

# KANSAS FARMER

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## Agricultural Matters.

### What Makes the Farmer Poor?

EDITOR KANSAS FARMER:—The reasons given to the above question by your many correspondents appear generally correct, but many of these causes would not exist if it was not for a greater cause behind them; that is, over production of agricultural products. This word over production has a relative rather than an absolute meaning. To the consumer there can be no over production, but many commodities are produced in such quantities that the producers are not remunerated for the capital and labor expended in proportion to the same employed in other pursuits. The more plentiful the supply of any commodity the cheaper it becomes, and the scarcer the dearer.

It is frequently stated that where any commodity is actually necessary to the whole community (like most of the products of agriculture), the large crop or production of one year or a term of years is generally sold for less in the aggregate than a smaller crop for a similar term. If this be the case, then the remedy to the whole of the farming community will be for that community to produce less. This principle is recognized in all other trades and pursuits, and they have formed themselves into guilds, trades unions, trusts, associations and combinations of various kinds, one purpose of which has always been to lessen production or prevent its increase.

But, as the farmer competes in the markets of the world with the farmers of the world, a combination of farmers to materially affect the prices of farm products would need to embrace the farmers of the world; but their very numbers renders this scheme impracticable. What, then, is the remedy? A partial remedy would be, first, to induce none to enter the business, not even your own sons, and next, to induce as many as possible to leave it, including your own sons. But a real remedy for your own case will be to leave the farm yourself and go into something that pays you better, and you will leave it so much better for other farmers, and also make it so much better

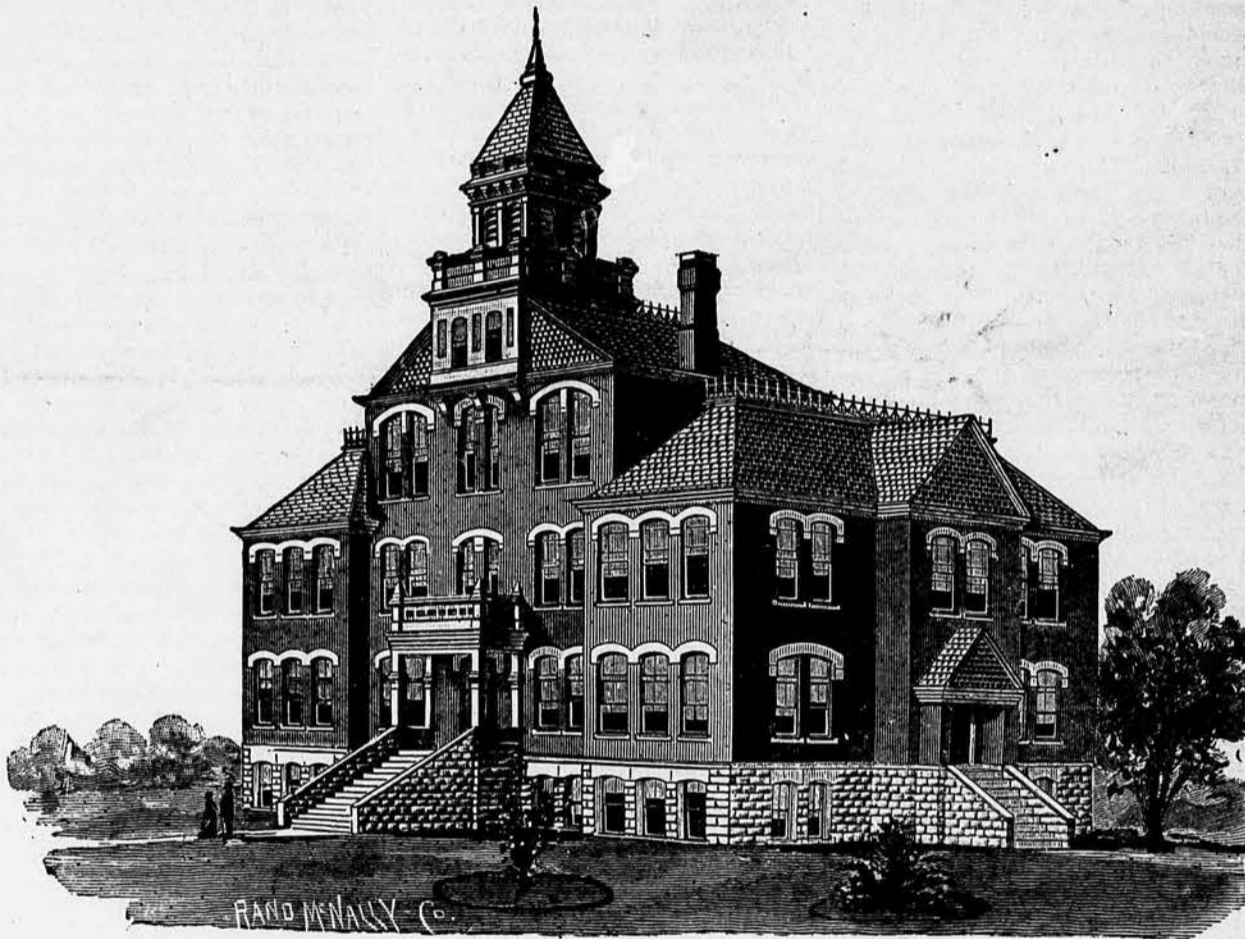
for them as consumers by your producing something else.

But I think I hear you say—"I don't like to quit the farm, it is such a safe investment for my capital where it is spread out to my gaze and the gaze of others, gratifying my vanity without danger of loss. Its atmosphere is physically and morally the best place to rear my family. I love to see plants and animals grow and commune with nature.

the runners a foot or eighteen inches high, that is drawn along the space between the rows by a steady horse muzzled so he may attend strictly to business. The sled should about fit the space between the rows. Upon each side of the sled are strongly-hinged and braced wings of light boiler iron, probably eighteen inches wide; the front of this hinged plate is cut at an angle of 45 deg., sloping backward; to this edge is bolted a

like waste to cut corn so green, and my neighbors said so, but I never fed better feed to stock. I had horses, hogs and milch cows, all of which did better than any I had every taken through the winter on other feed.  
W. F. FILE.

The brood mare should be sound in every way and herself the offspring of sound ancestors, as disease in the equine race, the same as in the human, is hereditary; and



CENTRAL NORMAL COLLEGE, GREAT BEND, KAS.

[SEE ADVERTISEMENT ON PAGE 7.]

If I am poor, I like the independence of the occupation, where I do not feel obliged to flatter, fawn and cringe to solicit necessary patronage for my business, where I am not obliged to incur useless expenditures to keep up appearances." These are real advantages, and it is these very advantages in farming that causes and always will cause the business to be overdone in a financial point of view. And if farming has all these advantages to offset its poverty we should be willing to accept our share of the bitter with the sweet, as well as others; but if the advantages do not offset the disadvantages, then we should leave the business and go into something else giving a larger balance to the credit side of the account in the "pursuit of happiness."  
J. WHILDIN.  
Summerville, Ottawa Co., Kas.

### Machine to Cut Corn.

EDITOR KANSAS FARMER:—In your issue of July 24, the question was asked—Has there been a machine invented that will successfully harvest corn fodder? You may answer yes, if the corn stands up pretty well. I saw several in operation in Ohio last fall; got upon the machine and took the place of one of the men operating. Two men can cut 100 large shocks in a day easily. The machine was at the fairs at Columbus and Cincinnati. I don't remember the makers. The machine is a small sled with

steel blade three or four inches wide, sharpened by grinding each half day. In operating two men stand upon the machine, one foot on the wing and one foot on the sled to catch the hill in their arms as it is cut by the machine. When their arms are full the horse is stopped, they step down and carry it to the shock and set it up. Where I helped the corn was very heavy and they were intending to seed it with wheat; they were cutting eight by sixteen hills, as eight hills was all a man could carry, and they could stop opposite the shock each time. They made "galluses" of four hills; they cut up one side and down the other. In cutting the first round the man next the shock would step down, set his fodder, and throw over on top of the sled his wing until the sled passed the shock hills, then reverse it, get on and cut to the next shock.  
MINTURN.  
Colwich, Sedgwick Co., Kas.

### Out Corn Early.

EDITOR KANSAS FARMER:—The great mass of farmers in the West do not cut corn for fodder early enough. When the corn is in good roasting ear or just glazing is when it has the greatest value for feed. The starchy qualities have just begun to develop and it is then richest in saccharine. In 1877, I planted corn every fourth furrow after the plow on the 26th and 27th of June, and cut it the 18th and 20th of August. It looked

unsoundness of limb and wind is transmitted to the offspring. Not only is this the case, but also all the faults and vices, in shape, size, color and temper are as readily reproduced in the suckling.

If there are two teams kept, one should be composed of draught horses and the other of much lighter animals, but neither should be so out of proportion as to be unsuited for any kind of work, if it is necessary to put them at it.

In Great Britain there appears to be a decline of 4,600 in the number of agricultural horses, caused, it is stated, by the altered system of farming, namely, the more general use of agricultural machinery and the continued conversion of arable land to the purposes of rearing cattle and sheep.

Take a team full of life, vigor and fire, and one or two jerks and harsh words from the driver will so excite the animals that they will almost be unmanageable the whole day, and will worry themselves out in a short time through mere fretting; but if the same team be taken in hand by a driver who will handle it in such a way as to get the excitable animals to work without in any way fretting them, they will in a short time be moving along smoothly and at the same time quickly, and within an hour would be showing the results of extra stamina.

## The Stock Interest.

### THOROUGHbred STOCK SALES.

Dates claimed only for sales which are advertised, or are to be advertised, in this paper.

OCTOBER 8—John Lewis, Short-horns, Miami, Mo.  
OCTOBER 9—John Lewis, Poland-Chinas, Miami, Mo.

### ABOUT THE RUNT PIG.

A Missouri correspondent (John B. Thompson) of *Breeder's Gazette*, in the issue of June 19 last, wrote:

That there are in nearly all litters some members of which are smaller than the others is well known. Just why this is so I have never been able to discover, notwithstanding a number of lengthy opinions and theories that have come under my observation. Therefore, it is not my intention to discuss at any length the first four months of a pig's existence, but it is of his life succeeding that period I would speak. I am, however, of the opinion that the "runt" is caused in the beginning by failing to obtain a sufficient amount of nourishment from the dam. This is prevented quite likely by his position while yet in the foetus state. But he is a "runt," and the proprietor is heard to exclaim some bright, beautiful morning in the spring, when all nature seems laughing with joy, when he first beholds a pen full of black, sleek, squirming little piggies, "Shall he be allowed to 'root hog or die,' or will he be assisted to obtain a foothold upon his struggle for life?" Many allow him to accept the former course, while some lend a hand to his feeble efforts upon the latter. It is really surprising how they do live at all sometimes, when there is a large litter. If they can keep warm and get to a teat they are most likely to hold out for a while at least. This is the important crisis of any pig's life, to keep warm until dried off and once draw milk. If the litter is large and there are not teats for all of course some will "peg out," and it is well to sacrifice the "runt" if any have to be so served. I sometimes put them on another sow if I happen to have two or more litters at the same time. When they are thus changed they should be marked unless they have some peculiar markings or characteristics by which they may be distinguished from the others. I think it best to endeavor to hold on to the "runt" for a few days, or until the rest of the litter get started, for some of the others might die, then the "runt" could take the vacant place. Where the litter is large I always watch the youngsters for a day or two. If not busy I take my cot and the *Gazette*, or some other paper, and stay right with them. If I save a pig or two I think I am well paid for my trouble. Still if busy I put them in a box and spread a blanket over the top to keep them warm. You who have never tried it have no idea how warm they can be kept in this way. If on going to the pen I find the sow has already farrowed and the pigs become chilled I put them in the box, and put also a lighted lantern in with them, and put on the cover. Watch them close, for you will have steam up in a short time. They can be warmed up quicker in this manner than in any other way. The idea now is to give the "runt" a good start, and it cannot be done unless he is attended to when the litter draw their milk, hence I have shown how the litter may be taken care of while this is being done. He must be given a good teat, and no other pig is to be allowed at it or to push him away. Learn him to suck his own teat, and if it is a good one he will do surprisingly well. The main point is to see that he is at his place when the milk comes. It does not run all the time the pig is tugging away; only a few seconds suffice to give piggy his meal. The attendant will soon learn this, and also how to induce the sow to let her milk flow, by making a sucking noise—that is, imitating the pigs when they are receiving the milk. The "runt" should be watched and seen to

this way until he has become thoroughly established as a member of the family.

I like large litters, and always endeavor to save a pig to every teat. If there is anything I do hate it is to see a great fine sow tracking around with only three or four pigs, when she could just as well have taken care of two or three times as many. By thus assisting the "runt" he will be able to live, and very often make a large and useful hog. I once paid \$60 for a sow that was the "runt" pig of the litter—so the man afterward informed me. Of course had I known it at the time I should not have bought her. Still, even if these instructions are strictly followed they will not prevent there being some "runts" at weaning time. Many are made by not having a good teat. The two hind teats are seldom so good as the others. Other causes may also prevent the even growth of the litter. Worms are quite a detriment when present in any quantity. Lice are too often the real cause of a pig failing to grow as he should.

At about two or three weeks old the pigs will be ready to go to eating, as at that age the sow will fail to furnish them enough nourishment. A little fresh milk will start them quicker than anything. They are very fond of it, and will take to it at once provided it is warm. Now is your opportunity to give the "runt" another lift. Give him the advantage on every occasion. By a little patience as many or as few as one may wish can be taught to enter a pen by themselves and be fed food especially rich. By feeding in this way the litter may again be evened up. They can be tolled in easily, but whatever you do do not catch them to get them in. The idea is to teach them to go in themselves and be fastened in away from the larger ones, and when through eating let out again to follow the dam. If you go to catching them they will become wild and difficult to manage. It is better to let the whole lot enter, and after they have done so a few times gradually and gently cut out the larger ones, which can be fed elsewhere. This leaves the "runts" where they ought to be—where there is better and richer food. This kind of treatment may be continued so long as wished or necessary. After weaning time, and the pigs are all running together, it will be a good idea to feed a few by themselves in the manner spoken of. It makes good or better hogs out of the inferior ones than if left to themselves. It also evens up the herd, which is always a great source of satisfaction to me, and it will be found to pay whether the hogs are to be sold for the market or for breeding purposes. There is nothing which adds so much to the beauty of a bunch of hogs as having them all of a size, to say nothing of the other advantages such a condition may have.

Another point is that the smaller ones are often imposed upon elsewhere than at the feed trough. Every once in a while some of the smaller pigs, after they have attained the age of two or three months, will be broken down in the hind quarters seemingly by a kind of rheumatism. This I think is nothing more than a result of being ridden about by the larger ones. The best cure is rest. Place the one so affected in a pen by themselves, and if they are weaned they may be left there until they have entirely recovered. Feed sparingly, keeping the appetite sharp. Treated this way a few days and they will likely be all right, and can then be turned out with the rest to run as before. All this may be too much care or trouble for many farmers or breeders, but it is none too much for one who appreciates the profit there is in the rearing of swine, and is aware that the hog is one of the best mortgage payers to be kept on the farm. Treat him right and he will pay you.

The correct way is to buy goods from the manufacturer, when possible. The Elkhart Carriage and Harness Company, of Elkhart, Indiana, have no agents. They make first-class goods, ship everywhere, privilege to examine. See advertisement.

### Imperfect Stables.

On how many places, should stables be visited by a committee of inspection, would the stables be found so perfect in their arrangements as to call for no criticism? I imagine those which would be graded perfect are few, says Waldo F. Brown, in the *Olio Farmer*. Yet the stable is a very important part of the farm economy, for it is there that a large part of the farm manufacturing is carried on. The hay, fodder and grain are made into butter and beef, and the fertilizers are prepared that are to restore the waste of the farm and enable us to grow profitable crops in the future. The essentials of a good stable are that it should be warm so that in winter no cold draughts blow on the stock confined without exercise, and at the same time it should be lighted and ventilated; that the arrangements for getting the food to the stock be such as to economize time and labor, and to enable us to clean the mangers readily and quickly; that the stable floor be made tight so as to save all of the manure, liquid and solid, and so arranged that the stock is not liable to be soiled, and the manure can be easily removed, and that there be good roomy box-stalls to be used for cows at farrowing time, for mares either heavy with foal or with young colts and for wintering calves and colts. Tried by these standards few stables will be found that fill the specifications. It may not be easy to remodel an old barn so as to get the perfect stables, but in most of them a little planning and a moderate outlay of time and money will result in great improvement.

Perhaps an enumeration of some things which I have seen, and some suggestions, may be helpful to our readers: First, I suggest that on the first rainy day when you are at leisure you go to your barn and study for a few hours the details of your stable. I will tell you what many of you will find—cracks between the weather boards that will let the cold winds in and the fine snow sift through when there is a blizzard, so that your stock will stand and shiver. Stock will be far more comfortable out of doors where they can exercise and seek the lee of a straw stack or the shelter of a grove, than when confined in such a stable. To keep animals under such circumstances is an expensive cruelty, for at least one-fourth of the food eaten is consumed in maintaining heat, when it might as well be used in making beef or milk. The thing for those to do who find the stable in this condition is to buy paper and lumber and have the stable double-boarded before winter comes. After you have tried it one winter, if you do not conclude this to be good advice, send the bill to me and I will pay it, provided you will agree that if you do and that the advice was good you will send me a \$10 bill as a fee for professional services. Some of you will find a worse state of affairs than this, for in addition to the cracks in the sides of your stable there is no underpinning, and the wind sweeps under the stable and comes up through cracks an inch wide in the stalls. You ought to go around behind the barn and kick yourself on making this discovery, and then if you do not remedy it I would like to tie you in one of those stalls on the birthnight of next winter, when the mercury has dropped down near zero and the wind is out on a tear. I think before morning your repentance would be genuine and your resolutions of amendment sincere.

But these cracks are costing you more than merely the extra feed to keep your stock warm. Just listen a moment while I read from a table giving the values of manures, and there is no question of the accuracy of the statement: "The fresh, solid excrement of a horse is worth \$1.30 and the fresh urine is worth \$8.62 per ton. The solid excrement of the cow is worth 86 cents and the urine \$3.14 per ton." These valuations are based on the values of nitrogen, phosphoric acid and the pot-

ash in them at the same price we are charged for them as commercial fertilizers. The urine, then, being so valuable, is not a leak in the stable floor worse than a leak in the roof? How many stables have floors tight enough to save the liquid? I was in the stable of a neighbor last spring, and saw one of his horses standing in a pool of urine where the floor had been worn hollow, and seeing that I noticed it he said, apologetically: "I bored some holes in the floor to keep the stall dry, but they have got stopped." I said to him: "Don't you know that one pound of urine is worth six pounds of the solid matter?" He answered indifferently, as though it was a matter in which he had no interest: "Yes, I believe it is," and the holes, I think, are still in the floor. Yet this man is, in nearly every respect, an unusually good farmer. Yet such is the force of habit that while carefully saving his solid manure, although he had a large stock of clover straw from which he had threshed seed, which on a tight floor would have absorbed all this liquid he bored holes in the floor to get rid of it.

### The Horse and Its Master.

"A Horseman" writes thus in *Colman's Rural World*: Being a constant reader of your valuable paper, and taking particular interest in the horse, will you permit me to occupy a small space for the purpose of setting forth one or two important features in the management of that valuable animal which may probably prove of interest to some of your readers. What I wish to show as clearly as possible is that kindness is preferable to brutality. The horse is undoubtedly man's most useful servant. It is the means whereby many a large family is maintained, clothed and fed. It is the servant of both wealthy and poor, the young and old. It is in demand by almost every one from the child up, either as a pet pony or a horse to ride, drive or gain a livelihood with. Ought we not, therefore, to consider somewhat its treatment by its drivers and owners?

I have owned horses and taken deep interest in them all my life, and have in every case always succeeded in the management of a horse better by kindness than harshness. I remember once learning a lesson with reference to what is termed a balky horse, and the simple method here explained I have never known to fall more than with perhaps one horse out of every ten.

You have, no doubt, witnessed horses with a heavy load in a tight place and have seen the driver using the whip very freely, also swearing and shouting. Now I venture to say that any horse with a reasonable load will move it and go along freely afterwards if treated in the following manner: First cast the whip on one side and consider that you have not got one, take the lines in your hands at a good distance from your horse, stand in front of his head, say two or three yards, look straight at the animal and if necessary shout, kindly, mind.

You will then find the horse looking at you with wondering amazement and immediately follow you. I should like your readers to try this plan and tell me through your columns of their success. It is quite customary, I find, when a horse is termed good-for-nothing to send it to some place of sale, generally an auction sale, and sell it for what it may fetch. But I maintain that horses should not be termed good-for-nothing; they are all good for something with proper treatment.

Have you suffered long by reason of Malaria: tried everything, and finally come to the conclusion that "all men are liars?" Send one dollar to Dr. A. T. Shallenberger, Rochester, Pa., and get a bottle of his Antidote for Malaria. If not cured in a week, say so, and the money will be immediately returned to you.

### In Summer Days

You can reach the cool and charming resorts of the Northwest, in the new and elegant Vestibuled, Family Compartment Sleeping Cars, recently placed in service on the Chicago, St. Paul & Kansas City railway. Round trip tickets at reduced rates. Time two and one-half hours quicker from St. Joseph to St. Paul and Minneapolis than any other line. For further information, address Geo. C. KNOCKE, Passenger Agent, 122 North Third street, St. Joseph, Mo.

### 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., Jones Building, 116 West Sixth street, Topeka, Kas.

## In the Dairy.

### A New Butter Extractor.

A late Swedish invention which operates on fresh milk, separating the butter from it in the operation, was patented recently in the United States. The inventor, C. A. Johanson, thus describes it: (We copy from *Hoard's Dairyman*.)

"The object of my invention is to separate, collect, and remove the butter from fresh milk, leaving fresh skim-milk or blue milk, and not 'buttermilk,' as is obtained as a residue by the ordinary process of churning.

"Fresh milk, as is well known, consists of 'blue milk' and butter fat, the latter being distributed through the blue milk uniformly in the form of exceedingly minute globules—the compound forming a sort of emulsion. The specific gravity of the blue milk is greater than that of the butter fat, and when the milk is submitted to centrifugal action, in an ordinary centrifugal creamer, the greater portion of the blue milk is separated and the globules of butter fat crowded more closely together. These globules are too closely massed together to be fully displaced by the particles of blue milk by the centrifugal force, and thus these particles of blue milk held mingled with the butter globules form a compound known as cream. When this cream is churned by the ordinary methods, the results are butter and buttermilk. The only function of the ordinary centrifugal creamer is to divide the milk into blue milk and cream, and this cream must be afterward churned to produce butter; and, so far as I am aware, some lactic fermentation must take place in the milk, in order to effect the separation of the butter by churning the cream.

"By my method I extract from the fresh milk in a continuous manner substantially the whole of the butter fat, leaving as a residue fresh skim-milk without any appreciable lactic fermentation.

"In carrying out my invention I employ a modified form of centrifugal apparatus somewhat like that usually employed in creameries. The fresh milk is introduced at the top of the drum through radial inlets, and is at once thrown outward toward the periphery of the drum, the heavier particles of the blue milk displacing or crowding aside the butter globules, and causing the latter to become crowded together and to hold the particles of blue milk, which are thus incarcerated and prevented from escaping. These butter globules and the blue milk particles retained between them form an inner cream wall. In order to separate the butter from the cream in this cream wall or stratum of the annular mass, the apparatus is provided with a trundle wheel, which is mounted on a shaft arranged parallel with the centrifugal apparatus. This trundle wheel stands inside of the drum, and its periphery enters the cream wall. It is free to rotate, and the rapidly revolving cream in the drum carries it around at nearly the same speed as that imparted to the cream. The entry of the staves of the trundle wheel into the cream wall and their withdrawal therefrom effects a sufficient agitation of the cream to cause the butter globules to separate and allow the particles of blue milk to escape from between them, and afterward, as these globules sink down toward the outlet, they are enabled to coalesce and form a mass of pure butter, wholly freed from blue milk. The function of the trundle wheel is that of a revolving separator, to part the globules of butter and permit the centrifugal force to act upon and drive out the particles of blue milk thus freed; alone, the centrifugal force will not suffice to free these particles. As the butter sinks down, the particles of milk are gradually removed therefrom, and by the time it reaches the delivery point at the bottom it will be a mass of pure

butter. This mass of butter is removed as fast as it forms by a stationary pipe, the end of which is arranged to cut out and lead off the butter; or, in another form of centrifugal machine, the butter mass, as it sinks down, flows out of itself over the lower margin or lip of the drum. The blue milk, which is simply sweet skim-milk, containing only a trace of butter, may be led off from the machine in the same way that it is led away from the creamers in common use.

"In carrying out the process the fresh milk may be fed into the apparatus continuously, and the extraction of the butter therefrom kept up as the supply of milk is maintained.

"The advantages of the process are these: The butter may be extracted in as short a time and with as little expenditure of power as cream is now separated from the blue milk. The butter product is absolutely pure and free from the germs of fermentation. The milk product is fresh skim-milk, also pure and free from lactic fermentation, and not buttermilk. The process is continuous, and may be carried on as long as the supply of fresh milk is maintained, and the milk may be treated while perfectly fresh and new, and no delay or heating is needed."

### Sweet and Sour Cream.

In a letter from a correspondent he asks, first, does sour cream make more butter than sweet cream? Does sour cream make better butter than sweet cream? In answer to the first question we would say that it is generally supposed that sour cream makes the most butter, but it would puzzle anybody to tell why. Certainly souring does not add to the richness of the cream. The answer to the second question depends upon the taste of the consumer. We like butter made from sour cream the best, but others do not. One of our best dairy writers rather favors sweet cream butter. He says that it needs no proof when it is said that acidity is one of the processes of decay, though decay is not necessarily immediate, and that souring cannot create a better flavor than the natural one, though the consumer by habit may have come to acquire the preference for an artificial flavor in butter, just as one often prefers fruit pickled to give it a smart, acrid taste or flavor. The great difficulty in succeeding with sweet cream butter will as a rule, be found in imperfect churning, resulting from churning at the same temperature used with sour cream, so as to make the one come as soon as the other. This high temperature curdles the caseine, and causes it to adhere to the butter instead of being made independent of it. The butter thus charged with caseine gives it a light color, prevents solidity and does not give sufficient length of time in churning to bring the smaller butter globules into adhesion with the larger ones, and they go off in the buttermilk, making a double loss, for the butter is weighed down with undesirable caseine, and the buttermilk is rich in butter globules. If churned at 56 deg. it would have taken a longer time, it is true, to bring the butter, but natural adhesion would have united the butter globules, and the lower temperature would have held the uniting of the caseine and fats in check, and a perfect separation without loss would have resulted.

Another serious defect in the usual course pursued with sweet cream, is to mingle creams of different ages or skimmings under the impression that they are alike unchanged, but when together each will have its own period of granulation, and to churn all overchurns the oldest, and in this way defective butter must result. When the amount of cream at each skimming is sufficient for churning, a uniform butter can be made; but only under rare circumstances with fixtures.—*Western Rural*.

### Aromatic Butter Automatically Produced.

One of the best authorities in this country on all matters pertaining to the dairy is *Hoard's Dairyman*, of Ft. At-

kinson, Wis. We find in that paper, of July 13, the following letter from Wm W. Coakley, an expert butter and cheese-maker, now in the employ of C. J. Heimdal & Co., of Utica, Wis:

### FINE CREAMERY BUTTER.

MR. JOHN BOYD:—I write to tell you that I am considered an expert butter and cheese-maker, of eighteen years experience; am at present operating a creamery here with Danish-Weston separator and Boyd's automatic cream ripening vat, etc., and I will say for your benefit that your method for ripening cream beats all others. I can truly say that it so simplifies butter-making that the services of an expert butter-maker are no longer necessary. The most essential point in butter-making is to know when the cream is just right to give out all the butter, and at the same time acid enough to give it a keeping quality. Your method has accomplished what 90 per cent. of the butter-makers could not do in this respect, and then the butter is of better quality and uniform, the cream having been excluded from all impure atmospheres. I am delighted with it, and will use my influence whenever and wherever I can, to get the process into general use. Wm. W. COAKLEY, Utica, Dane Co., Wis., June 30, 1889.

## The Poultry Yard.

### POULTRY EXHIBITIONS.

Kansas Poultry and Pet Stock Association, Wichita, Kas., December 3, 4, 5 and 6, 1889. Harry Swift, Secretary, Marion, Kas.  
Covis County Poultry Association, Winfield, Kas., November 26, 27, 28 and 29, 1889. C. W. Farr, Secretary, Winfield, Kas.

### A Poultry House.

EDITOR KANSAS FARMER:—The facilities for rearing fowls are so manifold that the beginner, in looking over the different appliances illustrated in poultry papers, gets so bewildered as to conclude the poultry business too complicated for ordinary mortals. A knowledge of the wants of fowls must precede everything else if success is to be attained, and the breeder who begins with one hen and an old barrel will almost invariably surpass, in five years, the breeder who commences with a five-hundred-dollar poultry house without this knowledge.

"Poverty is the mother of invention," and the person who has no other convenience than a half barrel to commence business, usually has poverty enough to be motherly from an inventive standpoint. One of the most successful breeders in the State began with no other conveniences or capital than a dry-goods box and one hen. Knowledge and capital, one sustaining the other, increased together, until the business to-day is on a firm basis, which baffles chicken cholera, skunks, rats, low prices, and everything else which tends to discourage a beginner.

A poultry house should have a dirt floor, six or eight inches higher than the ground on the outside of the building. This floor should be made by filling up to the required height with clay or some other soil which can be packed hard and solid. The clay should be put in when wet and tamped with something very heavy. On top of the clay there should be two or three inches of any ordinary soil which will act as an absorbent. The house should be cleaned out at least twice each week, and when the fowls are confined through the winter season, it should be cleaned every second day. Each cleaning will take some of the top dirt above mentioned, which should be replaced as often as the hard clay appears through the surface dirt. No kind of a floor is so well adapted to the wants of a chicken as this, besides there is none so cheap, and none that will keep the house so free from unpleasant odors. A little ashes and lime thrown in each time with the top coat of dirt will be advantageous to the fowls as well as add quality to the manure. Somewhere in the building there should be a bed of real dry earth, pulverized fine, for the chickens to wallow in. This bed should be so arranged that the fowls cannot roost over it, and it should be renovated often with fresh dry earth. Dry earth, pulverized, is as essential to the surface of a fowl's body as water is to a human's body. Disease comes from not having ease, and ease comes from having the natural wants supplied. Supply these wants and you will contribute to health, and the more health there is aboard any

business the more profit there is at hand. Having profit, there is a chance for energy to take hold, and if energy gets under full sway every detail will be looked into, success is near by. When success is attained, the "successor" is at liberty, so far as public sentiment is concerned, to "coin" as many words as he can appropriately apply.

Be pleased to push and be pushed, to be plucky, plain and prosperous, then we are apt to arrive at our cherished goal.

T. F. SPROUL.

Frankfort, Kas.

### Duck Farming.

EDITOR KANSAS FARMER:—The rearing of ducks on a large scale is yet in its infancy, compared with that of other poultry. The profits are greater than can be produced from an equal number of chickens, and were the same amount of attention given them that chickens receive there would be more breeding them.

If managed rightly—we emphasize the words, managed rightly, because this is the fundamental point, foundation and corner stone of every industry, more particularly poultry farming. When the surroundings, requisites and facilities for a good market are favorable, and the manager a man of experience, enterprise and foresight, there is no danger but a duck farm would pay handsomely on the investment. A person should have experience in raising ducks on a small scale, know the best for production and market, and know how to feed and turn them to profit. The novice in duck culture would hardly succeed so well, if at all. One should not be led to embark in the business by what he reads in some of the papers, for many statements are misleading and written by enthusiasts who know no more of poultry culture on a large scale than a hog knows about phrenology. The right person in the right place would no doubt make a duck farm a success. There are not "millions in it," we wish you to understand, but a fair percentage on the investment, perhaps much better than could be realized from ordinary industries.

Cheap low lands, with small streams or artificial ponds that can be cleaned and renewed frequently in warm weather, and free from muskrats, minks or turtles, where grass and vegetation are abundant, and where it is convenient to a large city or near good railroad transportation. This is about what should be had for their successful cultivation.

The capital required would depend upon the extent of the farm and how many ducks you intended keeping. You should, of course, use a portion of the land to cultivate cereals, vegetables and root crops raised for support of help and for the stock. Cattle, sheep and hogs may be added to assist in paying expenses. A part of the capital would return in six months, if everything were ready to commence operations in the spring. The expense for incubators and brooders would be the heaviest part of the outlay at the beginning, and your stock of ducks, too, would be quite an item. We think best to start small and build up and spread out as your success brings you to your limit each season. In a few years you would be well established and your experience would be the best capital you would possess. Nothing is ever accomplished in a short time that amounts to much; perseverance and constant work is the only true means of gaining prominence in any pursuit.

X. Y. Z.

Pittsburg, Pa.

### Hardly Fair.

The case which A. W. H. presents, being two years old, it is hardly fair to make a personal matter of it now. It charges a fraud, too, when in fact there might not have been any crookedness about the transaction.

The manuscript and inclosures are saved, subject to the order of the writer.—EDITOR.

## Correspondence.

### Shall We Abandon the Old Parties?—No. 1.

EDITOR KANSAS FARMER:—I agree fully with you that "this question ought to be discussed in the light of reason," or on business principles, not in any way partisan. Having from my first vote in 1844, down to my last in 1888, been battling for reform and within the line of political organizations, I feel the more free to speak, caring more for the good of the masses than for party lines or organizations.

Organization and agitation is the only hope left for the tolling and producing classes. Farmers' organizations should be for a special purpose, and the main feature for improving the condition of farmers, whatever that may be. The only question to be decided then is, Will a farmers' organization accomplish more—be more certain of, and in the line of, relief from our present surroundings in a separate party, or can the force of numbers, earnestness and devotion to our interests be made more effectual within the political parties as organized, however strong or weak? Belonging to no local organization of any kind, I feel no embarrassment or bias of a partisan nature.

The farmer's relief must come from law; laws are made by men elected by votes; votes are furnished and supplied by farmers. The transportation of farm products, the land piracy in shape of organized trusts and combines are the essential points of attacks by legislation either State or national; therefore they may be properly termed political. How shall they be met? By farmers' alliances, agricultural societies, farmers' institutes or granges? These are generally manipulated by politicians, whenever there is a prospective fee or a salary. These have generally been made up or represented by delegates appointed by those in power, for political purposes only. They have too often passed milk and water resolutions on some essential points, to be read and forgotten. This is just what the combines feeding at the farmer's crib want. Thus it has been in Kansas. Meantime this noise relieves not; nor is there the slightest prospect of relief from this source as heretofore conducted. Then it seems fair to ask—Can these various auxiliaries be made to command attention at the law-making power and remain non-political? In one way they can. These various auxiliaries can be frequent and formidable meetings and earnest and decided expressions on these special points of relief, inject into the old parties a fear and trembling that will produce results. The prohibitionists forced the Republican party to make that the chief corner-stone and rallying cry without a new party organization. Mr. Thurber, of New York, one of the ablest and clearest-headed anti-monopoly writers in the country, has with great force claimed that the reforms advocated by the Greenbackers and Union Labor parties could have been made more effectual and brought relief quicker, with the same effort and agitation, within the old parties. The abolitionists, out of which came the Republican party, thought differently. When any new political organization becomes formidable and able to hold a balance of power, it becomes the rallying point for every mountebank and charlatan in the old parties. They seek to control its councils for personal ends, get possession of the machinery only to destroy. The politicians are always for the doctrines of the majority or the controlling element in the party. In Pennsylvania, Massachusetts and Rhode Island they are anti-prohibition, because the saloons dominate and are all-powerful on election day; in Kansas these creatures blister their tongues crying "I am a prohibitionist"—forced thus to do by the power of votes. This was patent in the last Legislature. Notwithstanding the consummate "shytering" on the interest and combine questions, the railroad law of 1883 was forced through the Senate by the overwhelming power of public opinion, although the railroad management held full possession of that body until the last few days of the fight.

These are some of the thoughts favorable to the conclusions of the KANSAS FARMER. The people want relief and want it now; they must have it or go to the wall as matters now confront them. Again, I agree with the FARMER that any attempt at separate political organization will bring to the front all the leading politicalisms of the several parties in existence. Each member will seek to imprint his parties leading features on the new party, and if successful, go out of the meeting singing his own *te deum*, because the love of old parties is stronger than the desire for bettering the farmers' condition. Yet separate orders like the grange, once so powerful in parties that

every lawyer and professional politician had "hayseed in his hair," went down and died, though claiming to be non-political. If, then, the alliance will adopt a code of principles demanding relief by law either State or national and follow them up to the primaries, conventions, and hall of the law-making power, relief will come and that speedily and without any political organization. If this course is vigorously pursued and fails, then I am prepared to prove that the only organization that can bring relief is a political one. To discuss the best methods of farm management is fruitless if the laws are against us, allowing capital to absorb the entire earnings of the laborer and farmer. What is producing the greatest distress and widespread alarm to the business of the country is the continual daily, monthly and yearly contraction of the circulating medium, carrying down the prices of land, labor and every product the farmer has to sell, and the want of law to control these trusts and combines that are able to fix the highest price for every article the farmer buys. Therefore, if the alliance is square on the money volume, transportation, combines and pools, I am for it without separate political organization; if not, I am against it.

FARMER.

This communication was the first received on the subject named, and it was marked No. 1, on that account intended for use last week; but by oversight in not calling the foreman's attention to it, No. 2 was used.—EDITOR.

### Friendly Words from Brown County

EDITOR KANSAS FARMER:—Your weekly visits are appreciated more and more, especially since you come with such a beautiful head and clean white paper before your readers. That miniature map of Kansas is certainly a gem, and every part of the head is bright and distinct. Long may you wear it without a blemish or wrinkle, and long may the FARMER live to instruct the enterprising farmers and other men of honest industry, until all of our State is made good as well as great, intelligent and upright as well as productive and prosperous. Kansas is the center and therefore the heart of our great and vast country—the land we love. Let the heart become pure, and practice purity in everything, and soon the whole nation will be affected by the healthful issues of life we send out in all directions. A good many farmers have too much tendency to complain and find fault, and where such men have influence in a neighborhood they create restlessness and not seldom discontent. So many of us are not satisfied well, and worry because we have not succeeded better in the pursuit after wealth and affluence. I am convinced that we, as a class of farmers and mechanics, do not read or think and study enough. Some men put in all their strength and time fretting and worrying while they work. Life is no real enjoyment to them. Their places where they reside are not happy homes, and I am sure the children and hired help do not like to stay long at such places, made wretched by discontentment and unthankfulness. Contentment with gratitude is wealth and happiness to the possessor.

Brown county has big crops of nearly all her products this season. All small fruits, including cherries, were never better nor as extensive in our county. Fall wheat and rye was nearly all splendid—a large yield, well filled. Spring wheat and oats for a while promised a prolific yield, but the former was cut short in most fields by chinch bugs and the latter by rust, and now much has been damaged in the shock by excessive rains. The hay crop and pasture is abundant and good. Corn from present indications will overtop all other crops; it is earing out in big ears and in the highest state of thrift. The apple and potato crop will also be good and abundant, with some peaches and pears thrown in. There will be no room to complain for those who deal in that kind of truck, only low prices and small profits. Still, from the large quantity of productions, a considerable cash return will be realized. In my opinion the people of Kansas have many reasons for which we ought to be thankful to the kind and bountiful Giver of all.

C. H. ISELEY.

Fairview, Brown Co., Kas.

### A Cloodhopper's Views on Protection.

EDITOR KANSAS FARMER:—One of your correspondents says that protection fosters trusts, and he attempts to make it appear that the Kansas farmers are oppressed by protection, or the tariff on foreign goods. I look at that question like this: The more foreign goods bought the more money crosses the ocean to foreign countries, and it has been proven that in times of low duties on foreign goods there has been a cash balance

for us to pay, and in times of high duties we have most always received a cash balance. We have sold United States bonds at 75 cents on the dollar at times when the duties were low and paid 10 per cent. interest for the same money, whereas, now our bonds are above par at 3½ and 4 per cent. interest. Now, then, which is the best policy—low duties, low credit, money drained out of the country, selling bonds for 75 cents, and paying 10 per cent. for money for our ordinary government expenses, or high duties, credit good, 3½ bonds selling above par, and a surplus in the treasury? If there is any one that thinks the millionaires are all getting rich in the manufacturing business, I say to them there is nothing to hinder them from organizing a trust and going into the business themselves. The tariff is for the purpose of building up business here, in brief that we may do our own work and save the money. Let us make our own blankets.

CLOODHOPPER.

### The Sugar Trust.

EDITOR KANSAS FARMER:—A friend handed me a copy of last week's KANSAS FARMER, and I was greatly surprised and pleased to read the letters of Messrs. Lee, Griffith, Grover, Brewer, Bohrer and J. B., and especially that part of your own remarks endorsing Mr. Grover's views on the "crime of robbing the masses for the benefit of the millionaires." It is very gratifying to me and every other struggling farmer in Kansas to read that you are in favor of free sugar, free salt, free lumber and free coal. But why not free binding twine, free implements and free clothing. Then our liberty would be true and complete. But what would become of the millionaires, their palaces, their equipages, and the political and financial power they wield, if the people were made free? Instead of concentrating the wealth of the people in a few hands, it would be diffused throughout the masses of the people who created it, thereby restoring justice to this trust-ridden generation.

Every farmer in Kansas ought to read the KANSAS FARMER of July 24. It should be sent as a sample copy to every farmer who does not now subscribe to it. I subscribed at once whenever I read it. Especially important to every farmer in Kansas are the following lines taken from the *Tribune* article which appears on page 8. After proving that the sugar trust has extorted \$97,500,000 from the people over and above the \$52,000,000 of duties levied by the government, and the natural price of the sugar besides, the *Tribune* goes on to say:

If the government could spare the revenues and put an end to the sugar combination by repealing the duties on sugar, it would simply be making a present to the people of a sum of money nearly twice as large as it now takes from them by levying the sugar duties.

Every farmer in Kansas knows that the government collects over \$100,000,000 more than it needs, therefore it "can spare the revenue and put an end to the sugar combination and make a present to the people" of the following amounts: The extortions of the trust, \$97,500,000; the duties on sugar, \$52,000,000; tribute to the Louisiana sugar men, \$15,000,000; interest and profit on sum paid for duties, \$5,500,000; total, \$170,000,000. This is the amount the masses of the people pay to a small number of very rich men, over and above the natural price of the sugar. This amounts to \$3 per capita, or \$4,500,000 for Kansas and \$100,000 for Osage county. This sum would pay half the expense of establishing four first-class sugar works in this county, and if the tariff was removed from metals and machinery, it would pay for a sugar factory in every township in the county.

It will be worth far more than a year's subscription to every farmer in Kansas to ponder and make his mind perfectly familiar with the above facts, especially the fact that they come from the *New York Tribune* and are endorsed by the KANSAS FARMER.

ROBT. S. PATERSON.

Olivet, Osage Co., Kas.

### Notes From Illinois.

EDITOR KANSAS FARMER:—When a small boy does well we think it right to give him a word of praise. Men, even old and wise men, are often no less encouraged and made glad by a kindly recognition of their efforts to do good. The agricultural and live stock paper generally are commending the action of Hon. J. M. Rusk in providing for the frequent issue of bulletins giving briefly, in plain words, the more useful and practical parts of the larger and more scientifically written reports of the Department of Agriculture.

In order that these documents may have a wide circulation and reach the parties most likely to appreciate them, the Honorable

Secretary of Agriculture has arranged for securing lists of the leading stock growers in each county. As a rule the live stock men pay most attention to one particular class of animals, to horses, or cattle, or sheep, or swine. The design is to group them according to the class in which they are most interested; selecting so far as possible one man for each class in each township, or at least in different part of the county.

Much valuable information gathered by the Department of Agriculture will thus be promptly placed in the hands of those especially interested in the matter presented in each particular report, and the several editors will circulate almost entirely among those to whom they will be of most value. A good scheme this, one which the farmers and live stock breeders will heartily approve.

The recent flurry among swine breeders in the matter of express rates has blown away. The old rates are restored and now the pigs can travel by express at merchandise or single rates.

The wheat crop in central Illinois is not yielding as well as last year, and the corn is not fulfilling the high promise of two weeks ago. Oats here average well, and the hay crop, red clover particularly, has been heavy; though owing to the frequent rains it has all been put up in the best condition. Stock hogs are more plentiful than usual, and hog cholera very scarce. A large number of letters addressed to veterinary surgeons and others throughout the state fall to discover any serious disease among hogs this summer. PHIL THURFTON. Springfield, Ill.

### New Era Exposition.

EDITOR KANSAS FARMER:—If ever a popular chord was struck in the rural world, the New Era Exposition Association has struck it in its just action in recognizing the labors of the farmer, and relegating the horse jockey to an obscure back seat at its coming exhibition. The messages of joy and gratitude now flowing in upon the President and Directors is extremely gratifying, for although they expected popular approval of their unprecedented action, they little anticipated the unanimous and emphatic endorsement which their act of long-delayed justice has called forth. From all over Uncle Sam's national farm the daily mails are bringing to the association letters of grateful approval, many of them couched in the most hilarious terms.

Space! Space! Space! Will eager exhibitors never cease crying for space? Every mall is flooded with applications, and the applications receive careful and immediate attention. Every indication points to the fact that in magnitude and magnificence the exhibit at the New Era Exposition of 1889 will far surpass anything of a like nature the world ever saw, the Centennial at Philadelphia alone excepted. The unprecedentedly liberal premiums offered for farm, garden and orchard products have roused the agriculturalists, and hither they will flock in almost countless numbers to lay their exhibits at the feet of the admiring country.

Every farmer in Kansas should send for a premium list and circulars giving all needed information, which the association promptly forwards to all applicants. Just think of it, rural friends! Did you ever before hear of a cash premium of \$500 being offered by any association for one dozen ears of corn! The other premiums are equal marvelous. Send for a list at once.

In addition to the mammoth exhibit which will please the eye, a series of rare entertainments has been provided for the amusement and instruction of the visitor. Among these special attractions may be mentioned balloon ascensions and parachute jumps; bicycle races by lady and gentlemen experts; Roman hippodrome races, in which each contestant will ride two bare-back horses, standing with one foot on each; broadsword contests by lady fencers; rifle and shot-gun shooting by champion shots; cowboy sports; Indian dances and ceremonies by warlike Apaches; battles between Indians and scouts and hunters, and many other features of a like entertaining nature. Prize drills, open to the militia infantry companies of the United States, will form a prominent feature of the amusement programme, and the storming and capture of a strong fort or earthwork by soldiers will prove an exciting spectacle.

This great Exposition will go down to history close in the wake of the great world's Centennial, and its memory will long stand a monument to the enterprise of the West and its energetic people. EXPOSITION.

St. Joseph, Mo., July 27.

Remember the FARMER is now \$1 a year.

Weather-Crop Bulletin

Of the Kansas weather service in co-operation with the United States Signal Service, for the week ending Saturday, August 2, 1889:

Precipitation.—The rainfall this week has been confined to the central counties of the eastern division, the east-central and extreme southwestern counties of the middle division including the southwest part of Ford, and in Cowley. An excess occurs in a belt extending from the northwest part of Lyon southeastward across the southwestern part of Osage, through Coffey into the western part of Anderson. Outside of these districts there has been an absence of rain, though at the close of the week there is good promise of rain in some of the western counties. Frost was reported in northern part of Russell on the 29th.

Temperature and Sunshine.—There has been a deficiency of these the past week. The 27th was the hot day of the week in the western division, where the maximum temperature ranged from 103 deg. to 110 deg. with a northerly wind; but a dense smoke spreading over the State on the 27th from the northwest and north (at times smelling strongly of burning wood) has formed a veil, entirely obscuring the sun the principal part of the time, while at such times the sun was visible it had the "appearance of a red ball," "of the moon," and "of being seen through smoked glass." The direct effect of this veil has been to lower the temperature, giving cool days and cold nights. The deficiency of sunshine was caused by smoke, not clouds, which generally settled near the ground, acting as a dry fog in obscuring objects one to three miles away.

Results.—The absence of rain in conjunction with the cool smoky weather has highly favored threshing, in consequence there were no idle machines, and much of the grain is now in the granary. The corn in the central and southern counties is well eared and three-fourths of it will mature without further rain, while farther north it is earing well, though the late planted will need more rain to mature a full crop. In the west the hot winds of the 26th and 28th from the south and the 27th (the hottest of the season) from the north wilted the corn in a measure and the protecting circle of cane around it more, but pumpkin, melon and other vines are not affected. In Trego, between the Saline and Smoky Hill, the drouth has practically brought farming to a standstill and badly dwarfed the crops. No damage by frost. Chinch bugs discouraged.

T. B. JENNINGS, Signal Corps, Ass't Director.

Gossip About Stock.

Mr. Ricks, of the firm of Ricks & Good-enough, Topeka, returned last week from a trip to England and France, where he purchased a large number of draft horses.

A new disease has been reported in a few herds near Lincoln, Neb., which baffles all efforts of relief. From the meager description at hand, it resembles Texas fever.

Breeders of thoroughbred stock who desire to get the benefit of our immense fair edition of extra copies, should send in their announcements and advertising orders as soon as possible.

W. T. Doyle, Maryville, Mo., desires to correspond with any Kansas who is needing first-class Poland-Chinas. He is a representative breeder, and any of our readers writing him should mention this paper.

Last week the Live Stock Sanitary Commission of Kansas inspected the Kansas City stock yards with special reference to separate accommodations for Texas and Southern cattle. They report everything in excellent shape and seem well satisfied with the arrangement.

Swine-raisers will notice the enlarged advertisement of Mains' herd of Poland-Chinas at Oskaloosa, Kas. He has an unusually select lot for sale of different sexes and strains and can please the purchaser. His stock has good growth and large make-up. It will be a good object lesson to visit his establishment.

Scott Fisher, of Holden, Mo., writes that he is selling pigs faster this year than any previous year since he has been in the business. Scott has fine hogs and deserves the patronage of all who want good hogs. He says he gets more calls from his advertisement in the KANSAS FARMER than all the others combined. He guarantees satisfaction. Write him and get reasonable prices.

J. A. Heagy, of Peabody, Marion county, bought of Thos. B. Wales, Secretary of the Holstein Association of Iowa, three years ago, a choice imported heifer and a bull of his own raising for \$450. They were the foundation of a choice herd of thirty odd

heifers, well marked and ranging from one-half to three-fourths bloods. He states as his experience that the Holstein is unsurpassed as a dairy cow, especially valuable for the large flow of milk, are exceedingly valuable factors in the raising of good calves and choice pigs.

The Board of Directors of the Standard Poland-China Record Association had a meeting at the Secretary's office at Maryville, Mo., last week. Aside from settlement with the Secretary and some minor detail business, the board authorized the issue of 100 additional shares of stock at \$15 per share, being an advance of \$5 per share. Volume 3 will be ready for delivery some time early in September next, and will be sold at \$4, with discount of \$1 to stockholders. The association is not only out of debt, but has funds sufficient to meet the expense of Volume 3 already provided, and is otherwise in a flourishing condition.

Lawrence Business College.



Among the many things of which Kansas are proud is the Lawrence Business College. The oldest institution of its kind in the State, and backed as it has been by brains and tireless energy, it has good reason to claim precedence over the newcomers in the field of business education.

If thought, earnest effort, and a liberal expenditure of money, aided by many years of experience, could make a perfect success, the Lawrence Business College will certainly be found to have a full measure of that success. In its organization we find the names of some of the best people of Lawrence, and in its faculty we find enrolled thoroughly experienced and tried specialists; no part of its work is given over into the hands of inexperienced teachers, and its pay-roll is probably the most liberal in the West, if not in our entire country. Its large faculty enables it to present an excellent course of study—not only present it on paper, but to successfully carry it out; nor is it a local school, for it gathers its 500 pupils from all parts of the country. That its work is eminently successful is attested by the uniform success achieved by its graduates, filling, as they do, positions of responsibility and profit throughout the West.

The business course, as laid down by this institution, is just what is needed by every young man and woman of the country, and especially would we commend it to farmers having children to educate. Taken all in all, we know of no better place to gain a complete, practical education for life than the Lawrence Business College.

The new catalogue is not only a thing of beauty, but is full of good things for every one interested in true education, and may be had by any one who will address the President or Secretary of the school.

Topeka Weather Report.

For week ending Saturday, August 3, 1889:

Table with columns: Date, Thermo. Max., Thermo. Min., Rainfall. Rows for July 28, 29, 30, 31 and August 1, 2, 3.

NEW ADVERTISEMENTS.

- List of advertisements: Benton, D. W. Cottage for sale. Broom Manufacturers Pur-chasing Agency. Broomcorn. Cofran, R. L. Western Foundry. Chicago Athenaeum. People's College. Fairchild, Geo. T. Pres. Agricultural College. Fetterman, J. C. Library. Litson, W. H., Jr. Nursery. Mains, James. Poland-China Swine. New Era Exposition. St. Joseph Exposition. Quinby, J. B. Stallion for sale. Searl, O. F. Jersey Cattle. Shelton, E. M. Berkshire Pigs. Spalding, J. F. Business College. Smiths Powell & Lamb. Syracuse Nursery. Trumbull, Reynolds & Dain Stacker. Allen.

Farmers' sons and daughters who hope to attend a good school this fall and winter should send for the catalogue of the Kansas State Agricultural College, Manhattan, Kas. No institution in the country has a better reputation for meeting the wants of farmers, or is better patronized by farmers.

Popular Scenic Summer Resorts.

A representative of the FARMER recently enjoyed an invigorating trip over the "Duluth Short Line" on the St. Paul & Duluth railroad, which runs between St. Paul, Minneapolis, and Duluth, West Superior and all points on Lake Superior. This route, the writer finds, is a very popular line on which are located the great scenic summer resorts of the North.

Tourists who desire to see the grandest scenery of the North as well as a visit to the best resorts for comfort, pleasure, recreation, boating, fishing and constant entertainment, will not fail to enjoy the unparalleled attractions of White Bear lake, Forest lake, Chicago lakes, Taylor's Falls, the Dalles of St. Croix and Lake Superior—all these inimitable resorts are easy of access with frequent trains at short distances. Detailed information promptly given on application to G. C. Gillfillan, Special Passenger Agent, St. Paul & Duluth R. R., St. Paul, Minn.

Patents.

Higdon & Higdon, Patent Lawyers, solicitors for American and foreign patents, office rooms 55 and 56 Hall Building, Kansas City, Mo., and room 29 St. Cloud Building, opposite United States Patent Office, Washington, D. C., report the following inventions patented for week ending July 30, 1889. [By applying to them at either office a printed copy of any patent here named can be obtained for 25 cents. Send for book of instructions, free of charge]:

- MISSOURI. Car-roof attachment—Wm. P. Settles, LaDue. Blank book—Robt. A. Wisenbarg, St. Louis. Heating-drum for fruit-driers—Nathaniel C. Clement, West Plains. Kitchen cabinet—George E. Miller, St. Louis. Furnace grate—Maximilian H. Moskovits, Kansas City. Fare-box attachment—Frederick B. Brownwell, St. Louis. Self-closing hydrant—Charles G. Ette, St. Louis. Folding cot—John G. Smith, St. Louis. Cable grip device—John T. Hodgins, St. Louis.

KANSAS.

- Burglar alarm—Thomas J. Gordon, Olathe. Motor—Evander B. Newcomb, Parsons. Corn or sorghum harvester—Joseph J. Sinsley, Eldorado. Feed-regulator for roller mills—Joseph W. Wilson, Brookville. Baling press—Wm. A. Laidlaw, Cherokee. Mail bag fastening—Seth M. Moore, Harper. Wire bale tie machine—Wm. A. Laidlaw, Cherokee. Band-cutter and feeder—Levi Close, Leona.

NEBRASKA.

- Hame o'ip—Peter Penner, McCook.

Low Rates to Puget Sound Points.

The St. Joseph & Grand Island and Union Pacific railroads, and Oregon Railway & Navigation Company, via Portland, form the new short line to Tacoma, Seattle, Olympia and Port Townsend, Washington Territory, and Victoria, British Columbia. The ticket rates to these points via the above line have just been lowered to \$50 first class, and \$35 second class, baggage checked through. For further information, call on any agent. E. McNEILL, General Manager. W. P. ROBINSON, JR., G. P. & T. A., St. Joseph, Mo.

The Farmer Recognized.

The National New Era Exposition will be held at St. Joseph, Mo., September 3 to October 5 inclusive, in honor of the creation of the Department of Agriculture and representation of that industry in the President's Cabinet. Sample premiums have been offered as follows: For the best dozen ears of corn, \$500; second, \$250; third, \$125; fourth, \$62.50; fifth, \$31.25; sixth, \$15; seventh, \$5. For the best general agricultural display by county or organization within a county, first, \$1,000; second, \$500; third, \$250. For the largest and best display of fruit by any State, county, local society or individual, first, \$500; second, \$250; third, \$125. For each best shock of winter wheat, spring wheat, oats, barley, rye and of cereals, to consist of fourteen sheaves of grain, uniformly two and a half feet high, first, \$25; second, \$15; third, \$10. For complete premium list, rules and regulations, railroad rates, and general information about the Exposition, address New Era Exposition, St. Joseph, Mo.

"Rally Round the Flag, Boys!"

The Grand Army Reunion to be held at Milwaukee (August 26 to 31, inclusive,) will, in many respects, be one of the most noteworthy of commemorative events. There will be no lack of distinguished speakers. But the most attractive features will be the "tie that binds" men who have fought, starved and bled for a sacred cause, the renewal of old-time associations, the rehearsal of war experiences, and the rekindling upon the altar of patriotism of undying devotion to "one flag and one country." Veterans and their friends will be pleased to know that from all stations on the Chicago, Rock Island & Pacific Railway, on its main lines and branches both east and west of the Missouri river, the price of tickets has been placed for this occasion at one fare for the round trip, while children under 12 and over 5 years of age will be charged only one-half this excursion rate, or one-quarter the regular fare for the round trip. Tickets will be for sale at all principal stations on the Rock Island Route, August 21 to August 28, 1889, inclusive, good for continuous passage to Milwaukee at any time between leaving dates, and good for return passage, leaving Milwaukee on any date between August 27 and September 5, 1889, inclusive. Holders of such tickets who desire to make side excursions from Milwaukee to points beyond, in any direction, can, by surrendering their return coupon tickets for safe keeping to the Joint Agent at Milwaukee, have them honored to original starting point where ticket was purchased (by proper indorsement), on any date not later than September 30, 1889.

TO MONTANA, OREGON AND WASHINGTON.

If you are going West, bear in mind the following facts: The Northern Pacific railroad owns and operates 987 miles, or 57 per cent. of the entire railroad mileage of Montana; spans the Territory with its main line from east to west; is the short line to Helena; the only Pullman and dining car line to Butte, and is the only line that reaches Miles City, Billings, Bozeman, Missoula, the Yellowstone National Park and, in fact, nine-tenths of the cities and points of interest in the Territory.

The Northern Pacific owns and operates 621 miles, or 521 miles, or 56 per cent. of the railroad mileage of Washington, its main line extending from the Idaho line via Spokane Falls, Cheney, Sprague, Yakima and Ellensburg, through the center of the Territory to Tacoma and Seattle, and from Tacoma to Portland. No other transcontinental through rail line reaches any portion of Washington Territory. Ten days stop over privileges are given on Northern Pacific second-class tickets at Spokane Falls and all points west, thus affording intending settlers an excellent opportunity to see the entire Territory without incurring the expense of paying local fares from point to point.

The Northern Pacific is the shortest route from St. Paul to Tacoma by 207 miles; to Seattle by 177 miles, and to Portland by 224 miles—time correspondingly shorter, varying from one to two days, according to destination. No other line from St. Paul or Minneapolis runs through passenger cars of any kind into Idaho, Oregon or Washington.

In addition to being the only rail line to Spokane Falls, Tacoma and Seattle, the Northern Pacific reaches all the principal points in northern Minnesota and Dakota, Montana, Idaho, Oregon and Washington. Bear in mind that the Northern Pacific and Shasta line is the famous scenic route to all points in California.

Send for illustrated pamphlet, maps and books giving you valuable information in reference to the country traversed by this great line from St. Paul, Minneapolis, Duluth and Ashland to Portland, Oregon, and Tacoma and Seattle, Washington Territory, and enclose stamps for the new 1889 Rand-McNally County Map of Washington Territory, printed in colors.

Address your nearest ticket agent, or CHAS. S. FEE, General Passenger and Ticket Agent, St. Paul, Minn.

A Summer Vacation.

At this time of year nearly every one begins to think of a summer vacation, or an outing of some kind for a little recreation. For those who desire to visit the summer resorts of the East—Niagara Falls, the White Mountains, Old Point Comfort, and numbers of others, there is no line which offers better facilities or lower rates than the Burlington Route. If the trip is to be by way of Chicago, the Hannibal & St. Joseph's fast vestibule train, "Eli," has no peer; leaving Kansas City in the evening, the traveler takes supper and breakfast on the dining car, arriving in Chicago in time for all connections east. If he desires to go by the way of St. Louis, he leaves Kansas City after supper and arrives in St. Louis for an early breakfast and eastern connections. Both of these trains are luxurious in every respect and equipped with Pullman Palace sleeping cars and free reclining chair cars.

For a short trip there is probably no more delightful summer resort than Spirit Lake, Iowa, or one of the other countless lakes in northern Iowa and Minnesota. Here again the traveler finds he cannot do better than take the morning train of the K. C. St. J. & C. B. R. R., leaving Kansas City at 11:15 a. m. and arriving in St. Paul and Minneapolis next morning for breakfast. From these points he can make direct connections for summer resorts in all directions. This train has one of Pullman's finest buffet sleeping cars through between Kansas City and St. Paul. This also is the train to take for Spirit Lake, but one change being made, and that early in the evening into a through sleeper to the Lake, arriving at destination at 7:15 in the morning. The above trains run daily.

Write for all information, tourist circulars, etc., to H. C. Orr, General Southwestern Passenger Agent, 900 Main street, Kansas City, of A. C. DAWES, General Passenger and Ticket Agent, St. JOSEPH, MO.

The Cool Resorts of the Northwest

Are most luxuriously and comfortably reached in the celebrated Vestibule Compartment Cars recently introduced on the popular Chicago, St. Paul & Kansas City railway. The press and public are agreed that these Compartment Sleeping Cars are unequalled by any sleeping cars in the world for luxury, comfort, privacy and perfect ventilation. The berths extend crosswise instead of lengthwise of the car, thereby avoiding the oscillatory and uncomfortable motion peculiar to the old-style sleeping car. One night's ride to or from St. Joseph, St. Paul and Minneapolis, or between any other points reached by this excellent railway, including Dubuque, Des Moines, and many other towns and cities in the States of Illinois, Iowa, Minnesota and Missouri, will convince any person of the superior merits of these cars. You can do a great deal worse, but you cannot do better than to travel over the Chicago, St. Paul & Kansas City railway.—Exchange.

The breeding, rearing and training of horses is a work that requires considerable intelligence, judgment, knowledge and experience, especially the last.

This much may be positively asserted, that a pure-bred bull, whatever his quality or breeding, proved he be sound, will prove infinitely safer than any grade bull, however meritorious.

Mr. F. Barteldes, proprietor of the Kansas Seed House, Lawrence, last week shipped two carloads of Kansas-grown blue grass seed to Europe. It is to be used in seeding the estate of Lord Lonsdale.

Choice Heifers and Bulls

For sale—A number of thoroughbred Short-horn heifers already bred, also a few choice bulls, on terms to suit purchasers. Address T. P. BABST, Dover, Kas.

## The Home Circle.

### To Correspondents.

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

### Who Seeks, Finds.

Take this for granted, once for all,  
There is neither chance nor fate;  
And to sit and wait till the skies shall fall,  
Is to wait as the foolish wait.

The laurel longed for you must earn,  
It is not of the things men lend;  
And though the lessons be hard to learn,  
The sooner the better, my friend.

That another's head can have your crown  
Is a judgment all untrue;  
And to pull this man or the other down  
Does not in the least raise you.

No light that through the ages shines  
To worthless work belongs;  
Men dig in thoughts as they dig in mines  
For the jewels of their songs.

Hold not the world as in debt to you  
When it credits you day by day  
With the light and air, with the sun and dew,  
And all that cheers your way.

And you in turn, as an honest man,  
Are bound, you will understand,  
To give back either the best you can,  
Or die and be out of hand.

How charming is divine philosophy!  
Not harsh and crabbed, as dull fools suppose,  
But musical as is Apollo's lute  
And a perpetual feast of nectared sweets,  
Where no crude surfeit reigns. —Milton.

Better trust all and be deceived  
And weep that trust and that deceiving,  
Than doubt one heart, that if believed,  
Had blest one's life with true believing.  
—Frances Ann Kemble

### KEEP COOL.

As we go about our summer work—which is trying enough, even away from the cook-stove—we have pleasant dreams of cooler weather to come. We look forward with happy expectancy to frost and snow. Sometimes we long for the leisure to while away the hot months in the dense shade of some forest; or if we are hydropathically inclined, there is a yearning in our hearts for a big bath-tub and plenty of time to spend in it reading literature relating to cool dips at some seaside resort. But here we are several miles from a forest, with only a wash-tub for a bath-room and not very much spare time; literature which tells of leisure and comfort by the sea is only an aggravation. There's the cellar—but our work doesn't keep us there one-tenth of the time.

That cellar! Can you always keep that cool? I have been experimenting upon some suggestions of a friend, and the cellar is cooler and dryer. It did have a bad habit of smelling musty. I opened the door and let the sun shine in as much as it could, but the dampness increased and moisture stood upon the fruit cans. Then I followed the suggestion—"Keep the door of the cellar closed during the hottest part of the day and only open it when the out-door air is cooler than the air of the cellar;" consequently the moisture has disappeared from the cans, and of course the cellar is cooler, and the milk is sweet for a greater length of time.

On a crisp winter day, I, too, throw up the blinds for more sunshine; now, I try to keep the sun from shining into the east windows in the morning, the west windows in the afternoon, "bottle up" all the cool night air possible and enjoy it during the day. Hot air will come through an open window just as readily as will cold air, and yet some people make no effort to close their windows against it. I remember the cool laboratory of an old professor where I used to go to recite; his orders were peremptory not to open the east windows, but to depend for our supply of fresh air upon the tree-shaded west door and windows. We recited there in the morning.

I am often reminded of the advice of a prominent writer upon home subjects with regard to the comfort of infants in warm weather—"Let the little one wear as little clothing as possible, nature's garb being sufficient with perhaps the addition of a blue ribbon for the neck." I have followed the advice with the exception of the blue ribbon, and how the baby did crow with the delight she felt in her freedom. This costume is appropriate for only the hottest hours of the day. I had a pretty, sensible, independent girl working for me this spring, and she went barefoot when it was warm enough. I respected the independence which prompted her to "keep cool," and I know from experience that to bare the hot, tired feet will cool the blood as will also dipping the wrists into cold water.

When I began by writing my subject I had in my mind the necessary achievement of keeping the mind cool and calm as well. If

you can keep yourself free from excitement and hurry and worry, you will find that the physical heat will have less effect upon you; *vice versa*, if you can keep your sitting-room cool, exempt from the hot breezes which seek admission through the windows, it will rest and calm you when you sit down a moment out of sight of the kitchen. Keep cool, and you will smile oftener. Don't let in much sunshine until several weeks from now.

PHOEBE PARMALEE.

### Discovery of an Assyrian Library 3,500 Years Old.

The Victoria Institute of London held its annual meeting at Adelphi Terrace on July 1. Prof. Sayce gave a description of discoveries recently made of things done during the time of the conquests of Amenophis III., from which the following is extracted:

"Of the tablets and inscriptions, he said: From them we learn that in the fifteenth century before our era,—a century before the Exodus,—active literary intercourse was going on throughout the civilized world of western Asia, between Babylon and Egypt and the smaller states of Palestine, of Syria, of Mesopotamia, and even of eastern Kappadokia. And this intercourse was carried on by means of the Babylonian language, and the complicated Babylonian script. This implies that, all over the civilized East, there were libraries and schools where the Babylonian language and literature were taught and learned. Babylonian appeared to have been as much the language of diplomacy and cultivated society as French has become in modern times, with the difference that, whereas it does not take long to learn to read French, the cuneiform syllabary required years of hard labor and attention before it could be acquired. We can now understand the meaning of the name of the Canaanitish city which stood near Hebron, and which seems to have been one of the most important of the towns of southern Palestine. Kijath-Sepher, or 'Book-town,' must have been the seat of a famous library, consisting mainly, if not altogether, as the Tel el-Armana tablets inform us, of clay tablets inscribed with cuneiform characters. As the city also bore the name of Debir, or 'Sanctuary,' we may conclude that the tablets were stored in its chief temple, like the libraries of Assyria and Babylonia. It may be that they are still lying under the soil, awaiting the day when the spade of the excavator shall restore them to the light. The literary influence of Babylonia in the age before the Israelitish conquest of Palestine explains the occurrence of the names of Babylonian deities among the inhabitants of the west. Moses died on the summit of Mount Nebo, which received its name from the Babylonian god of literature, to whom the great temple of Borsippa was dedicated; and Sinal itself, the mountain 'of Sin,' testifies to a worship of the Babylonian Moon-god, Sin, amid the solitudes of the desert. Moloch or Malk, was a Babylonian divinity like Rimmon, the Air-god, after whom more than one locality in Palestine was named, and Anat, the wife of ALU, the Sky-god, gave her name to the Palestinian Anah, as well as to Anathoth, the city of the 'Anat-goddesses.' In a careful reading of the tablets Canon Sayce came upon many ancient names and incidents known up to the present only from their appearance in the Bible. All these he carefully described, as well as several references in the tablets to the Hittites."

### Jewels That Are Glass.

Most of the world's beads are Venetian. In the island of Murano a thousand workmen are devoted to this branch. The first process is to draw the glass into tubes of the diameter of the proposed bead. For this purpose the glass house at Murano has a kind of rope-walk gallery 150 feet long. By gathering various colors from different pots and twisting them into one mass many combinations of colors are made. The tubes are carefully sorted by diameters, and chipped into fragments of uniform size. These pieces are stirred in a mixture of sand and ashes, which fills the holes, and prevents the sides from closing together when they are heated. They are next placed in a kind of frying-pan, and constantly stirred over a fire until the edges are rounded into a globular form. When cool they are shaken in one set of sieves until the ashes are separated, and in another series of sieves until they are perfectly sorted by sizes. Then they are threaded by children, tied in bundles, and exported to the ends of the earth. France has long produced the "pearl beads" which in the finer forms are close imitations of pearls. They are said to have been invented by M. Jaquin, in 1856. The common variety threaded for ornament is blown from glass tubes. An expert workman can blow 5,000

or 6,000 globules in a day. They are lined with powdered fish scales and filled with wax. It takes 16,000 fish to make a pound of the scaly essence of pearl. Until recently the heirs of Jaquin still carried on a large factory of these mock pearls. The best of them are blown irregular to counterfeit nature, some in pear shape, others like olives, and they easily pass for genuine.

Imitation gems formerly employed the chief attention of the highest artificers in glass. They are still the chief idea of ornamental glass in China. In the ancient and middle ages they circulated everywhere without much danger of discovery, and their formulas were held as precious secrets. Blancourt first published their compositions in 1696. Now they are common property; and with the growth of science in the past century an expert knowledge has become widely disseminated which easily detects the paste from the real jewel, particularly as the modern false stones are less successful copies than the old glass makers produced. More study is now given to artificial gems, which are true gems, being composed of the same materials as the genuine ones, but manufactured —Harper's Magazine.

### Physiology and Hygiene.

Water taken freely before meals, it is believed by many physicians, operates favorably by washing away the mucus secreted during the intervals of repose, and favors peristalsis of the whole alimentary tract. The membrane thus cleansed is in much better condition to receive food and convert it into soluble compounds.

The accumulation of mucus is specially well marked in the morning, when the gastric walls are covered with a thick, tenacious layer. Food entering the stomach at this time will become covered with this tenacious coating, which for a time protects it from the action of the gastric ferments, and so retards digestion. The tubular contracted stomach, with its puckered mucus lining and viscid contents, a normal condition in the morning before breakfast, is not suitable to receive food. A glass of water washes out the mucus, partly distends the stomach, wakes up peristalsis and prepares the alimentary canal for the morning meal. Exercise before partaking of a meal stimulates the circulation of the blood and facilitates the flow of blood through the vessels.

According to Dr. Leuf, who has made this subject a special study, cold water should be given to persons who have sufficient vitality to react, and hot water to the others. In chronic gastric catarrh it is extremely beneficial to drink warm or hot water before meals, and salt is said in most cases to add to the good effect produced.

### Infants' Dresses.

The clothing of a young infant should be selected with the greatest care. Not only months of fretting caused by the irritation of ill-fitting clothing, but the future health of the child may depend upon its clothing in infancy. All clothing for young children should be made of soft, fine material, with felled seams and simple trimmings, which will not irritate the flesh which is softer than the rose leaf. Lace is more suitable than Hamburg or needlework because the edge of even the softest needlework may chafe the skin. For the young infant under a month of age, a simple slip of plain white nainsook is the most suitable dress during the day, to be exchanged for a cambric night-slip at night. After the child is a month old it may be put into dresses with yoke, yet many mothers retain the slip dress till the child is three or four months old. One of the essentials is abundance of dresses, so that changes are at hand in case of emergency, besides the regular daily change of clothing given the child at its bath hour. English nainsook, which comes without a dressing, dimity and English long cloths are the chosen materials for infant slips. These dresses are usually one yard long from the neck and are finished in dainty wardrobes with a three-inch hem-stitched hem or hand-hemmed hem with a cluster of two or three fine hand run tucks above it, or with two groups of tucks separated by a row of feather-stitching. The little yoke dress measures usually a yard to a yard and a quarter long from the yoke, and the yoke measures three or four inches in depth. This little yoke is made of hem-stitching or tucks and feather-stitching or finished with solid embroidery or lace. The bottom of the yoke dress is much more elaborately finished than the edge of the slip and usually is finished with embroidery or hem-stitching and tucks, or tucks and insertion. There is considerable fancy now for a straight edge, either a hem-stitched hem or a hem with a wide insertion above it. A sash about four inches wide finished to

match the dress should accompany each slip and dress. Many of the more elaborate robe dresses, such as are used for christening or any dressy occasion, are made with yokes of real Valenciennes lace and trimmed on the bottom with two or three rows of the same lace four inches wide and a cluster of fine tucks above the rows of the Valenciennes. One such long dress is all an infant needs, but it is wise to provide at least six plain slips and six yoke dresses, or six more slips, as the mother chooses. When the child is six months old or so, according to the season of the year and the health of the child, it is put into short clothes. The long clothes are then usually cut down so that they barely cover the feet. If the child grows with ordinary rapidity, at the age of a year their skirts will just clear the floor when it stands and be suitable length when the baby walks. It is considered in the best taste to put nothing but white on an infant under a year old. No sprig of forget-me-not or rose-bud is used in color, even on the little wrapper, till the baby is older. The wrapper is a non-essential article of clothing, yet many mothers prefer it to the old-time blanket of flannel or Merino. Exceedingly simple wrappers are made of cheese-cloth tufted, but cannot be recommended from a utilitarian standpoint because they are difficult to launder.—Good Housekeeping.

### Matting.

One of the prettiest and most economical of floor coverings is straw matting, and that this is surely recognized by the majority of women is shown by its increased popularity. There is nothing will take its place for coolness and cleanliness during the warm weather, and it is much to be preferred, if only on the score of health, to any other floor covering for sleeping rooms. For the living rooms, more especially the dining-room, it is the most serviceable as well as most cleanly carpet that can be used for summer on account of its coolness, and for winter, when a heavy layer of carpet lining is placed under it, it is as comfortable as any one could desire. With pretty rugs scattered over it, the room has a pleasant, home-like appearance that is very attractive. It is cheap, and if care is taken when putting it down that little cleavers made especially for the purpose are used instead of the ordinary carpet tacks, it can be taken up at any time when cleaning house, cleaned and put down again, in less time and with less labor than a woolen carpet, as it does not require to be beaten, but washed while on the floor the same as usual.

In sweeping straw matting never use a broom, for it will tear the stands in a short while. A long-handled bristle brush, such as is used for oilcloth, is the nicest and will remove the dust best, for the soft bristles can go into crevices that a broom would miss. Always, when possible, brush the matting the lengthwise way of the grain, and the strands of straw will not wear and break as quickly as though brushed across.

To wash matting, take some warm water and soften it with ammonia, then with some good soap make a suds. Have two soft white flannel cloths, one for washing and the other for drying. Put one cloth into the suds, then wring it out until the water will not drip and rub the matting briskly, a small piece at a time, rinse the cloth, wring as dry as you can and wipe the carpet as dry as possible. Now with the dry flannel rub the spot well, taking up as much moisture as possible. Do not wet the matting much, for the dust is only on the surface, and the rubbing with a damp cloth will remove it. If the carpet is wet through it will discolor and it will never look as well as before.

Some clean matting by sprinkling bran or coarse Indian meal over it, then with a long-handled mop, with cloth wrung out of clean, warm water, rubbing the grain well all over the carpet, then leaving it until dry, when the grain is brushed off. This is claimed to be a thorough way of cleansing matting, but we prefer the damp cloth method minus the grain.

When white matting becomes yellow it may be brought back to its original color, first by washing off all dust, then going over the whole with a cloth wrung out of salt and water.

Once a month is often enough to wash a matting ordinarily used, and once in three months is frequently enough.—American Cultivator.

A high-spirited, mettlesome horse is generally an animal capable of enduring much hard usage, if it is only properly managed and controlled; but very often these animals are made more excitable than they really are by nature, by the bad judgment and fustiness of the driver.

A faded and discolored beard is untidy and a misfortune. It may be prevented by using Buckingham's Dye for the Whiskers, a never failing remedy.

The Young Folks.

The Old House.

In through the porch and up the silent stair;  
Little is changed, I know so well the ways;  
Here the dead came to meet me; it was there  
The dream was dreamed in unforgotten days.

But who is this that hurries on before,  
A fitting shade the brooding shades among?  
She turned—I saw her face—O God! it wore  
The face I used to wear when I was young!

I thought my spirit and my heart were tamed  
To deadness; dead the pangs that agonize.  
The old grief springs to choke me—I am  
shamed  
Before that little ghost with eager eyes.

Oh, turn away, let her not see, not know!  
How should she bear it, how should she un-  
derstand?  
Oh, hasten down the stairway, haste and go,  
And leave her dreaming in the silent land.

—The Spectator.

Burns' Lines to a Mouse.

Wee, sleekit, cow'rin', tim'rous beastie,  
O! what a panic 's in thy breastie!  
Thou need na start awa' sae hasty,  
Wi' bleeking brattle!  
I wad be laith tae rin' a' chace thee,  
Wi' maird'ring pattie!

I'm truly sorry man's dominion  
Has broken nature's social union,  
And justifies that ill opinion  
Which makes thee startle  
At me, thy poor earth-born companion,  
And fellow-mortal!

Commend but sparingly whom thou dost love,  
But less condemn whom thou dost not ap-  
prove;  
Thy friend, like flattery, too much praise doth  
wrong,  
And too sharp censure shows an evil tongue.  
—Sir J. Denham.

AN INDIAN HORSE-RACE.

From an article, written and illustrated by Frederic Remington, in the July Century we quote the following: "An elderly Indian of great dignity of presence steps into the ring, and with a graceful movement throws his long red blanket to the ground and drops on his knees before it, to receive the wagers of such as desire to make them. Men walk up and throw in silver dollars and every sort of personal property imaginable. A Winchester rifle and a large nickel-plated Colt's revolver were laid on the grass near me by a cowboy and an Indian, and then each goes away. It was a wager, and I thought they might well have confidence in their stakeholder—mother earth. Two ponies, tied head and head, were turned aside and left, horse against horse. No excitement seemed to prevail. Near me a little half Mexican Comanche boy began to disrobe until he stood clad only in his shirt and breech-cloth. His father addressed some whispered admonition and then led up a roan pony, prancing with impatience and evidently fully conscious of the work cut out for him that day. With a bound the little fellow landed on the neck of the pony only half way up; but his toes caught on the upper muscles of the pony's leg, and like a monkey he clambered up and was in his seat. The pony was as bare as a wild horse, except for the bridle, and loped away with his graceful little rider sitting like a rock. No, not like a rock, but limp and unconcerned, and as full of the motion of the horse as the horse's tail or any other part of him.

"A Kiowa, with long hair and great coarse face broke away from the group and galloped up the prairie until he stopped at what was to be the starting point, at the usual distance of 'two arrow flights and a pitch.' He was followed by half a dozen ponies at an easy lope, bearing their half-naked jockeys. The Indian spectators sat about on their ponies as unmoved in countenance as oysters, being natural gamblers, and stolid as such should be, while the cowboys whispered among themselves.

"That's the bay stallion there," said one man to me, as he pointed to a racer, 'and he's never been beaten. It's his walk-over, and I've got my gun up on him with an Injun.'

"It was to be a flying start, and they jockeyed a good deal and could not seem to get off. But presently a puff of smoke came from the rifle held aloft by the Kiowa starter, and his horse reared. The report reached us, and with a scurry the five ponies came away from the scratch, followed by a cloud of dust. The quilts flew through the air at every jump. The ponies bunched and pattered away at a nameless rate, for the quarter-race pony is quick of stride. Nearer and nearer they came, the riders lying low on their horse's necks, whipping and ki-yi-yi-ing. The dust in their wake swept backward and upward, and with a rush they came over the scratch, with the roan pony ahead, and my little Mexican fellow holding his quilt aloft, and his little eyes snapping with the nervous excitement of the great event. He had beaten the invincible bay

THOROUGH PRACTICAL CENTRAL NORMAL COLLEGE PROGRESSIVE ECONOMICAL

DEPARTMENTS:

Preparatory, Business, Teachers', Scientific, Classical, Penmanship, Oratorical, Musical, Fine Arts, Shorthand, Typewriting, and Preparatory Law.

CALENDAR--FALL TERM begins September 3; WINTER TERM, November 12, 1889.

EXPENSES.—Tuition, one term, \$10; two terms, \$19; three terms, \$27; four terms, \$35. No incidental fees. Nice rooms, well furnished and cared for, 40 cents to 50 cents per week, each; unfurnished, 20 to 40 cents. Only two in one room. Good board, \$1.75 to \$2.00. Tuition and board for one year, forty weeks, if paid in advance, \$100. This furnishes board at the same tables with the President and his family, and will be first-class in every respect. Self-boarding and room, \$1.00 to \$1.50 per week. Books can be rented at 10 cents per term. All books can be procured here at greatly reduced rates, in many cases little more than one-half the regular retail price. Students should bring all their books with them. We guarantee everything as represented, and pay all above rates given if accommodations are not furnished. Information cheerfully and freely given. Address

WM. STRYKER, PRESIDENT, GREAT BEND, KANSAS.

A FEW REASONS FOR ATTENDING THE CENTRAL NORMAL COLLEGE.

1. Students can enter at any time, without examination, and find classes to suit them. The courses of study are elective.
2. Students are under the best Christian influence, and in one of the healthiest localities in the West.
3. The best methods of teaching; enthusiasm and love of work aroused in every exercise.
4. We have a large and well-arranged building, and are well supplied with library, apparatus, cabinets, etc.
5. Ladies and gentlemen, rich and poor, received on equal terms, and made to feel at home.
6. An excellent course in reading, penmanship, vocal music, shorthand, drawing, or German, free to all students.
7. Its growth has been the most rapid, and it is now the largest school in central or western Kansas.
8. Strong classes in all regular courses; a training class for teachers.
9. We have the LONGEST, MOST THOROUGH and COMPLETE courses of study of any normal school in the State.
10. A large faculty. None but able, experienced teachers employed. A specialist in charge of each department.
11. Students can remain as long as they wish, and return at any time, taking up the work where they left it, and complete a course.
12. Our business, shorthand and typewriting courses are as thorough and practical as any, and at much less expense.
13. The class of pupils is the very best. All the associations and influences of the school are of an elevating character. Merit is the only watchword. A better and higher education for all is the true motto.

stallion, the pride of this Comanche tribe, and as he rode back to his father his face had the settled calm which nothing could penetrate, and which befitted his dignity as a young runner."

Error and Mistake.

It is generally supposed that "error" and "mistake" mean the same thing; but that is a mistake. The difference is important, and is illustrated thus in *Golden Days*: If you have a thermometer which is faulty, and it reads 50 deg. when it should read 48 deg., and you put it down at 50 deg., that is an error; but if the instrument is correct, and you put it down 50 deg. when it reads 48 deg., that is a mistake. An inanimate object may be in error, but it cannot make a mistake; a sentient being may make a mistake, but cannot be in error.

Uncle Dick.

The largest locomotive engine ever constructed, prior to 1880, was that made at the Baldwin locomotive works during the early part of 1879. It was turned out ready for use April 10 of that year and named "Uncle Dick." Uncle Dick weighed 130,000 pounds; was sixty feet from headlight to the rear end of the tender. He is now at work on the Atchison, Topeka & Santa Fe road.

As before stated Uncle Dick was the most powerful locomotive in the world prior to 1880. During the year 1883 the same works that constructed Uncle Dick turned out several locomotives for the Northern Pacific railroad, each weighing 180,000 pounds.

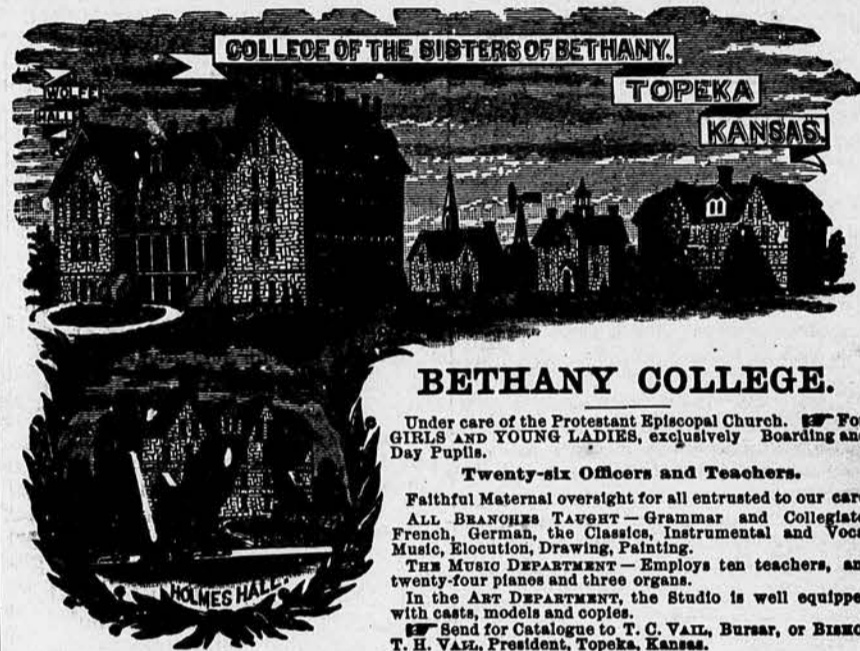
During the same year, as if to overshadow the Baldwin works, the Central Pacific company caused to be built at their shops in Sacramento, Cal., what are really the largest locomotives in the world. They have eight drive-wheels each, the cylinders are nineteen inches in diameter and the stroke three feet. These engines weigh, exclusive of tender, 123,000 pounds, and with the tender, as Uncle Dick's weight was given, they weigh almost 190,000 pounds, said to be about twenty-three tons above Baldwin's best efforts.

How Rockets are Made.

Rockets are made for three purposes: for signaling, for decorations or celebrations, or as projectiles in war. For signals, the charge consists of twelve parts of niter, two of sulphur, and three of charcoal. The ornamental or decorative rocket is the one we see used on the Fourth of July, and the composition of which it is made comprises 122 parts of mealed or finely pulverized powder, eighty of niter, forty of sulphur, and forty of cast-iron filings.

The main part of the rocket is a case, made by rolling stout paper, covered on one side with paste, around a wooden form, at the same time applying considerable pressure. The end is then "choked," or brought tightly together with twine.

The paper case thus made is next placed in a copper mold, so that a conical copper spindle will pass up through the choke, and the composition is then poured in and packed by blows of a mallet on a copper drift or packing-tool made to fit over the spindle. The top of the case is now closed with a layer of moist plaster of Paris one inch thick, perforated with a small hole for the passage of the flame to the upper part, or "pot." The pot is formed of another paper cylinder slipped over and pasted to the top



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PROF. O. W. MILLER, PRESIDENT.

of the case and surmounted by a paper cone filled with tow. The "decorations" are placed in the pot and are scattered through the air when the flame, having passed through the aperture of the plaster, reaches a small charge of mealed powder, placed in the pot. The stick is a piece of pine wood, tapering, and about nine times the length of the rocket. It is to guide the rocket in its flight. The decorations in the pot may be "stars," "serpents," "marrons," "gold-rain," and so on. "Marrons" are small paper shells filled with grained powder and pinned with quick-match. "Serpents" are small cases about one half inch in diameter in which is a composition of three parts niter, three sulphur, sixteen mealed powder, one-half charcoal. This composition is driven in the case, the top of which is closed by plaster of Paris, having a small aperture through which passes a piece of quick-match.—Lieut. W. R. Hamilton, U S A., in St. Nicholas.

Where the Big Corliss Engine Is.

The famous Corliss engine, the largest ever constructed, and the one used to drive the machinery in the great hall at the Centennial of 1876, is now in the shops of the Pullman Car company at Kensington, near Chicago, Ill.

I have practiced law forty years, have been engaged in over 4,000 criminal cases, and on mature reflection I am convinced that more than 3,000 of them originated in drunkenness alone, and that a great portion of the remainder could be traced either directly or indirectly to this source. In seventy-six cases of homicide in which I either prosecuted or defended, fifty-nine were the direct and immediate results of the maddening influence of intoxicating drink, while in a number of the remainder the primordial cause was this prolific source of misdemeanor and murder.—A. B. Richmond.

FOR A DISORDERED LIVER try BEECHAM'S PILLS.

BOYS.

The fall term of Pond's Business College, Topeka, Kas., will begin September 2. Those who are thinking of "where to go" will please remember that Mr. Pond will teach in the school every day this year. He will deduct your railroad fare, both ways, from the scholarship, to any distance not exceeding 150 miles. We have known this man and his school for years. He makes money himself and teaches his students to do the same, and we cannot praise either him or his school too highly. Parents cannot send to a better school.

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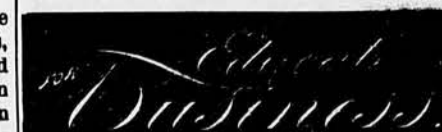
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Every advertiser will receive a copy of the paper free during the publication of the advertisement.  
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The KANSAS FARMER will be sent on trial thirteen weeks to new subscribers for 25 cents.

Mr. Adamson reports his sugar factory in rapid process of completion. They have 800 acres of cane to work and it is all good.

Prof. Snow's weather report for July shows that only four Julys of the past twenty-two years were cooler than this—(in 1869, 1880, 1882, and 1887.) The rainfall was 1.99 above the average.

The Live Stock Sanitary Commission, after due examination at the Kansas City stock yards, concludes that all cattle believed to be dangerous or infectious are being unloaded at chutes especially constructed for that purpose, and used for no other stock, and are held in pens separated from the main yards by the Kansas river. That the yards are being kept in excellent sanitary condition. There was no evidence to show that these cattle would transmit the fever, it being well understood that native or half-bred cattle do not convey the disease.

## Experiment Stations and the Farmers.

Those who take an interest in the work of the Agricultural Experiment Stations will be pleased to know that the report of the second annual convention of the representatives of American Agricultural colleges and Experiment Stations held at Knoxville, is now ready for distribution. The Department of Agriculture undertook to report the meeting and publish the proceedings, and this work, edited by Prof. A. W. Harris, of the office of Experiment Stations of the Department, and Major H. E. Alvord, of the Executive Committee of the association, is now completed. The principal topics of discussion at the meeting in question included "The best method of reaching farmers," "How the Department could most effectually co-operate in the work of the Stations," "The best style of bulletins and how to distribute them," "The composition of the boards of control and its influence on the work," "Co-operation between the Stations," etc., etc. The discussions on these topics and the resolutions they gave rise to are fully reported. They indicate incontestably an earnest desire among the gentlemen in charge of the colleges and Stations to do the best possible work. This publication is issued as Miscellaneous Bulletin No. 1 of the office of Experiment Stations of the Department of Agriculture, W. O. Atwater, Director, and is published by authority of Secretary Rusk.

## KANSAS FARMER AND THE ALLIANCE.

On Wednesday, the 14th day of the present month, the Farmers' Alliance and Co-operative Union of Kansas will meet at Newton, and among the matters to be discussed and determined at that meeting is the providing for a State organ—a periodical publication to represent the interests of the alliance.

The KANSAS FARMER desires to submit a few thoughts on that subject for the consideration of all persons concerned.

In view of the fact that the KANSAS FARMER is an established paper of wide circulation and growing influence, and that its policy has been in the past, is now, and will be in the future in accord with the principles and objects of the Alliance, its columns could be used by the order with mutual advantages.

In conversations had by members of the Alliance with the business and editorial managers of this paper, we have given the best counsel we could, and have said that in view of the large expense of fitting up a good newspaper establishment, and because of the largely experimental character of such a proceeding, it would be better for the Alliance to adopt as its medium of expression and communication the columns of a paper already established, one whose opinions and policy are known, whose soundness on important public questions has been tested, than to experiment in a new field when nothing is to be gained.

We do not wish to be understood as bidding, in a commercial sense, for appointment as a State organ, we are not competing with anybody or any paper, and do not wish to be so considered. Being already and for a long time engaged in the same work which the Alliance is now taking hold of, indeed, having aided largely in making the way clear, we feel that by uniting the influence of the Alliance with that of the KANSAS FARMER more good can be done in the same time than by starting a new paper whose face and name will be strange and therefore may be disappointing.

The Alliance is welcome to our columns for the publication of all its official announcements and reports, all its official communications of every character, whether in the nature of addresses, arguments or counsel, these to be furnished by authorized persons. We expect to continue our "Alliance Department" anyway, to occupy a column or a page or more as may be necessary to keep our readers posted on Alliance news and matter, and that space, if filled by officers of the Alliance regularly would be all that could be done in a new paper; and in addition to all that, the KANSAS FARMER has other interesting departments filled with matter pertaining to every phase of agriculture from the field to the forum. Briefly, here is a good paper in sympathy with you, and its columns, to a reasonable extent, are at your service free of charge, and you may edit the "Alliance Department" or we will do it, just as you prefer. If you adopt our suggestion, you are at no expense as an order, and will not be called upon to make assessments on members to support a new paper. The needed work will be done and members may subscribe or not as they see fit. The work will be no additional expense to us, and we will cheerfully do it "for the good of the order," receiving satisfactory compensation in whatever widening of our circulation which may follow.

## MR. GROVER IS AT WORK.

In Mr. Grover's "answer No. 1," published July 24th ult., he promised that, as soon as he could "get the necessary prices current and other information," he would undertake the answering of the questions which the KANSAS FARMER had submitted to him. Since that time we have received three long communications from him, each one containing something more or less re-

sponsive to part of the questions, but in very small proportion and so much mixed up with other and irrelevant matter that we do not care to sift it before he has concluded his writing. In his last letter, dated August 3d, he says he finds difficulty in procuring such authorities as he wishes, but refers to several articles not included in our questions, and then goes on to argue protection on general principles.

In our comments on Mr. Grover's answer No. 1 we began by saying he "mistakes the object of our questioning," that "what we want is a plain, truthful answer to every one of the questions submitted, or a reason for not answering them; the object is not to invite controversy," etc. We have no intention of allowing Mr. Grover any more latitude than we offered him in the beginning. He saw proper to state as his belief that we are sailing under false colors, that we are obtaining money under false pretences, that we are frauds, cheats and swindlers, and believing that he would avail himself of every opportunity to repeat his belief in that respect among our readers and friends, we thought it well to publish his letter with comments, and then allow him to reply. He did reply; his letter and inclosure were printed in full in our issue of July 24th ult., under the head—"Mr. Grover's answer No. 1." That is all of that character of matter we will publish from Mr. Grover's pen until we have given him an opportunity to inform himself further concerning the correctness of our tariff opinions and to revise his estimate of the moral character of the men who are in control of the KANSAS FARMER.

We submitted to Mr. Grover twelve questions, and he promised to answer them. He shall have room in our editorial columns to answer those questions, taking them up in their order; but we want only what was asked for—answers, not a mass of words in no way responsive. Take the questions in their order—No. 1, No. 2, No. 3, and so on, answering one at a time, so that the reader will understand both question and answer in their proper connection. That is what we want, and Mr. Grover will save himself and us a good deal of labor if he will remember it and govern himself accordingly.

Further, we do not wish to limit Mr. Grover as to space, nor to dictate the manner of his answering, but want answers and only answers. If it requires the use of a column to answer each question separately, he shall have a column for it; but we expect him to answer or to give a reason for not answering.

## KANSAS CROPS NOW.

By courtesy of Mr. Secretary Mohler, of the State Board of Agriculture, we have a comprehensive statement written out by his own hand, showing the condition of the crops in Kansas at this time. Of the 106 counties of the State 105 are represented in the statement. Summarised, the reports show that as to wheat, while it was damaged some by rust and rain, threshers report a better yield than was expected, the excess, probably fully equaling the loss from causes above mentioned. A good deal of oats is lost, wholly lost, on account of rains keeping it wet continuously so that it could not be housed, stacked or threshed. Still, the aggregate oats crop will be very large.

Corn is better than it ever was any year in our history at this time in the season, and much if not most of it is now out of danger of drouth and frost.

Corn, potatoes and grass are above average 5 to 10 per cent., and no crop is put below 95 per cent., "compared with full average condition," and the crops mentioned in the reports are corn, barley, potatoes, millet, sorghum, broom-corn, flax, tame grass, prairie grass. As to fruits, they are given at—grapes 100 per cent., peaches 92, apples 61.

Chinch bugs, the Secretary says, "seem to be annihilated."

## RUMORS OF WHEAT FAILURE.

There are conflicting reports concerning the amount of the wheat crop for 1889. So many interests are at work on one side or the other that it is not always safe to rely on the first and unofficial reports. It is now reported that the Russian crop is "almost a failure," and a storm destroyed a good deal of wheat in Austria. The crop is reported short in southern Hungary and in places lying along the Danube.

From these and other rumors it is argued that the foreign demand for American wheat will be much larger than usual. We do not see much in this to encourage our farmers. A shortage in Russia would have but little effect on American farmers, for Russia exports more or less wheat every year. Austro-Hungary usually has a surplus of wheat, and the farmers along the Danube would not buy a bushel of foreign wheat unless it were offered cheaper than it ever was, for they are economical livers. The total average demand of all Europe for foreign wheat is about 200,000,000 bushels, and they supply nearly half of it themselves. The United States has been furnishing from 65 per cent in 1880 to 35 per cent. in 1885, and not exceeding 40 per cent. since of the net demand. The average supply of Europe during all the years since and including 1880, is nearly equal to the demand. Total imports of wheat in European countries (average for the years 1880 to 1888 inclusive) 203,212,579 bushels, while the exports were 88,004,189 bushels, the total average yield being 1,196,709,023, and the total yield for the whole world is about 2,000,000,000 bushels. It will be seen that the average European demand for wheat is the difference between 203,212,579 bushels and 88,004,189 bushels, which is 115,208,390, and a large part of that is supplied by British India, the Australasian colonies, Argentine Republic and Canada, leaving for the United States to supply the rest, which amounts to about 20 per cent. of our total crop.

The sources of supply are so many that it would require a very large shortage in the crops of other nations to affect prices seriously in this country. We confess that the outlook for "dollar wheat" in Kansas is not encouraging. But whatever the price may be we have large quantities of wheat, and that is a good thing. A crop of a hundred bushels of wheat at 50 cents a bushel is better than fifty bushels at a dollar a bushel, because, after taking out seed and feed, there is more left to sell. It is that which we sell, and not that which we eat or sow that brings money. A bushel of dollar wheat does not yield more bread or seed more ground than a bushel of as good wheat at half the price.

## The "Trust" Fever is Spreading

A New York dispatch of July 31, ult., tells of an English syndicate that is trying to corner the enamelled and patent leather trade of all America. It would perhaps be better to say syndicate, for there are at least three aggregations of English capital trying to capture this lucrative industry. Thus far none of them have succeeded to any notable extent, but the schemes have been in progress only a short time.

On the same day a "ballet girl trust" was announced thus: English capitalists are now looking at the theatrical business of America as well as the beer business with the view of investing their sovereigns and controlling players and play houses. The intelligence that a New York manager had been offered \$700,000 for a two-thirds interest in his house was hardly received from the wires when a novel and extensive trust was discovered within the walls of Chicago itself. W. H. Morton, of the Columbia theater, is the agent of the British company. Associated with him and interested with Mr. Morton in the venture are David Henderson, of the Chicago opera house, and Horace M. Vicker. It has become so difficult to



secure a good ballet that such a scheme was absolutely necessary, to say nothing of the profits as a business enterprise. Mr. Morton has already secured 3,000 girls for his trust. Some of them will receive a regular salary, others half pay, but all will be at Mr. Morton's beck and call. These gentlemen were seen and frankly admitted the existence of such a scheme.

"The idea to form a ballet girls' trust," said Mr. Morton, "first occurred to me last month. I enlisted Henderson and McVicker in my cause and last week an English syndicate purchased a three-fourths interest in our enterprise."

Manager Henderson, of the Chicago opera house, said: "Yes, we are interested in the ballet girl trust. Mr. McVicker and myself are silent partners, while Mr. Morton is the prime mover. We intend to control all the ballet girls in the West, and hereafter managers will have to hire their Amazonian beauties from us."

Northern-Grown Seed Corn.

The following letter is worth reading:

EDITOR KANSAS FARMER:—I lived about thirty years in the Mississippi valley, in the State of Illinois, and saw some great crops of corn raised in that space of time. I think the present prospect for a large crop of corn here in Anderson county, Kansas, equals, or goes ahead of any I saw raised in Illinois.

But I started to say that I have observed the growth of the corn this season and find that corn from seed brought from the north does not grow to stalks so much as corn that is acclimated here, but sends out more shoots and ears better and matures earlier. Corn after it is acclimated to this country grows a very large stock and is late in sending out the young corn shoots, not so many of them, and is later in maturing. The late rains we have had has caused the latter to send out the young ears in profusion, and the prospect for a very large crop of corn is very flattering indeed. At present our corn fields is a perfect picture. And it is a good investment to bring seed corn from the north frequently, as an early corn is preferable, as the late corn is more apt to be caught with the drouths we generally have in August. JAMES BELL.

Garnett, Kas., July 29, 1889.

A Division Reunion

A reunion will be held at Milwaukee during the national encampment of the "Blue Star Division" of the Atlanta campaign, third division, twentieth army corps. All comrades who were at any time members of the 22d and 26th Wisconsin; 70th, 33d and 85th Indiana; 19th Michigan; 102d, 105th and 129th Illinois; 55th, 73d and 79th Ohio; 136th New York; 33d Massachusetts; and 20th Connecticut, are fraternally invited to replace your blue stars on hat or breast, and assemble at Milwaukee on the 27th of August.

More blue stars will scintillate there than have shone together since the grand review at Washington. Comrade President Harrison, if he attends the encampment, will be one of us. Our splendid division commander, Major-General Daniel Butterfield, will probably be there. Our well beloved brigade commanders, Generals Coburn, Dustin, Cogswell and others will be with us if health permits. General Sherman, General Slocum, and General Howard will be there to greet their old command.

Place for camp and hall for meetings will be provided by the encampment committee.

E. BLOODGOOD, Col. 22d Wis.

F. C. WINCKLER, Col. 26th Wis.

Prof. Wm. E. Anderson, corner Seventh and Prairie Sts., Milwaukee, Wis., Local Secretary. Harvey Reid, General Secretary, Maquoketa, Iowa.

A Cure for Hoven.

Hoven is bloating from eating too much green food, as clover or sorghum. The following remedies are contributed by a correspondent of Hoard's Dairyman: In a mild case, two or three tablespoonfuls of common baking soda dissolved in one quart of water, given in two doses; or two ounces of ammonia in one quart of water, given at two doses. Administer in a long-necked bottle. A more certain remedy is a mixture of equal parts of first dilution of aconite and nuxvomica, twenty to

thirty drops—according to size of animal and severity of attack—every half hour a dose, put it in a small vial with a couple of tablespoonfuls of water. If the disease has progressed so far as to appear to be past help, the following has never failed to cure: Two ounces of smoking tobacco, dried in the oven and rubbed up fine, stir it, with three tablespoonfuls of soda, into one quart of molasses, give at one dose. Rub the bowels thoroughly, as it is a great aid in starting the gas from the stomach.

Irrigation on Hardpan Soils.

We find an interesting article recently on this subject in the California Home and Farm. It will doubtless be interesting to some if not all our readers:

"There is nothing in the world, perhaps, wherein theory and practice are found to differ so widely as in matters that pertain to the domain of agriculture and horticulture. In pursuing the current literature of the day one continually meets with statements of what should or should not be done, such statements being too often based solely upon theoretical premises and written by men with no practical experience in such matters. Thus, in an article on hardpan soils now being copied quite extensively in the press of California, the statement is made that such soils need much less irrigation than where there is no hardpan, or where the soil is loose and sandy. It is claimed that land with hardpan close to the surface retains moisture well, prevents undue surface evaporation, and also prevents the water from seeping into the depths of the earth beyond the reach of plant roots.

"Now, while this is good in theory, it by no means is proven in actual experience. Without going into the reasons why it should be so, men of large experience in irrigation claim that hardpan soils require much more water to retain vegetation in a thrifty condition than do the deep or even sandy soils. There are localities in the oldest irrigation districts of California where demonstrations of the statement can be seen. Such a locality, for instance, is the famous Redland colony in San Bernardino county. This colony is partly located on a mesa made of the famous red soil found in all the foothill region of the State. The hardpan comes close to the surface—so close that in many places it is necessary to blast in making excavations of two or three feet in depth. On the other hand, at least half the colony is situated on an open, sandy plain. The soil is deep, indeed of an unknown depth, but very light. The early settlers supposed that this sandy soil would require far more water than the heavy, red soil of the mesa.

"Yet exactly the opposite has proven true, and now it is universally conceded that the rich hardpan soil requires more irrigation than the deep, sandy soils. It is held that there are two reasons for this. The water, when applied to the hardpan soil is kept from sinking to any great depth and remains close to the surface, where evaporation is more constant and as a consequence more moisture is needed to supply plant life. The hardpan, too, prevents the attraction of moisture from beneath, and surface supplies must be wholly relied upon. In the sandy soils, on the other hand, the moisture penetrates to a good depth and surface evaporation is lessened, while at the same time moisture is drawn from below by capillary attractions. These explanations are based upon facts that actually exist, rather than upon theory, and as such they are worth any number of theoretical suppositions.

"Another queer bit of 'information' concerning hardpan soil is also floating about, which merits passing notice. This information is to the effect that it is dangerous to irrigate soils that have an underlying base of hardpan. The reason is asserted to be that much of the water used for irrigation contains alkaline salts in solution. These salts

are precipitated upon the hardpan and remain there, and in the course of a few years it is claimed that the entire surface soil becomes so charged with alkali as to be practically valueless. This is a very pretty theory, and might be of value had it the slightest foundation in fact, which it has not. There have been thousands of acres of alkali and salt lands reclaimed in this State by irrigation, but it is very doubtful if an acre of hardpan soil can be shown which has been saturated with alkali by the use of water."

Encouragement from the Grange.

Mr. Mortimer Whitehead, of the Lecturer's department of the National Grange, sends us a circular letter, which, on account of the importance of the subject treated, we give entire, as follows:

It has come to be quite generally accepted as a truth, not only by farmers themselves but by others who are watching the course of events in our country, that those engaged in our most important industry—agriculture, must have organization in order to compete with, or even hold their own with, other callings already combined for their special good. That farmers feel the necessity in the matter is shown by the several organizations now found in different parts of the country, all of which, except the Grange, having come into existence in a comparatively short time. In one place the "Club" is all the go, in another the "Alliance," then again it is the "Wheel," the "Protective Association," the "Sheepfold," the "Homesteaders," together with several others too young and small as yet to have name or fame. No doubt they are doing some good, either one is better than no organization. All are steps in the right direction, for farmers must, as said the words on one of the earlier flags of our forefathers in the days of the revolution, with a picture of a snake out into thirteen pieces, representing the thirteen States—"UNITE OR DIE."

Quite frequently of late we notice in the agricultural and other papers of the country, well-meant advice that the various farmer organizations, including the grange, should unite in one great national organization for better and more effective work. There is one, and only one, national farmers' organization in existence to-day, and that is the grange. All others are confined to localities, to States or sections, and therefore must be local in their work and results. There is not a State or Territory in our country (and it applies also to the provinces of Canada) in which a farmer cannot join the grange if he so desires, and can thus receive the benefits not only of his local but of its important national work. Everything that can possibly be accomplished in any other new or local organization can be had in the grange, and far more besides. The grange, in its complete local, State and national organization, opens wide its doors and bids welcome not only the farmer, but his wife and children.

All the various farmers' organizations that have come into existence within a few years past are as yet but experiments, while the grange has stood the test of nearly twenty-three years of existence. It has never yet been fairly "weighed in the balance and found wanting." It would have much to risk and little to gain by a union with others still in their experimental stage. If the principles of the grange, properly applied, will not relieve agriculture of its burdens and give farmers true "protection," none of the others so far started ever can.

Grange growth and progress during twenty-three years has been, as in nature, one of evolution, or of childhood to mature manhood. It has passed the dangers of early life. It has, it may be said, proven "all things," and holds fast to "that which is good." It has survived its years of wanderings in the wilderness, and is on the borders, if not already entered into the promised land.

To the interested looker-on it is all too plainly to be seen that some other farmers' organizations that are following on are making the same mistakes, committing the same errors, attempting the same wild schemes that enthusiasts, dreamers, politicians and others loaded down our good grange steed, and, thus handicapped, almost caused it to lose the race.

All of the other farmers' organizations in the country have good in them. Some are modeled very closely after the grange and its "declaration of purposes," and the nearer they come to the grange plan the more chances of success and good to their membership. The grange system has had its "trial trip," it has stood the test, it is "approved" and "accepted." Other plans and schemes are but experiments. "A bird in the hand is worth two in the bush." The grange "points with pride" to its "record."

The original motto of the National Grange over twenty years ago was *Via Unita Fortior*—"strength united is stronger." There is some strength, some power in all the other farmers' organizations of the country; even each individual farmer has strength. Emerson says, "Concentration is the secret of strength in politics, in war, in trade; in short, in all management of human affairs." Farmers ought to all unite their strength in one great national organization, such as found to-day only in the grange. It does not antagonize any other farmers' organization. Its members, while tolerating the faith of others, still cling closely to their own, because they believe it best. The grange is moving onward. Its present year is one of the brightest in its history. To some its advancement seems slow, but "still it moves."

"'Tis weary watching wave on wave, And yet the tide heaves onward; We bid it, like corals, grave on grave, But pave a pathway seaward. We are beaten back in many a fray, But newer strength we borrow; And where the vanguard rests to-day, The rear shall camp to-morrow."

There is something more required in breeding horses successfully than in breeding almost any other kind of stock. A very little difference in the conformation, style and make-up of the horse decides whether it will sell for \$500 or for \$100, and the wisdom and experience of the breeder are shown in the preponderance of the higher-priced animals which he grows.

Inquiries Answered.

SALT.—A correspondent wants the result of experience of farmers who have used salt as a fertilizer.

GRAMMA GRASS.—The grass sent us by a Greeley county friend and referred to last week as gramma grass, was correctly named by us, as the following from Prof. E. A. Popenoe shows: "The grass sent for identification is one of the gramma grasses of the plains, this particular species being known to the botanist as *Bouteloua oligotachya*. It is often miscalled buffalo grass, though the true buffalo grass is quite distinct. The gramma grass is distributed over the entire plains region from our northern to our southern boundary, and is undoubtedly one of the most valuable grasses for grazing that are native to that region. The present species stands tramping well, and where closely grazed is likely to grow bunchy or in little flat circular pads close to the ground, the foliage being crisp and short. It is highly nutritious and cures well on the ground, comparing favorably as winter pasture with the true buffalo grass with which it is often associated. The samples sent by your correspondent measure twenty inches in height, and are about as tall as this grass grows even under the most favorable circumstances."

BLAKE'S PREDICTIONS.—We are asked if Prof. Blake's predictions have been verified. We answer yes and no. Yes as to the main features of his work and no as to some of the details. The drouth in the Northern wheat region was not as severe as he predicted, and there has been more rain in Kansas than he predicted, but in both cases the principal features—dry weather in one, wet weather in the other, were correct. He does not himself profess to believe the absolute correctness of his estimates in detail. He has no doubt about the main features for large areas, as dryness or wetness, high or low temperature, stormy or calm atmosphere, and these for large tracts of country; but as to how high the mercury will be in a given county on a particular day, or whether it will rain there or be dry, he is not yet far enough along to foretell. His method is altogether mathematical, and when his figures show a certain condition in a certain large area at a certain time, he believes that absolutely, as firmly as he would believe the figures he uses in calculating the time of an eclipse. From this leading fact he estimates the force of probable disturbing influences as well as he can with the light he has, and works out details in the line of experiment rather than as facts in which he has absolute faith. The KANSAS FARMER has no sort of interest in Prof. Blake and his predictions further than this: We believe he is in the way of correct knowledge on this subject; that he is now doing a great deal of good, and that if people will be patient and not expect too much of him, he will yet be of immeasurable value to the agricultural world. He is an educated man, not a crank, nor a quesser nor a dreamer. Many individual persons may not be benefited by his predictions, while great masses scattered over large areas will be, because there are local exceptions and he cannot yet tell where the exceptions will operate. We cannot vouch for the correctness of his work in general or in detail, but have faith as above given. We do, however, have perfect confidence in the man's personal character, his integrity and his learning.

Kansas Fairs for 1889.

- Kansas State Fair, Topeka, September 16-21.
- Anderson county, Garnett, August 27-30.
- Atchison District, Atchison, September 10-16.
- Barber county, Kiowa, October 15-17.
- Bourbon county, Fort Scott, October 1-4.
- Brown county, Hlawatha, September 3-7.
- Chase county, Cottonwood Falls, September 4-6.
- Cheyenne county, St. Francis, September 25-28.
- Clay county, Clay Center, October 1-4.
- Coffey county, Burlington, September 9-13.
- Cowley county, Winfield, September 8-7.
- Crawford county, Girard, September 24-27.
- Elk county, (Cane Valley Fair Association), Grenola, September 11-13.
- Ellis county, Hays City, September 10-13.
- Ford county, Ford, September 18-20.
- Franklin county, Ottawa, September 3-7.
- Graham county, Hill City, September 26-28.
- Greeley county, Horace, September 24-26.
- Harvey county, Newton, September 10-13.
- Jefferson county, Ocala, September 10-13.
- Jewell county, Mankato, September 10-13.
- Lincoln county, Lincoln, September 25-27.
- LaCygne District, LaCygne, September 24-27.
- Linn county, Mound City, September 16-20.
- Linn county, Pleasanton, September 10-13.
- Marion county, Marion, October 2-4.
- Morris county, Council Grove, September 23-26.
- Mitchell county, Cawker City, September 24-27.
- Nemaha county, Seneca, September 17-20.
- Neosho county, Erie, October 1-3.
- Neosho county, Burlingame, September 16-18.
- Ottawa county, Minneapolis, October 9-11.
- Osborne county, Osborne, September 17-20.
- Plattville fair, Plattville, September 24-27.
- Phillips county, Phillipsburg, September 17-20.
- Rawlins county, Atwood, October 1-3.
- Reno county, Hutchinson, September 17-20.
- Rush county, LaCrosse, September 18-20.
- Saline county, Salina, September 24-27.
- Sheridan county, Hoxie, September 26-27.
- Sherman county, Goodland, September 10-13.
- Smith county, Smith Center, September 18-21.
- Sumner county, Wellington, August 27-30.
- Woodson county, Neosho Falls, August 20-23.

## Horticulture.

### EDUCATING THE AGRICULTURAL KID.

Paper read before the Missouri Valley Horticultural Association, July —, 1889, prepared by Edwin Taylor, potato specialist, Wyandotte county, Kas.

The farmer is solicitous for his son. One of his ambitions is that "the boy" may be able to take his stand among men as their equal; another, that he may remain on the paternal acres and succeed to the paternal calling. I will not now stop to consider how it has come about that so large a proportion of the men who have become eminent in every department of life have been farmers' sons; but it is certain that the country born who have gone to the front in trade, railroading, politics, the professions, and in war, is far beyond their numerical proportion of those so engaged. The farmer has reason to be proud of the way his boys carry themselves in the battle of life; they are the peers of the best; the only trouble is with the field of their engagement, that they leave the "old man" to fight it out in his fields—alone. Each succeeding year sees the bright and capable farm boys, with greater and greater unanimity going to town. The sorrowing granger, gazing upon that filial and yet unfilial procession, bethinking him of what sins of omission or commission at his hands may have brought this result to pass, finds it all accounted for in the current comment of press and rostrum as a result of defects in the education of these boys. Let us briefly examine a few of these alleged defects.

Firstly, then, it is charged that the boys were not taught that farming is an "independent" way of life. To this I reply that they have had a long opportunity for observing its character, that nothing escapes their notice, and that they know a good thing when they see it; and I conclude that from their standpoint the independence of average farming is found chiefly in the optic of the cheerful spectator who regards it from a distance. In my estimation the boys are right.

Again, it is averred that these farm boys should have been educated together, by themselves, in an atmosphere favorable to rural occupations, where the rustic environment would have been dense enough to keep their wandering eyes from falling upon the forbidden sweets of the outside world. To which, I submit that nothing is surer to set a young fellow to looking than telling him not to look; and that the goddess of Agriculture can never retain among her followers the youth whose loss she most deprecates until she rivals in attractiveness her sister divinities of the shop, market or mill, and, instead of shunning, courts comparison with them. Another fault found with the farm boy's education is that hard work has not been sandwiched between his books; that having once lost the callouses off his palms he is preposterously shy about working them on again. It seems to me, however, quite out of place to send a boy to school to learn to work, whether that work is following a plow or standing behind a counter. When it comes to teaching a boy to work, his own father is a far better instructor than the schoolmaster, and his own store or corn field the best place for the lessons. It is not toil, however, against which the young man shakes the country dust from his feet in protest; it is toil without hope. He naturally takes as typical the average of the farming about him; in it as in a mirror sees his own future reflected, and rightfully revolts at its uneventful round of petty activities, without scope, the very diversity of which interrupts effort and forestalls satisfactory accomplishment. Let his mentors once set him a pattern of farming that pays, on a scale that is worth an ambitious man's while and on lines that are expandable in capable hands, and his cityward tendency will be stopped instanter. But now comes a

delicate-handed school of critics who are shocked that a young man should insist upon a style of farming that pays as a condition of his farming at all; who teach that the farmer should live above the sordid motives of other men and recompense himself for a slim or minus bank account by contemplating the beauty of nature and listening to that varied language in which she speaks to her own. This means that the farmer should be a poet. Most farmers are not poets. They don't farm it out of consideration for their soulful surroundings, nor for their health, nor, primarily, for their morals; they farm it purely and simply because farming is their business.

To the frequent criticism upon the education of the farm boy that he is allowed to grow up among the wonders and beauties of animate and inanimate nature without having the wonder or the beauty taught to him, I answer that the naturalists are nearly as rare as the facts and that except as steps to graduation, natural history and the natural sciences appeal to a select, but, in point of numbers, insignificant minority, whether on farms or off them. The opportunities for studying nature are open to all men who have the will to find a way to it; but the inspiration for its study and appreciation of its beauty are not born of contact with nature itself. Love of nature, instead of being natural, is in the last degree artificial. It is one of the rarest and finest fruits of culture. The foundation of culture, however, is leisure; and leisure is not as intimate with farming as some less active lines of life. Accordingly, we find that the naturalists, like the poets, are not rural but urban; in this county (Wyandotte), for instance, the leading geologist is a minister; entomologist, wife of a lawyer; botanist, a teacher; ornithologist, a dealer in real estate. But whether pursued as a fad or as an enthusiasm, the natural sciences touch farming at but few points and are tributary to its success mainly in the indirect way of mental development, like history, mathematics, philosophy, language and mnemonics.

But the most frequent criticism upon the prevailing education of young farmers is that it fails in taking sufficient note of the "science of agriculture." I take it that the commonest sense in which the term "agricultural science" is used is synonymous with agricultural chemistry; for example, two of our best known farm papers lately called upon their young men, in the name of "science," to acquaint themselves with the chemical composition of stock foods, if they would go up higher as stock-feeders. In my estimation such advice is pestiferous nonsense; what it recommends is an advanced type of rainbow-chasing that must end in inevitable disappointment and disgust. I was a very small boy when I began reading my father's farm papers, and the subject of farm chemistry was worked quite as hard then as now, and I am free to say that if the farmers of these United States had been compelled to follow the advice given, in my time, in the name of agricultural chemistry, it would have been a national calamity. During this time, however, our agriculture has undergone great changes, in some respects has made great advances, but I have failed to find the mark of chemistry upon them. Not to wear you out with illustrations, let me call your attention to the road by which the improvements have come, in one or two instances—where chemistry has been conspicuous by its absence. The production of meat is one of our most important national industries and a leading department of farming. What has agricultural chemistry done for it? It has filled many pages with tabulated statements of the components of all sorts of grain and forage and of the farm animals themselves, so that we really have a literature of curious information respecting the chemistry of stock and stock food, which I venture

to say Prof. Dry-as-dust, himself, would not value at \$1 if he should be confronted with the problem of feeding a hundred head of cattle and forced to take his salary out of the profits. But while all this time chemistry has been baying the moon, the farmers are themselves effecting a revolution in the business of cattle-feeding, comparable, says the Hon. Hiram Smith, of Wisconsin, to the revolution effected in manufactures and transportation by the steam engine, through the gradual adoption of a simple and inexpensive method of preserving succulent forage unimpaired in palatableness or value, for winter use, by the process called ensilage. Another of our most important agricultural resources is the dairy product. In less than thirty years dairying has undergone changes that amount really to metamorphosis, whereby butter and cheese-making have risen from a laborious drudgery to the dignity of a manufacture, with all that the word implies. Has this great advance been on chemical lines? Not at all; no more chemical than psychological. It has been in the way of improved manipulation merely. I refer, of course, to the factory system of making butter and cheese, which starting with Jesse Williams' happy expedient, when short of help, in war time, of making up the milk from his own and his son's dairy in one process instead of two, has since been developed to the extent of working the milk of over 400 dairies in one process, with steam power substituted for woman's power—the poor, tired, housewife at last emancipated from the thralldom of the hand churn and butter ladle.

In deciding questions of fertility particularly, the popular notion is that chemistry is indispensable to correct conclusions. As opposed to this view I want to quote a few sentences from authors who are authorities:

I defy the cleverest chemist to tell beforehand what will be the yield of any land submitted to him and what manure ought to be used.—Vile, *Artificial Manures*, page 53.

There is awful humbug about many parts of the so-called science of agriculture.—Peter Henderson, in *How the Farm Pays*, page 12.

The composition of a plant affords in practical agriculture and on ordinary cultivated soils no sort of indication as to the composition of the manure it is best to apply to the crop.—Joseph Harris, *Talks on Manures*, page 322.

The science of agriculture truly defined, however, I understand to mean a knowledge of the principles, resting in any of the cognate sciences, which underlie farm operations and phenomena, upon which they depend and by which they can be explained. It opens up a field of inquiry, a field of great extent and interest, into which I would bespeak for every farm boy the utmost reach of excursion warranted by his circumstances and tastes. But I would urge him to it by no false promises or promises resting upon the misconception that the science of agriculture has suggested the operations of its art, or will be of important, direct service to him in the business of farming. The business of farming concerns itself with the adaptation of agricultural processes to individual uses; and, as a business, is as unconcerned with the disquisitions of agricultural philosophy as with the doctrine of the correlation and conservation of force. Both the production of food and the assimilation of it rest in the last analysis upon the unpenetrated mysteries, and to my mind it is as unreasonable to impose the why's of growth, as an essential thing, upon the business of farming as it would be to impose the why's of nutrition upon the business of running a restaurant. How many of you gentlemen before me, who have to do with hot-beds in their season, can tell me *why* the hot-bed heats up? Is it owing to a ferment in the material used or is it owing to bacteria? So far as I know this question has never been decided; but suppose the point were fixed to-morrow, would it help any of us a cent's worth? When it comes to making money out of a hot-bed the *why* slips into the background, while the how and the what next loom up into startling importance with the novice.

We hear far too much about the science of agriculture, and as much too little about the business of farming. Hotspur wanted a starling taught to speak the hated name of "Mortimer" constantly to the king. I have wished for a starling to din in the ear of every young country man, poising himself for a cityward flight, that *farming is a business, amenable to the laws of business*; and where followed with intelligence and routine and concentration and system, one that suffers nothing from comparison with other businesses, using equal capital.

Instead of danger that we will de-grade our calling into a mere trade, as has been suggested this summer, the real danger and actual loss is that we will not sufficiently magnify the *trade* part of our vocation and rise to its requirements. The cause of agriculture is at this moment suffering far more from our not knowing the plain requirements of its trade, than from ignorance of its abstruse causes. While industrial calling presents so wide a field of inquiry as ours, there is no other in which so little has been settled upon as absolute truth. Why, we have been raising wheat ever since the "beginning," and so fundamental a point as whether wheat needs a deep or shallow seed-bed is still a controverted question. The potato is our leading vegetable, but there is no agreement among us as to the right way of cutting the seed, nor the depth of planting, nor the requisites of storing the crop. Our failures are not parallel with our ignorance of principles, but with our ignorance of details, or our inattention to them.

Dr. Hexamer said a long time ago that the farmer's weakest point was discovered when he went to market. If I were given the task of educating a juvenile farmer, I would endeavor to strengthen that point, by constitutional treatment in the first place, and by practice in the second. Most farmers don't have enough selling to do to get their hand in. Not to enter tediously into courses of study, I would have him taught, by way of "constitutional treatment," whatever was deemed best fitted to make him "wide between the eyes" and help him to observe, to apprehend and comprehend, pursuing his studies in the same classes with the prospective merchants, manufacturers, civil engineers, soldiers and lawyers, till the boys separated to their respective technical schools. My boy should then take a course in a school of farming, where academical training and industrial instruction were not mixed and mutually vitiated, where the extraordinary possibilities of such an institution, compared with other professional schools, were recognized. The law schools, for instance, deals with fictions, in the cases before its moot courts; the business school graduate figures glibly in college currency, but gets readily rattled in small transactions of sure-enough business; the military student takes his lessons in sham battles for want of real war; but my supposititious school of farming will deal with the actual teaching, the real thing, not in sample patterns, but by object lessons of life-size and "get-there" quality. Not neglecting tentative investigations or experimental work in many directions, its great feature will be that of illustrating by performing the most approved processes of wresting from nature and the expense account a profit on production. Each great department of this school will have at its head a professor who is a master hand in his specialty, for which he will be equipped with the best and latest machines and appliances and given a field of operations large enough to handle them in advantageously—where such men as Evans, of Missouri, fill the chair of orcharding; Kern, of Westport, that of market gardening; where Terry, of Ohio, and Holcomb, of Iowa, are Professors of Irish and sweet potato-ology, respectively; where B. F. Smith is Professor of berries; where the wheat and corn Professors are eminent wheat and corn-growers, and the cattle,

sheep, hog and dairy chairs are occupied by men of such accomplishments that in their respective lines no men can accomplish more. To that kind of an agricultural college I will not only send the boy for a full course, I will go for a term or two myself.

In that institution, also, much attention will be paid to the strategy and tactics of farming. By farm strategy I mean a plan of campaign in which the farm undertakings are figured out in advance with reference to the farmer's resources, analogous to strategy in war. By tactics I mean the handling of the forces—men and horses—in the field. Most of our farming is comparable to mob fighting in its want of forecast and pre-arrangement. Peter Henderson names John Riley, a man who could barely read and write, as the most successful New York gardener of his knowledge, and gives, as the secret of his success, his way of working all his men together at one thing at a time, "in solid phalanx."

Carrying the military figure further, I shall try to show the boy that there cannot be much of a general unless there is a good deal of a war, whether in town or country; that the attractiveness of the city centers around its industrial commanders, and that farming, in our time, also presents its opportunities for command. "The old order changeth, giving place to new." When John Johnson, of Geneva, restricted himself to wheat and sheep and thereby achieved the success which makes his name a household word in agriculture, he set an example of the possibilities in judiciously concentrated farming that was a revelation in his time, and is still an inspiration in ours. In our time, accordingly, the most noticeable feature of our agriculture is its tendency and drift toward just such restrictions of adaptability as John Johnson practiced. It is a tendency that adds both pleasure and profit to farming. The farmer who narrows the scope of his inquiries to a point that he can master finds hope rising in his breast, and by divorcing himself from side issues that hamper him, or main issues that on any account are followed against the stream, is like a rider that casts off his weights. It is a tendency that gives life and interest to individual effort on the one hand, and on the other is fully abreast with the spirit of the age in being adapted to organized and consolidated interests, in which respect it finds ample illustration within the limits of this society in the Olden fruit company, the Edwardsville apple syndicate, and the Wellhouse orchards. As a parting injunction to the youth, I shall caution him in selecting his specialty not to carry the idea of restriction to the point of running it into the ground; to choose a line suited to his soil, his markets, his transportation, his capital and his tastes, and then having chosen to make haste slowly and to persevere.

From Evergreen Fruit Farm--Berries and Turnips.

EDITOR KANSAS FARMER:—The berry crop is about harvested, and we are happy; not from having harvested a large crop, for, owing to the freeze the 1st of May and the leaf-roller, it was lighter than usual; but the experience acquired was of a nature to make one thankful. The day we finished picking strawberries the Turner raspberry was ripe, and by the time the Turner was gone others came in order till blackberries arrived; thus it is we have fresh fruits every day the summer through.

This year brought out the secrets of berry culture more clearly than any former year. Owing to frosts in May, when the pollen on strawberry blossoms was ready to shed, many varieties did not get the pistils of their blossoms properly fertilized. The Sharpless strawberry this season was much more prolific where strong staminate varieties grew near it. The stamens on the Sharpless are so short and bear so little

pollen that it is not best to plant it alone; but when planted in connection with the Kansas berry, a variety which I have originated, it still leads the van in productiveness. The Kansas berry is ahead of any other variety when planted alone. It has the longest stamens and is the most perfectly formed berry on trial. It is wonderfully prolific in plant growth, and requires fewer plants to the acre than any other variety. Plants set four feet apart each way will mat the ground all over in one season on rich soil, if thorough cultivation is given.

The Turner, a red thornless raspberry, is the captain of all red sorts. It stands the winters without protection, has made a four-foot growth the driest summers, and is the sweetest, juiciest red raspberry that I have.

The Early Harvest blackberry ripens before the raspberries are gone; it is hardy and should be cultivated on every farm.

Next comes the Kittatinny, the king of blackberries, the best specimens of which were one and a half inches in length, and three-fourths of an inch in diameter. This berry was so well relished that many citizens of Frankfort ordered three and four boxes of every picking "till they are gone." Others bought them by the crate for canning. Epicures from every quarter say the Kittatinny is the prettiest and best berry that grows.

Now, July 22, is the best time to sow turnips. Oats stubble, freshly fallowed, is the place to raise sweet, crispy turnips. There should be fifty bushels stored away for every milch cow next winter when good butter brings 20 or 25 cents per pound. I find glory as well as gain in seeing good cows in warm stables, when mercury gets down to the pinching point, devour brittle turnips during the interim between feeds of oats and hay.

T. F. SPROUL.  
Frankfort, Marshall Co., Kas.

### The Busy Bee.

Tools of the Apiary.

EDITOR KANSAS FARMER:—Probably no other invention that has been given to bee-keepers has done so much to simplify the work of the apiary and at the same time increase the field of honey as the



HONEY EXTRACTOR.

Our illustration will give a very good idea of its structure and the mode of operation. The frame work at the side of the can fits inside and is made to turn around by the gearing attached to the crank above. The honey is thrown out against the side of the can and runs down into the receptacle below. The cut shows a large size Muth extractor, which will hold seventy-five pounds of honey below the basket. The caps should all be trimmed off from the comb before it is put into the extractor, and for this a tool called a



HONEY KNIFE

is used. This is a knife made for this special purpose, of the best of steel. It

should be made very sharp before attempting to use it.

Dipping the clean knife in warm water or drawing it across a meat rind will prevent it from sticking to the combs. One will soon learn how to cut the cappings very thin and with but little trouble.

Of course an extractor cannot be used unless the hive contains movable frames. It should be at least two stories high, and the combs should be left in the hive until the honey is capped over and thoroughly cured.

Another modern invention that will be found of great utility, where one wants to work for extracted honey, is what is known as the queen-excluding honey board. The best ones are made of zinc, with openings just large enough to admit the bees, but the queen cannot pass through them. This is put on the hive, over the first set of combs, and compels the queen to confine her operations to the brood chamber, or lower story. The combs above this will then contain honey only, and many find it a benefit to "tier up," as it is called, and make the hive three or more stories high before extracting is begun.

The extractor shown in our illustration costs \$11. Others may be had for less money. Some sell as low as \$6 but they have no receptacle below the basket, and are not considered as good by experienced bee-keepers. The honey knife costs from 60 cents to \$1.50, owing to the quality. The queen-excluding honey board adds about 25 cents to the price of a hive.

The advantages of the extractor are that the same combs can be used from year to year, thus allowing the bees to store more rapidly in them. They are ready for use when the honey flow comes, and the entire colony, or the field workers, can devote all of their time to gathering honey. Then again swarming can be controlled and a very much larger yield of honey can be secured with much less labor.

The dangers of an extractor are, first, that the inexperienced may rob their bees too closely, and thus leave them to starve in the winter. Or, they may be in a hurry to get the honey out and extract it before it is well cured, thus getting an inferior quality of honey. However, by using a little judgment, both of these may be guarded against. Some claim that honey can be as well cured out of a hive as in it, but this has not been our experience.

At some future time we will have something to say about the marketing and care of honey.

EMERSON T. ABBOTT.  
St. Joseph, Mo.



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UNION PACIFIC OVERLAND ROUTE Tickets ON SALE TO ALL PRINCIPAL POINTS EAST, WEST, NORTH and SOUTH —AT— TOPEKA, KANSAS. F. A. LEWIS, City Ticket Agent, 526 Kansas Avenue. J. F. GWIN, Depot Agent.

SAFE INVESTMENT FARRAND & VOTEY ORGANS DETROIT, MICH. U.S.A.

### Affiance Department.

This Department of the KANSAS FARMER has been designated as the authorized official State organ of the Farmers' Alliance and Co-operative Union for the State of Kansas.

#### FARMERS OF McPHERSON--HARVEST HOME PIONIO.

Last Saturday farmers of McPherson county, under direction and management of the County Alliance, assembled at the county seat in numbers running into thousands.

It was, in every particular, a decided success. The weather was all that could have been hoped for, being cool and pleasant.

By actual count there were 205 wagons and carriages and ninety-five horse-back riders, composed of ladies and gentlemen, in the procession, and it took forty minutes for it to pass a given point.

Following we give a detailed account of this, the largest procession ever witnessed in McPherson county.

The procession came down Main street at 11 o'clock, headed by a steam threshing outfit, with band on separator.

Following this was a handsomely decorated float with young ladies representing the States. This we are informed belonged to Jackson.

Jackson Alliance came next with floats and banners. Then came Sharps Creek, with cavalry, Excelsior and Lookout.

Liberty Farmers' Alliance was headed by a float loaded with people. Good Hope and Pleasant Alliances had some fine floats. One of them carried a banner "Who gets the 10 per cent" and "We're uns from the country."

Next came a band and the Santa Fe Alliance with several floats. One represented the old-fashioned style of making soap. This was followed by a load of hay.

The Victory goat was the next in line and headed the Victory Alliance. They had four floats.

Centennial Alliance had the old reliable army mule and several floats. One had an organ, another a choir of young people, another a shoe shop.

Then came the old-fashioned farm outfit of flail, fanning mill and rude blacksmith shop.

Lone Tree and a detachment of cavalry followed this.

Conway Alliance was headed by a band and a handsome float.

Hayes Alliance had a float with young women.

Mount Zion had one of the prettiest floats, in the line young ladies and boys, the whole gotten up with excellent taste.

The alliances from the southwest were not all in time and must be added to these.

One remarkable feature of the procession was the liberal display of United States flags.

Of the exercises we can only give a sketch to-day. A fuller report will follow Monday.

On arrival at the park prayer was offered by Rev. J. F. Hill.

The address of welcome was delivered

by S. W. Scott, an excellent address, brief, to the point and well delivered.

The monument was then built by the ladies of the alliance. This was constructed of sheaves of wheat and was respectfully dedicated to the old settlers of McPherson county.

Dinner followed and from the sample furnished us it was a dinner greatly to be enjoyed and long to be remembered.

Then followed an address by County Lecturer Vittum and a song by Centennial Alliance.

Judge Peffer, editor of the KANSAS FARMER, was then introduced to the audience, and at the hour of going to press was still speaking.

[Here ends the Saturday Republican's report. Monday's issue contains the rest, but we could not get it in time to transfer to our columns.]

The address was listened to by the largest assemblage of farmers ever met at one time and place in Kansas on any similar occasion. The speaker treated the general subject of agricultural depression, suggesting as causes for it the lowering of values of nearly everything which the farmer deals in except dollars and debts, and this through agencies of combinations of money and brains in other great industries, competition of farmers in other countries, public extravagance, unequal and unjust taxation, high interest rates and private waste.

Hon. A. W. Smith, of McPherson, an energetic and able member of the alliance, followed in a neighborly talk of half an hour, reviewing the early history of the county, concluding with some excellent advice to farmers concerning legislation and their duty to inform their representatives what they want.

Two very interesting addresses were then delivered, one by a young man representing "the boy of 1779," the other by a bright, fine looking lad, representing "the boy of 1889." The latter, by his frank, modest manner and ready, clear, distinct enunciation, impressed the people favorably. If he will apply himself to study and practice and grow up industriously and honorably, the future will treat him kindly. We do not remember his name nor that of his 110-year-old predecessor.

Good music was furnished by a brass band, by a martial band in which ladies beat the drums, and by social clubs and choirs.

The alliance had an ice cream stand on the ground where people enjoyed themselves without money and without price. There were various amusements provided, all by the alliance, so that everything on the ground was under control of the committee. The result was the very best order prevailed, the speakers were not annoyed and the people could hear.

The writer of this has attended many public demonstrations in his time, and he is free to say that among them all, he never saw a better behaved or a better dressed mixed assembly than this.

#### Alliance Picnic.

Farmers in the vicinity of Half Day school house, about eight miles north of Topeka, with their wives and children, enjoyed a social time last Thursday. They met in the grove near the school house, and after a considerable number of new names had been placed on the roll of membership, among them those of several ladies, the program was completed by prayers, speeches, and songs, with instrumental music. The editor of the KANSAS FARMER, by special invitation, was present and took part in the proceedings. Addresses were delivered by several persons, and a young lady recited an amusing sketch. Expecting a report from the Secretary, we took no notes, which accounts for the brevity of this and the absence of names.

#### Farmers' Alliance Notes.

An alliance will soon be organized near Eudora, in Douglas county, and an effort made to have the county organized speedily.

Let every item of important alliance matter be forwarded promptly to this paper and it will do much for the growth of the organization.

We will send the KANSAS FARMER free one year to any member of the alliance that will send us a dozen "trial" three months subscribers at 25 cents each.

The farmers' institute and alliance organization are making arrangements to hold a county fair in McPherson county, and with such a combination a fair would be a creditable success.

We give space in this department for a communication from the Lecturer of the National Grange, a very worthy farmers' organization, on the subject of the unification of farmers' organizations.

Don't forget the State Alliance meeting to be held at Newton, Kas., beginning at 10 a. m., Wednesday, August 14. Important matters are to be considered. Every sub-alliance should be represented by competent persons.

The District Alliance met at Meriden on Saturday, August 3, with a good attendance considering the extremely busy season. Several important questions were discussed, and the body adjourned to meet at the same place on Saturday, August 24, at 10 a. m.

The American Cultivator says that members of the farmers' alliance in South Carolina and Georgia have contracted for 4,000,000 yards of cotton bagging. This is an outcome of the recent movement against the jute bagging business. The amount of money which this contract calls for is about half a million of dollars.

Atchison Champion: One proposed trust—the salt trust—is a failure. The originators of it couldn't place the stock. When Congress meets, its first and most important duty will be to annihilate the trusts already existing, and make it impossible to organize others. The Kansas Senators and Congressmen are expected, by nine-tenths of their constituents, to take a leading part in this vitally important work; and they should have bills ready to introduce as soon as Congress meets.

The work of organizing is progressing rapidly in Osage county. Prairie Center Alliance was organized July 11, being the first in the county. This week we have organized four alliances and have seven or eight other points in view where we hope to organize. Maple Hill Alliance was organized last Tuesday night, with a list of seventy-four names, sixty-three being initiated at that time. The intelligence, refinement, enterprise and harmony of this neighborhood make it well worthy of imitation by many others. Monday, the 12th inst., is the time set for organizing the county alliance, by which time we hope to have ten or twelve sub-alliances. At that meeting some one will be recommended for appointment as County Organizer to continue the work of organizing the county.

#### THE MARKETS.

(AUGUST 3.)

|             |              |             |                 |                 |
|-------------|--------------|-------------|-----------------|-----------------|
| New York    | Wheat—       | GRAIN       | No. 2 red.      | 86 3/4 @ 88 1/4 |
|             | Chicago      |             |                 | 87 1/4 @ 88 1/4 |
| St. Louis   | Corn—        | No. 2       | 43 1/4 @ 44 1/4 |                 |
|             |              |             | 83 1/4 @ 84 1/4 |                 |
| Kansas City | Beef Cattle. | LIVE STOCK. | 8 38 @ 40       |                 |
|             |              |             | 4 10 @ 11       |                 |
| No. 1       | Fat Hogs.    | No. 1       | 3 17 @ 18       |                 |
|             |              |             | 3 20 @ 21       |                 |
| No. 2       | Sheep.       | No. 2       | 3 17 @ 18       |                 |
|             |              |             | 3 20 @ 21       |                 |

#### St. Louis Wool Market.

Receipts this week, 573,156 lbs.; last week, 785,025 lbs. Shipments this week, 283,364 lbs.; last week, 615,779 lbs. Receipts since April 1, 15,519,625 lbs.; same time last year, 9,610,300 lbs. No quotable change to prices, although to sell with any freedom or to force sales, lower figures would have had to be accepted, demand being limited and market devoid of strength; compared with those ruling in June last, quotations were fully 2 to 3 cents per pound lower. KANSAS AND NEBRASKA—Medium, 20a21c; coarse, 18a19c; light fine, 18a20c; heavy fine, 14a17c; low and inferior, 13a15c.

#### Harvest Excursions--Low Rates.

The SANTA FE ROUTE will sell, on August 6 and 20, September 10 and 24, and October 8, 1889, round-trip excursion tickets at greatly reduced rates—about one fare for the round trip, from all points in Kansas east of a line drawn through Albert station (Barton county), Larned (Pawnee county), Macksville (Stafford county) and Springvale (Pratt county), to all points west and to all points in the Indian Territory, Oklahoma, Texas, Panhandle of Texas, Colorado, New Mexico, Utah, Wyoming, Idaho and Montana. Tickets are good for thirty days from date of sale, with stopovers allowed at pleasure on return trip. Parties desiring to make a thirty days' trip to any of the western mountain resorts, including Las Vegas Hot Springs, Colorado Springs, Cascade Canon, Manitou, Green Mountain Falls, etc., can save money by taking advantage of the low rates on the Harvest Excursion dates. For ticket rates and other information, call on any agent of the A. T. & S. F. R. R., or address GEO. T. NICHOLSON, G. P. & T. A., A. T. & S. F. R. R., Topeka, Kas.

### ST. JACOBS OIL For Rheumatism.

Fresh Proofs Just Received.

25 Years. Sandville, Ohio, June 19, 1899. Was taken with rheumatism in 1861; suffered all times ever since and used crutches; St. Jacobs Oil cured me about 2 years ago; no return.

11 Years. Columbus, Ohio, June 29, 1899. Taken with rheumatism 13 years ago; suffered all one year ago; cured by St. Jacobs Oil. No return since.

Crippled Feet. Washburne, Ill., May 22, '99. Five years ago had rheumatism in my feet; suffered 5 years; used cast. St. Jacobs Oil cured me.

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- The KANSAS FARMER, one year, and the Breeder's Gazette—both.....\$3.00
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- Boone Breeders' Journal..... 2.00
- Weekly Capital-Commonwealth..... 1.75
- Weekly Kansas City Times..... 1.75
- Poultry Monthly..... 2.00
- Popular Gardener and Fruit-Grower..... 1.50
- Kansas State Journal (Topeka)..... 1.50
- National Horse Breeder..... 1.50
- Ladies' Home Companion..... 1.25
- The Home Magazine..... 1.25
- National Economist..... 1.50
- American Swineherd..... 1.20

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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 appraisal, to forward by mail a notice containing 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 first day of November and the first 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 falls 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 estray, must immediately advertise the same by posting three written notices in as many places in the township giving a correct description of each stray, and he must at the same time deliver a copy of said notice to the County Clerk of his county, who shall post the same on a bill-board in his office thirty days.

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.

FOR WEEK ENDING JULY 24, 1889.

Sherman county—O. H. Smith, clerk.

PONY—Taken up by Geo. W. Duff, in Union tp., June 17, 1889, one bay mare pony, weight 700 pounds, branded SS with bar above, both hind feet white, white on left front foot; valued at \$25.

Doniphan county—W. H. Farnbrook, clerk.

MARE—Taken up by Nic Reichenberger, in Wayne tp., P. O. Severance, July 3, 1889, one brown mare, about 3 years old, star in forehead, no other marks or brands visible.

2 COLTS—By same, two bay colts, 1 year old, star in forehead, one has four white feet; three above animals valued at \$140.

Shawnee county—D. N. Burdge, clerk.

2 COLTS—Taken up by Samuel Short, in Soldier tp., P. O. North Topeka, June 3, 1889, two colts—a chestnut filly, 2 years old, bald face, and a gray horse colt, 1 year old, no marks or brands.

Greenwood county—J. W. Kenner, clerk.

MULE—Taken up by Henry E. Downing, in Janesville tp., June 18, 1889, one dark iron-gray mule, 4 years old, weighs about 650 pounds, slit in left ear, mane and tail roached.

Greeley county—J. U. Brown, clerk.

PONY—Taken up by John Krebs, in Colony tp., June 24, 1889, one dark mare pony, branded ON on left hip; valued at \$25.

PONY—By same, one bay mare pony with colt, white strip in face; valued at \$35.

MULE—By same, one light bay horse mule, had halter on, indistinguishable brand; valued at \$40.

FOR WEEK ENDING JULY 31, 1889.

Nemaha county—W. E. Young, clerk.

STEER—Taken up by W. O. Beeby, in Harrison tp., P. O. Goffs, November 26, 1888, one red and white steer, 2 years old, blind in right eye, both horns broken off; valued at \$20.

Marion county—E. S. Walton, clerk.

PONY—Taken up by George Blackburn, in Doyle tp., P. O. Florence, June 24, 1889, one black mare pony, four feet eight inches high; valued at \$20.

2 COLTS—Taken up by W. Gulliford, of Cedar tp., (Chase county), P. O. Florence, July 13, 1889, two colts, one a bay mare colt, 1 year old, and one cream-colored horse colt, 2 years old; were taken up in Doyle tp., Marion county.

Shawnee county—D. N. Burdge, clerk.

HORSE—Taken up by Fred Klesath, in Monmouth tp., one horse, 12 years old, branded G on left hip and R on left shoulder; valued at \$30.

PONY—Taken up by Geo. J. England, in Auburn tp., July 16, 1889, one chestnut sorrel mare pony, about 9 years old, smooth shod, no marks or brands; valued at \$20.

Seward county—Oliver Leisure, clerk.

PONY—Taken up by Miles Hamilton, in Fargo tp., June 1, 1889, one brown mare pony, about 10 years old, brand like a goblet or wingless on left hip, scar on left hind leg; valued at \$15.

Wilson county—D. N. Willits, clerk.

MARE—Taken up by J. N. Harris, in Clifton tp., June 22, 1889, one dark brown mare, about 15 years old, small white spot on back, also white in flanks and forehead, had shoes on hind feet.

Rush county—E. L. Rush, clerk.

MARE—Taken up by Charles Woodward, in La-Crosse tp., July 9, 1889, one iron gray mare, white spot on right hind foot; valued at \$25.

FOR WEEK ENDING AUGUST 7, 1889.

Cowley county—S. J. Smock, clerk.

COLT—Taken up by A. O. Anderson, in Silver Creek tp., (P. O. Burden), July 17, 1889, one sorrel mare colt, ten hands high, white stripe in face; valued at \$15.

Sheridan county—I. H. Prince, clerk.

COLT—Taken up by R. W. Robinson, in Parnell tp., April 8, 1889, one bay mare colt, 3 years old, unmarked; valued at \$40.

Notice to County Clerks!

We will regard it a personal favor if each County Clerk will mail us, at the first opportunity, a complete list of breeders (with their postoffice addresses) of thoroughbred horses, cattle, swine, sheep and poultry; also the name and location of every creamery and manufactory in his county. When we have a complete list we will favor you with the directory for the State. KANSAS FARMER CO., Topeka, Kas.

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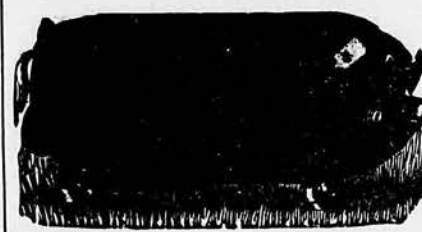
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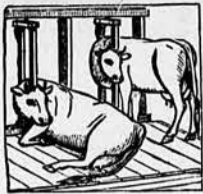
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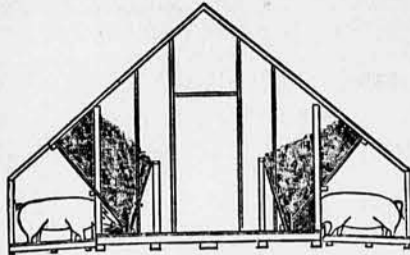
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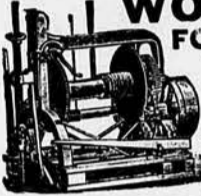
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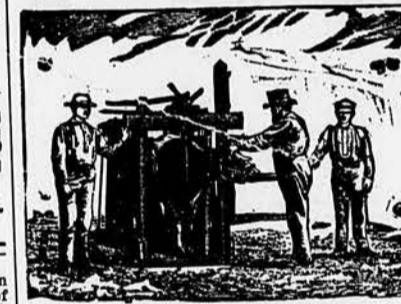
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