to be 7 years old, branded P & C on left shoulder and P C with bar above on left hip; valued at \$30.

Franklin county—T. F. Ankeny, clerk.

HORSE—Taken up by James McCurdy, of Williamsburg tp., (P. O. Williamsburg), one sorrel horse, 4 years old, white stripe in face, right hind foot white; valued at \$65.

MARE—By same, one bright bay mare, 4 years old, mark on neck supposed to have been made by a yoke; valued at \$75.

Douglas county—M. D. Greenlee, Dep. clerk.

PONY—Taken up by John E. Deming, of Marion tp., (P. O. Baden), June 15, 1886, one light gray horse pony, 14½ hands high, about 16 years old, weight about 850 pounds, no marks or brands; valued at \$25.

Cherokee county—L. R. McNutt, clerk.

MARE AND COLT—Taken up by Frank Spinning, of Spring Valley tp., (Neutral P. O.), June 8, 1886, one mare and colt, mare 14½ hands high, ears split, about 8 years old, branded y v on left shoulder, had leather halter on when taken up, colt sorrel, 1 year old, hip knocked down, had bell on when taken up; mare valued at \$65, colt at \$10.

Edwards county—J. S. Strickler, clerk.

COW—Taken up by William O'Toole, of Brown tp., June 30, 1886, one medium size red cow, branded G on both hips; valued at \$16.

Strays for week ending July 21, '86.

Clark county—J. S. Myers, clerk.

HORSE—Taken up by H. A. Sibley, of Liberty tp., (P. O. Lexington), June 30, 1886, one sorrel horse, saddle marks; valued at \$20.

COLT—Taken up by James Simson, of Center tp., (P. O. Ashland), June 9, 1886, one bay mare colt, branded open A E on left hip, left feet white; valued at \$25.

Kingman county—J. J. Stevens, clerk.

PONY—Taken up by John C. Bett, (P. O. Trenton), May 20, 1886, one mare pony, branded V. E. on left shoulder; valued at \$30.

Coffey county—H. B. Cheney, clerk.

MARE—Taken up by Joseph Lebo, of California tp., June 10, 1886, one 3-year-old bay mare, black legs, mane and tail, no brands visible; valued at \$60.

Reno county—W. R. Marshall, clerk.

2 PONIES—Taken up by G. F. Terry, of Reno tp., two iron-gray ponies, about 8 years old, both have Spanish brands on left hip and one has Spanish brand on left jaw; valued at \$25 each.

The Veterinarian.

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

TUMOR ON LIMB.—Will you please tell me what to do for my young mare. Last fall she got cut on a barb wire; it healed up, but has left a large bunch which is quite hard; the bunch is on the inside of her front leg close to the body. I have been using oil of spike sometimes in the center. It looks like it would break and run, but it never discharges much. [If you suspect the presence of pus in the enlargement have it lanced. If not apply a blister. Biniodide of mercury 6 drachms, lard 6 ounces. Rub in a small quantity every two days for five or six minutes at a time after cutting off the hair, applying fresh lard on the intervening day. When the part gets sore discontinue use of medicine for a week, then continue again till there is a reduction in the enlargement.]

INJURED HOCK.—I had a fine mare that got her leg hurt early last winter right above the hock on inside, and it swelled up very tight and would crack open underneath right at joint. Green matter would ooze out. She never went lame much and at present time is not lame any. I have never worked her a day since she was hurt. She was with foal, and her colt was foaled a month before time. Her leg went down about one-half in two or three weeks' time, but it is about twice its natural size now. [Swellings of this kind should not be allowed to run so long without applying proper remedies, as the longer such a swelling is in existence the more difficult it is to remove it. We suppose the mare is at grass at present. If so have her removed every night to the stable and give one of the following powders mixed in a bran mash or scalded oats: Nitrate of potash 3 ounces, gentian root 2½ ounces, licorice root 1½ ounces. Mix and divide into twelve powders. Keep the mare confined in the stable during the night and apply a large poultice of warm linseed meal around the swelling. But that the colt is running with the mare we would advise the application of a blister to the part, and the probability is that it will be necessary to apply one before the swelling disappears.]

STIFLE JOINT DIFFICULTY.—We have a colt about seven months old that is lame in the stifle joints; the caps are broken or slipped off the joints. He cannot walk much. Has been so for three months. He grows and looks well for being so bad. When he first got so we put on some blisters, but it did no good. I never saw anything like it. Some of my neighbors say it will never be good for anything. Now would like to know what to do with it? It looks like a hopeless case to me. We do not know how it got so. It has either slipped on the floor or some of the other colts have jumped on it and broken it down. Sometimes I think I will have to kill it, but it is a very good one and do not like to do it. What kind of needles do you use to sew up flesh wounds and how much would they cost, and what kind of thread is best to use? In fact, will you be so kind as to let me know how to sew up and dress, and heal up a barb wire flesh wound, as I have a good many horses and colts, and oblige. [The stifle joints evidently need bracing up or support of some kind. Use a pitch plaster on each side of the joint on both limbs. Burgundy pitch 20 ounces, resin 2½ ounces, yellow wax 2½ ounces, olive oil 1½ ounces, water 1 ounce. Melt the pitch, resin and wax together, then add the oil and water. Constantly stir the mixture

until it becomes of a proper consistency. Have two pieces of strong canvas cut, say twelve inches long by eight wide, and cut so as to accommodate themselves to the curvature of the joint. On these apply a thick coating of the plaster and immediately apply them against the inside and outside of the joint, leaving a space in front between the plasters of about two inches. In this space apply a strip of plaster running down in front. Do the same to the other limb. If it is necessary to still further strengthen the joints another fold of canvas can be applied against the inner ones.]

The money value of the fowls of France yearly is: Eggs, \$44,500,000; fowls, \$36,000,000.

For Cuts, Galls, Old Sores, Scratches, Thrush, etc., use Stewart's Healing Powder, 15 and 50 cents a box.

Clean sawdust, with a little sulphur sprinkled in it, is as good as any material for the nests of setting hens.

An experienced horticulturist thus describes his mode of planting fruit trees: He makes holes eighteen inches deep and three feet in diameter, fills in four inches of strong, short horse manure, then two or three inches of street dirt, sets the trees and fills with earth.

Farm Loans.

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

T. E. BOWMAN & Co.,
Bank of Topeka Building, Topeka, Kas.

JOHNSON BROS.

Garnett, - Kansas,



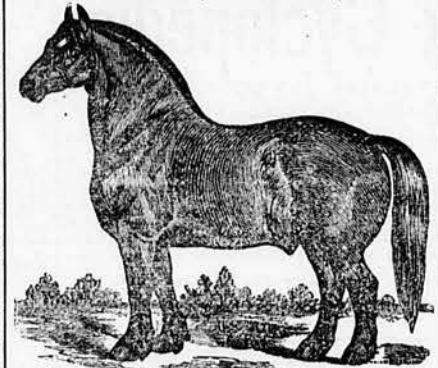
Breeders of and Dealers in Imported and High-Grade

French Draft Horses.

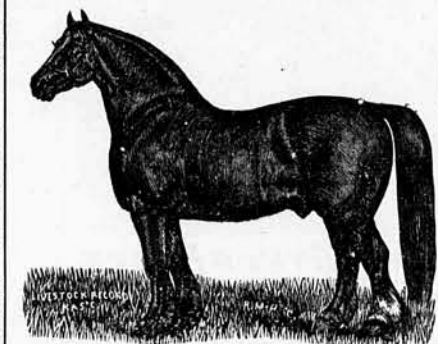
Choice Stallions for sale on easy terms. Write us and mention KANSAS FARMER.

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TOPEKA, : KANSAS,



Importers and Breeders of PERCHERON-NORMAN and CLYDESDALE HORSES. Sixty head just received from Europe. Write for Illustrated Catalogue.



JOHN CARSON,

Winchester, - - - Kansas,

Importer and breeder of CLYDESDALE and PERCHERON-NORMAN HORSES. Choice stock for sale, including some fine Grades. Also Jacks for sale. Correspondence solicited. Satisfaction guaranteed.

J. L. HASTINGS,

Wellington, - - Kansas,



Dealer and Breeder in Imported and High-Grade FRENCH DRAFT & CLYDESDALE HORSES. Terms reasonable. Satisfaction guaranteed. Correspondence solicited.

J. N. THOMPSON

MORAN, ALLEN CO., KANSAS,

Breeder, Dealer in and Shipper of

IMPROVED POLAND-CHINA SWINE.

Choice Pigs for Sale.

Pedigreed stock—C. P.-U. Record. Correspondence invited. [Mention this paper.]

Registered Poland-Chinas.

\$12.50 for strictly first-class Pigs. My breeding stock are very large, fine animals and represent some of the

MOST POPULAR FAMILIES.

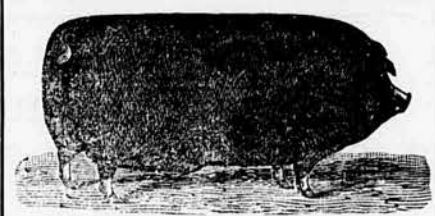
I can sell as good stock and as well pedigreed as any one. I solicit your correspondence.

J. M. SMITH,
Globe, Douglas Co., Kas.

RARE BARGAINS

RARE BARGAINS offered from the Golden Belt Herd of pure POLAND-CHINA SWINE. Three hundred Pigs, 2 to 3 months old, at \$8 each, \$20 per trio. Boars ready for service and sows safe in pig. \$15 to \$20 each. Cash to accompany order. None out first-class stock shipped. All my breeders recorded in A. P.-U. Record. Pedigree with every animal sold. These prices are reduced only for a short time. Order at once. F. W. TRUEDELL, Lyons, Kansas

EASTERN KANSAS HERD OF POLAND-CHINA HOGS.



Perry D. 5351 and White Ear 5117 at head of herd. Among the sows are Milla 6666 (O. R.), sired by Striker's Cor 6119; Fancy Gem 12448, sired by Gem's U. S. 2501; three sows bred by B. F. Dorsey & Sons, sired by St. Louis King 1993; six sows sired by Cook's U. S. 3549. Choice pigs for sale at prices to suit the times. Inspection invited. Recorded in O. P.-U. Record. Stock all healthy. J. A. DAVIDSON,
Richmond, Franklin Co., Kas.

THOROUGHbred POLAND-CHINAS



As produced and bred by A. C. MOORE & SONS, Canton, Ill. The best hog in the world. We have made a specialty of this breed for 38 years. We are the largest breeders of thoroughbred Poland-Chinas in the world. Shipped over 700 pigs in 1893 and could not supply the demand. We are raising 1,000 pigs for this season's trade. We have 160 sows and 10 males we are breeding from. Our breeders are all recorded in American P.-U. Record. Pigs all eligible to record. Photo card of 43 breeders free. Swine Journal 25 cts. in 2-cent stamps. Come and see our stock; if not as represented we will pay your expenses. Special rates by express.

OTTAWA HERD OF Poland-China and Duroc Jersey Red Hogs.



I. L. WHIPPLE, Prop'r, Ottawa, Kas.

I have for sale a fine lot of young pigs sired by Jay-Barker 2639, Ottawa King 2885 (the champion hog of Franklin county), and Buckeye Boy 2219, Ben Butler 2977, Leek's Gilt-Edge 2887, which are very fine breeders of fashionable strains. My sows are all first-class and of popular strains. I also have an extra fine lot of Duroc Jersey Red pigs for sale from sires and dams that have never been beaten in the show ring in four counties in Kansas. I have hogs of all ages in pairs or trio, of no kin, for sale. Herd has taken over twenty prizes this last year. My herd has never had any disease. Stock all eligible or recorded in Central Record. Please call and see stock, or write and give description of what you want. Inquiries promptly answered. Farm, three miles southeast of Ottawa, Kas.

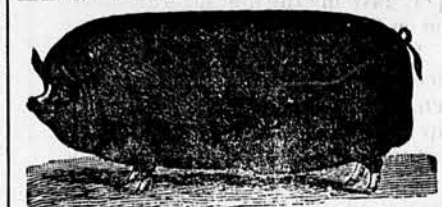
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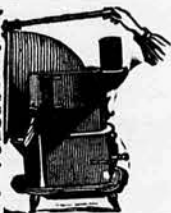
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TESTIMONIALS:

OFFICE OF KANSAS STATE AGRICULTURAL COLLEGE, MANHATTAN, KAS., June 21, 1886.

To whom it may concern:

This is to certify that we have for some time had one of the "Boies' Stock Watering Troughs," of which Messrs. Goodwin & Bishop, of Delphos, Kas., are the agents, and that the workings of the Trough have been entirely satisfactory from the first. The Troughs and connections are simple and not likely soon to get out of repair, and the supply apparatus is strictly automatic, working freely in such a way as to keep the troughs constantly supplied. This Trough seems to be a useful addition to our list of farm appliances.

Yours truly, E. M. SHELTON.

MINNEAPOLIS, KAS., June 13, 1886.

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Respectfully, J. T. WHITE, Live Stock Sanitary Commissioner.

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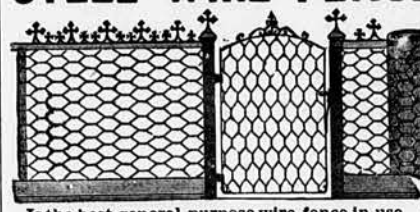
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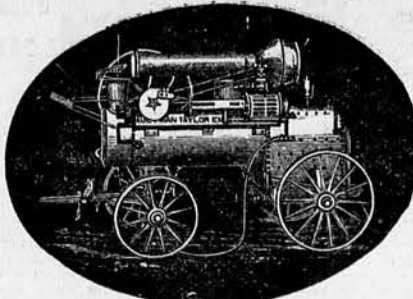
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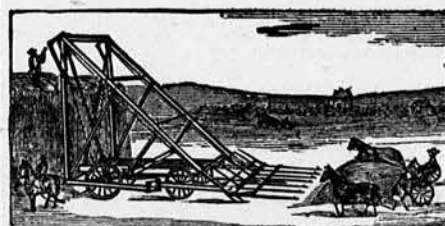
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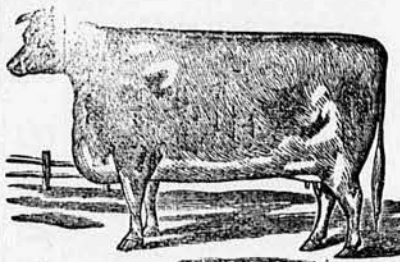
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