

KANSAS FARMER

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\$1.00 A YEAR.

ROME PARK STOCK FARM.



Bred and owned by J. A. HUBBARD, Rome, Sumner Co., Kans.

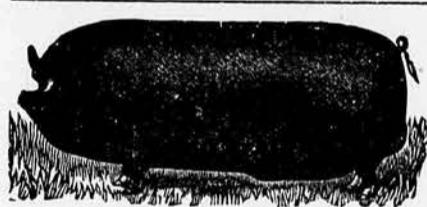
We are pleased to present this week cuts of some famous hogs bred and owned by T. A. Hubbard, of Rome, Kas. The originals, as well as the pictures, are beauties, and the stock is the finest we have had the privilege of seeing in a long time. Mr. Hubbard's animals include some of the most noted prize-winners in the West—having won seventy-five premiums at four fairs, including the grand silver medal for the best herd, at Topeka, in 1886, and his herd has been greatly improved during the past two years.

Early in February of this year our business manager had the pleasure of visiting Mr. Hubbard's stock farm, at Rome, in Sumner county, this State, and in our issue of February 21, in writing up his report of this visit, he says:

The writer had the pleasure, last week, of visiting one of the most extensive and representative swine-breeding establishments of the West, owned by Hon. T. A. Hubbard, Wei-

lington, Kas. Rome Park Stock Farm is located seven miles south of the city, at Rome station, on the A. T & S. F. The herd comprises both Poland-Chinas and Berkshires of rare breeding and superior individuality. The writer has visited many large establishments, but never before saw so large a herd that was so uniformly good. Mr. H. had the good judgment as well as means to stock his herd with the best and has never repented what must have seemed at the time lavish expenditure. Some of the herd has been exhibited at the leading State fairs of the West and won the highest honors. Mr. H. has undoubtedly more good stock on hand, of both breeds, than can be found anywhere west of the Mississippi river. No reader of this paper, who will mention the same, need hesitate in sending him mail orders for stock, nor will any buyer visit his herd without buying some of the many grand animals on hand. The stock are the best advertisement.

Mr. Hubbard is surely a very successful stock breeder, and he merits every bit of the large amount of success he has attained in his business by his tireless energy and fearless expenditure of money to make his herd what it is—the finest to be found anywhere.



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(Continued on page 20.)

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SEEDS

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TOPEKA, KANSAS.

OFFICE STATE SUPT. OF PUBLIC INSTRUCTION, TOPEKA, KAS., January 16, 1889.

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Very respectfully yours, GEO. W. WINANS,

State Supt. Public Instruction.

The Western School Journal publishes monthly all the opinions and decisions of the State Superintendent, Attorney General, and Supreme Court on questions relating to our schools. These opinions and decisions will be worth much more than the cost of the Journal to any school officer. According to an opinion given by the Attorney General, school officers have the power to subscribe for an educational journal and pay for it out of the district funds. Our regular rate is \$1.25 a year, but to district boards, if three copies be taken, we can make the rate \$1.00. Please remit by money order, postal note, or registered district order. Address

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Topeka, Kansas.

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FOR 1889.

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These tables give the maximum, minimum and mean temperature, in degrees Fahrenheit, for each month in the year, for most of the Northern States and part of the Southern States, each State being calculated separately. The amount of rainfall has been calculated for each State, most of the Territories, and for Quebec, Ontario and Manitoba, for each month in the year, and the results stated in inches; and most of the large States have been subdivided into two to six parts. General predictions are also given for England and Europe. The predicted degrees of temperature and inches of rainfall will prove to be so nearly correct that they will clearly indicate which parts of the country will be the warmest and which the coldest, which the wettest and which the driest for each month. We have compiled all the records for the past fifty years, and show in inches what the average rainfall has been in each of said subdivisions. Also what the normal temperature has been. We have also calculated the weather for all civilized countries, to know what the crops will be in all parts of the world, from which we have inserted a table showing what the probable price will be in Chicago for wheat, corn, oats and cotton for each month in 1889.

The best evidence of the correctness of these predictions is our past record, which shows a verification of 88 per cent. for the past fourteen years; and the constantly increasing demand from all parts of the civilized world for our weather predictions. The floods, droughts and temperatures for 1889 will be at greater extremes than anything which has occurred since 1816.

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Agricultural Matters.

WHAT THE GRANGE IS DOING.

Essay read by A. P. Reardon, at the installation of officers of the Grange, at McLouth, Jefferson county, January 1880. [This has been on hand a long time, but it has lost nothing by age.—EDITOR.]

Perhaps it would be well for us, at this, our public installation to day, to give a brief outline of the aims, objects and purposes of the subordinate, State and national granges, that binds its membership together in one common brotherhood and sisterhood. And while our order is young in years, yet, we claim that there is no other secret organization in existence to-day that can claim broader principles or more virtue than is conceded to the grange.

In 1865 President Johnson commissioned O. H. Kelly, then in the employ of the Department at Washington, to make a tour of the States to ascertain the true condition of the agricultural resources and report thereon. During his travels Mr. Kelly found a general lack of vigor and activity, and dissatisfaction among farmers, a condition which called loudly for earnest consideration and prompt action. The relief demanded, however, was of that general character which, in his opinion, could not be had only by organization, and by systematic working together, and upon his return to Washington made such suggestions and recommendations as he deemed best to meet the requirements of the hour. Under these circumstances he called a few of his personal friends together and in 1867 organized the first grange of the order, in whose order we are assembled here to-day. And as a foundation for success it was based upon faith, hope, charity and fidelity. It not only commends its members to visit the sick, care for the distressed, feed the hungry, care for the orphan, bury the dead, but to care for the living as well.

Our organization embraces the best features of the school, the lyceum, farmers' club and singing school. It is teaching its members to become writers, readers, thinkers and speakers in our meetings. It teaches us to think for ourselves, and vote for ourselves, and act for ourselves in all matters, and thus establish confidence in one another. In our order honesty is inculcated, education nurtured, temperance supported and brotherly love cultivated. We believe the agriculturists of this nation should be as well educated, as well cultured, as well fed, as well clothed, as well sheltered, as well paid, as well represented, and as well respected as the members of any other profession or calling, and we be-

lieve that the true principles of our order, when rightfully carried out, will secure these results for the farmer and his family.

Farmers, you need our help and we need yours. Separate us and we are helpless. United and standing together we are a power in the land. In our field of work in needed legislation, we embrace the State and national granges.

At the last session of the Kansas State Grange, held at Olathe, in December, the following resolutions were adopted, to be presented by a committee from Capital and Oak Granges of Shawnee county to the Legislature of Kansas, during the early part of the present session, with instructions to insist on the passing of the same:

Resolved, To have a uniform system of textbooks for our common schools.

To pass a law compelling all county officers to pay over to the County Treasurer all fees collected over a salary of \$2,000 per year, exclusive of office rent and clerk hire.

To change the interest law from 7 to 6 per cent., and 12 per cent. to 10 per cent.

To so amend the law that parties holding fraudulent notes and claiming to be innocent purchasers, or a third party to the transaction can enforce the payment of the same, as has been the case heretofore.

To so amend the laws on fire insurance that the patrons and farmers can start an insurance on the co-operative plan without being compelled to make a deposit of \$100,000 as is required under the present law, in which, if it can be so changed, will add thousands of dollars annually to the income of the farmers of Kansas.

At the last session of the National Grange, held at Topeka, among the lines of work marked out which indicates its policy for the coming year, is—That its bill so long advocated making the Commissioner of Agriculture a member of the President's Cabinet, shall become a law.

Urging the Commissioner of Agriculture to inquire through the United States Consuls as to the imports of agricultural products into foreign countries, and, as far as possible, open up foreign markets to our surplus crops.

Sustaining the inter-State commerce law, and favoring only such amendments as would prevent the Commission from suspending the operation of the fourth section.

Asking immediate and adequate legislation to control trusts in the interests of all classes who unfairly suffer their exactions.

Reasserting its former request for laws preventing dealings in futures, cornering markets and gambling in the food of American people.

Favoring legislation to prevent the purchase or holding lands in the United States by foreign syndicates or aliens.

Asking a still further reduction in postage upon seeds, plants, etc., in the interest of agriculture.

Again requests the issue of fractional currency for use in the mails in rural districts.

Asking for such changes in our immigration laws that will require from each immigrant a certificate of health and good character, by the United States Consul in the country from whence he comes.

Favoring legislation to still more encourage the manufacture of sugar and silk in this country.

Indicating that in all matters of tariff legislation farm products shall have equal protection with those of manufactory and all other industries.

Favoring the agricultural experimental stations and their support by farmers generally, and while this is a part of the grange work in the future, in the past much has been done to restrain the greed and avarice of corpor-

ations, the burdensome requirements of our patent laws, and the evils and frauds of adulterated food and articles in common use, and advanced the interest of education and morals everywhere. They are among the triumphs of the grange which places our order at the head of the column.

As a band of aggressive and progressive workers for the interest of agriculture, the grange is worthy of the confidence and support of every farmer, whether he tills the soil or feeds the stock. The farmers must come to the front and organize and demand, by their numbers and wealth, that combinations and trusts which destroy confidence and wrest from a burdened people profits that are unreasonable and unjust.

STORING WATER FOR TIME OF NEED.

A friend, Dr. H. W. Parsons, of Wamego, sends us a copy of a communication which he prepared for the Kansas City Times some time ago, and which was printed in that paper, discussing the storage of water by farmers. We extract the following:

What is wanted is moisture. We all know that the soil is rich and that bountiful crops could be produced if we had now and then a rain at the right time. We also know that during our driest seasons we have a great abundance of rainfall—sufficient to produce the very best of crops, but our treeless prairies shed water like the roof of a house, so that within twenty-four hours after a good rain the earth is again dry and the greater part of this water is choking the streams on its way to the Gulf of Mexico.

It has been proposed to build great lakes or reservoirs at the foot of the Rocky mountains. This would tend to produce a climatic change, but not great; contractors would grow rich out of such a project, while a much greater change could be wrought and more good be done by distributing this money among farmers to construct small lakes from one-half acre to two acres in extent over this great area from the Gulf of Mexico to British America. There is no doubt but the lakes would be built by the farmer if he only realized their value and had some aid from the government.

Dams could be built across ravines at a trifling expense and trees can be planted around these dams. It is well known to those who have cultivated fish that these fish ponds, occupying worthless land, render it as valuable to them as their most choice and productive, for one or two acres stocked with fish would furnish their families with that luxury that but few farmers enjoy.

This idea was presented to my mind as I watched a heavy rain in June. It came down in torrents; every little rivulet was choked with water. There was water everywhere. As I watched it rapidly flowing by, the thought came, if we could only store this surplus there would be enough to carry us through the next dry season, which we are sure will soon come. If an appropriation were made by the United States, and each State also gave to this enterprise, then each man could be paid a fair price for his land and something each year to keep it in repair.

This money would provide for the present wants of many a poor man who is now laboring hard on the frontier for the support of a family, and it would also aid him in making himself a home, while the ponds would furnish his family with nourishment. The government would soon learn that this money had been well spent.

But the greatest benefit that would be derived by the commonwealth would be in the great climatic change that these lakes would produce. Every section of land should have one or more of these

lakes, in some cases they might be large enough to hold water for irrigation, but the idea is to have them for the purpose of evaporating basins. There being thousands of them, they would represent a vast area of water surface fringed with trees that would make a quick growth and keep these ponds from too rapid evaporation.

Then our hot winds, or the "simoons of the American desert," blowing over these bodies of water, would cause rapid evaporation, and become cooler, so that they would be robbed of their terror. As they wafted this moisture northward over a country cooled by innumerable lakelets, these vapors would become condensed, and fall in the form of rain. Again, the north wind will carry the remaining moisture to the south, and there water the thirsty crops of that region. Thus we see, as our winds blow almost directly north and south, that instead of this moisture being lost to this section, it would again and again be wafted back and forth over this arid region, and the country that is now looked upon as being almost uninhabitable would yield to the farmer a most productive harvest.

It is a well known fact that since this country has been opened up and a large amount of land been brought under cultivation the rainfall has increased. We also know that over forests, bodies of water and even cultivated land, the temperature is cooler than over the uncultivated prairies; thus this coolness causes the moisture floating over to be condensed and it falls in the form of rain. One can notice in dry seasons, when we have but now and then a shower, that they seem to follow the great water courses. We can attribute this to the same cause. The atmosphere being cooler there, these vapors are condensed in their passage over it and rain is the consequence. Further proof might be given, but the reflecting mind will see that a great change would come over this country, and for every dollar that was given to help the industrious pioneer, the government would receive tenfold in the increase of its revenue and the additional wealth of these great plains.

We must make some move in this country to improve our condition. This subject is one which should not only interest the farmer, but the mechanic and merchant as well, for without moisture we have but an arid region, a barren desert.

Every Senator and Congressman from the Dakotas, Nebraska, Kansas, Texas, and Colorado should act in unison to secure an appropriation from the United States, and the Legislatures of every State and Territory should offer some substantial aid to its pioneers to construct these reservoirs. Kansas, standing out as a bright star in the galaxy of States in every movement that helps to elevate mankind, can do no better than to see that this idea is carried out.

Let this subject be agitated, societies formed, and aid asked for from the States and the United States; then an interest will be awakened. The farmer, seeing the great value of these reservoirs, will begin to build them, and if an appropriation of a million a year for the next ten years can be secured to these States and Territories of the eastern slope of the Rocky mountains, it will not only bring us plenty of rain, but it will distribute \$10,000,000 where it is most needed, for it will aid a people that is as deserving and that needs the protecting aid of the government as much as any people in this broad land.

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.

The Stock Interest.

THOROUGHBRED STOCK SALES.

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

MAY 10—Geo. Fowler, Herefords and Short-horns, Lincoln, Neb.
MAY 29—Hon. H. M. Valle, Short-horns, Independence, Mo.

More Bone and How We May Secure It.

Whether we consider our average full-blood domesticated farm animals, as they are represented by their portraits, more or less life-like, in the agricultural papers, or whether we examine them as they stand in the show ring, farm yard or pasture, the first important deficiency we notice is in the bone, which appears quite too small and fragile for the mass of fat and flesh it holds up and sustains in locomotion. The improved Berkshire and Poland-China hogs show this deficiency most in the cuts, and so much so that the prize pig looks like a plump cucumber set up on good-sized shoe pegs, while the live animal is sure to break down if driven either fast or far. The steer raised and fed for meat alone is not criticised so much for want of bone—but the calf is, because a good bone is the surest sign of a heavy weight, whether he is reserved for breeding purposes or reformed for beef. And so in some, if not in most points in respect to the cow. But nowhere does the lack of bone bear so heavily as on the grade heavy-weight horse. The old and popular dictum in the various horse-breeding countries, "no hoof, no horse," is not truer than the later one, common in the corn and cattle countries, "no bone, no horse," and in those sections there is no deficiency so common to be met with as a 1,200 or 1,400 pound body on an 800 or 900 pound set of legs.

Now, the problem to solve is how shall this defect of bone be remedied? The deficiency of bone is no doubt owing to the lack of bone-making material in the form of corn and grass and hay, lacking in the phosphates. If we undertake to feed the phosphates in a mineral state, or in acid solutions, the digestive organs refuse to assimilate them, the whole being carried off in the dejections. At any rate that is the sum of the conclusion arrived at, after a long season of experiments on the other side, and it is now recognized that digestion and assimilation of the phosphates is never successfully accomplished except they are first taken into the substance of the plant while growing, and are extracted from it by the digestive forces of the living creature. It remains then for us to accept these facts as conclusive, and take measures to increase the phosphate in our grain, grasses, forage and hay.

As preliminary to what I am about to advise, let me relate a few of the results of personal observation and experience, and report facts learned of travelers, and what I have read in the papers. In Kentucky, two years ago, noticing the small size of the mules, I asked a farmer and breeder to explain it. He said he could not; nevertheless, while it was found difficult to raise and feed mules as successfully as formerly, it was impossible to get the size on them that made the business profitable. I suggested a deficiency of phosphate in the grain, grass and hay, and I was reminded that the blue grass region was still one of the richest in the world, as recent investigation had shown. The answer to this was, that the soil, as a body, may have lost but a small per cent., still by continuous cropping there is less within the reach of the plants to take up and assimilate, and in conclusion suggested that if the phosphate

fertilizers were used liberally there would be no reason to complain of small skeletons and general bone deficiency.

An acquaintance of mine, a horse dealer of considerable experience, has within a few years visited many of the leading horse ranches of the Southwest, as well as those of Montana, Oregon and Washington. Of some of these, located in fertile and sheltered valleys, he related many interesting facts as to horse-breeding. For example, he has seen car loads of 3 year-olds which had been raised without shelter and never had a kernel of grain, weighing on an average of the hundred 1,400 and 1,500 pounds each, with a bone development corresponding, and with manes and tails so heavy and long that the 3-year-olds resembled gigantic Shetland ponies. Besides, he said that full blood draft stallions from abroad turned loose to shift for themselves doubled the length of the mane and the hair on the tail and legs in the course of two or three years. After these statements had been made I explained that the excessive growth of bone and hair was due to this, that these creatures for years never took a bite of grass, green or dry, but that they injected a certain quantity of soluble phosphate with which the plants were fully charged because the living were preying upon the dead, whose remains had accumulated on the surface for generation after generation. It is known that California thoroughbreds at 2 years of age have acquired as large a bone and muscle development as those raised in Kentucky at 3 years—another case of the abundance of the phosphates in the wild oats and grasses of California, and their comparative poverty in the grasses and grain of Kentucky.

I have a couple of grade heifers, one three-fourths Short-horn, and the other a three-fourths Jersey, in each case the remaining fourth being scrub. The former has legs under her like mill posts. Both have had the run of a good pasture all summer and two quarts of oats daily. They are exceptional only in the size of bone and body, which I attribute partly to the pasture, which has received several heavy amendments with bone and phosphate fertilizers. With these observations and experiences, I am confident that if some of our leading horse-breeders were to select a timothy and blue grass pasture of 40, 80 or 100 acres, sow bone and potash fertilizers at the rate of 500 pounds to the acre, turn no stock on till after the middle of June, and after that pasture mares with colts by their sides, in course of a year or two they would recognize a bone development which would compare favorably with the horse stock of Montana and California.

When the grasses of those latter regions have been depastured down as long and as closely as those of Illinois, Kentucky, Tennessee, etc., then the same deficiency will be found in stock on the west side of the mountains as now on the east.—*B. F. J., in Country Gentleman.*

Ensilage is found to be as good food for horses as it is for cattle and sheep. Sweet corn properly made into ensilage is said to be as safe to feed horses as grass, and Professor Stewart, of New York, says that where it was supposed to have been injurious, the effect of grass would have been the same, except that if the ensilage was very sour it might have produced a more aggravated fermentation than grass, but all experienced horsemen know that they must be very cautious when horses are changed from dry food to grass. Prof. Stewart gives the following ration for work horses under slow motion: "Fif-

teen pounds corn ensilage, six pounds cut hay, eight pounds wheat bran, four pounds corn meal, two pounds linseed meal. This may be the proportion, and it would be a sufficient ration for horses, say of 1,100 pounds weight, and on common work. But if the horses were heavier they would require more food, or a larger quantity of the same combination. The cut hay should be well mixed with the ensilage, and then the other foods well mixed with the ensilage and the hay. This should be given in three feeds, smallest at noon. Or it might be given morning and evening; largest at evening, with simply a little dry hay at noon. Either way would prove right in practice."

Sheep husbandry will grow faster in the future in Kansas than it has done in the last half dozen years, and it is well for farmers to keep themselves posted concerning the handling of sheep. They are very easily raised, requiring little attention, not much feed, and return larger profits in the aggregate than any other classes of live stock. The most serious difficulty in the way of keeping sheep is disease. This animal is subject to several classes of disease which, if not properly attended to in time, will prove serious. Here is a recipe for the treatment of foot-rot by a correspondent of *Breeder's Gazette*: "After the foot is cleaned and pared, have the following applied: Dissolve as much blue-stone in warm soft water as the water will take up; dip each diseased foot in the liquid. This will penetrate between the sound and diseased portions of the foot, and above the horny substance of the hoof (for the disease will sometimes break out above the hoof, as though the foot had been pierced by a nail); and at this dressing, and before you let the sheep go, apply the following: Have your druggist grind in his mill a pound of blue-stone (blue vitriol or copperas) as fine as flour; then mix in some earthen vessel with raw linseed oil, not boiled, so as to form a salve, and put as much of this as you can hold on the end of a small wooden paddle, half an inch long, and four inches wide, between the claws of each foot. Work the claws together, so as to rub it in; it will stick better, and dry as hard as glass, if the sheep are left on a dry plank floor for twelve hours after being dressed. Then let them out in the field, and go over every three weeks as at first. I think four dressings will cure almost any flock of sheep, with proper sanitary measures."

Among the many classes of feed for pigs may be mentioned buttermilk; if it is mixed with corn meal it is probably more profitable than in any other mode of feeding. It has been supposed that buttermilk is not as nutritious as sweet milk, but experience does not confirm this belief. Experiments made with the object of testing the comparative merits of sweet milk and buttermilk, have proven the latter to be the better food for pigs. Why this is so it would be difficult to say. The truth is not that way, however.

LIVE OAK, ALA., December 13, 1886.
MESSRS. A. T. SHALLENBERGER & CO., Rochester, Pa.—Gents: Last spring I received by mail a bottle of your Antidote for Malaria for my brother, who had chills for more than six months. He frequently broke them with Quinine, but they would soon return. I gave him the Antidote and he has not had a chill since. It has made a permanent cure.

Yours truly,
W. W. PERDUE.

Bulls for Sale.

Fifteen choice Short-horn bulls, from 8 to 20 months old; also a number of choice heifers. Will sell at reasonable prices on terms to suit purchasers. Address T. P. Babst, Dover, Shawnee Co., Kas.

In the Dairy.

Value of a Creamery.

EDITOR KANSAS FARMER:—About one year ago we concluded not to keep a hired hand. Although there was plenty to do for two good hands, wife and I concluded we would manage to take care of six or seven breeding yards of fancy poultry and the herd of Poland-Chinas always begging for something to eat, and fifty colonies of bees that we were going to try to keep from swarming, and then the milk from our little herd of five Jerseys had to be taken care of, the little farm to see, and boss the cultivation of, and a store to look after and attend, which altogether kept us busy and made us put on our thinking caps many a time to save labor. One of the best investments to save labor we ever made was that of buying a creamery. Every farmer's wife that milks from three to a dozen cows knows what work and annoyance it is to have a dozen crocks or pans setting around to skim, and the time it takes besides the work and bother of washing and sunning each pan or crock. Our creamery has two deep cans in it, capacity eleven gallons each; the milk is strained into the cans, and when the cream rises draw off the milk through a faucet, and when the milk is all out shut off faucet and draw off cream in the same way, all taking but a few moments. The can can then be scalded with less trouble than a single crock or pan. Mrs. T., after using the creamery about one year, says it is the greatest labor-saver she has ever used, and thinks it has nearly paid for itself in the more uniform and better grade of butter she is able to make, and where a person has six or seven cows it would pay to sell some of the cows and invest it in a creamery. We knew nothing about creameries when we bought ours, just went in blind and bought a Mosely Occident; but I have no doubt but any of the other creameries advertised in KANSAS FARMER is as good and will do all they claim for them. The price of ours was \$40.00, and we would not be without one of some kind.

M. F. TATMAN.

Rossville, Shawnee Co., Kas.

Dairy Notes.

Cheese-makers, you should keep a reliable timepiece in your make-room, as the memory cannot always retain an accurate remembrance of the length of intermission between important processes in the working of the milk. For instance, if the milk showed no signs of coagulating (or coming) within a reasonable time after the application of the rennet, you would, perhaps, in your anxiety, underestimate the length of its dillatoriness and plunge in some more gastric juice just as the former application was about to make the fluid thicken. Now, if you had a watch hung up, or better yet, a clock, it would be impossible to underestimate Father Time, and you could work your milk with clock like regularity. You know its so easy to call ten minutes five, and vice versa, when no reliable dial is consulted. Every cheese factory and creamery needs a timepiece as much as does a schoolroom. When milking, never approach a cow in business matter-of-fact way as if you were going to draw a pail of water from the pump, but court docility in her by a docile demeanor on your part. Long domestication of cattle insures certain degrees of passiveness by heredity. But there is a constant tendency in them to return to *feroe natura* and your only stay against the natural retrograde is a kind

heart and gentle hand. Let both have a predominating influence in the stable; and don't get case-hardened to truths bearing on the subject that are constantly placarded in dairy journals. Wise dairy maxims are sometimes capable of espousal in no other way than by keeping them perpetually before the public eye. Patrons, take your milk to the factory very early in the morning. Do not take breakfast till after you return, and then let the breakfast time be not later than 7 o'clock. In every dairy community farmers deliver their milk at the factory all the way from 5 to 9 o'clock in the morning, the former representing the "early bird catches the worm" class; the latter, the sleepy head. Particularly in the hot months, the milk should all be in the vat by 7 a.m., and proverbially tardy patrons given to understand that there will be no room for their portion after that hour. There is nothing like the rule to cure dillatoriness unless it is the chagrin of missing the right train when one is on his way to attend his own wedding. Prompt early delivery of milk is as necessary to preserve its quality as is discharge at the city market house or garden truck with the morning dew on, essential to its crispness and salability. By 8 a.m., or thereabouts, a June or July sun is booming with torrid fervor, and milk cans travelling along a country road converge the solar rays and prematurely age the fluid within. Instances have come under my personal cognizance where milk cans set out to dry on the south side of a farm house have so intensified the sun's rays that at noonday the blistering tin fired the dry clapboards of the building. Of course, the position of the cans had something to do with it. Thus we see that a tin can is far from being a cool vessel to carry milk in through the sunshine, and early delivery is imperative if we have any consideration for the sweetness and purity of the product.

We never could see the reason why that housewives with an abundance of pure, rich buttermilk at hand would let it go to the pig-sty and use baking powder in its stead. It is like throwing away the genuine coin and voluntarily accepting the counterfeit. Pure baking powder is all right as a substitute, but when it supplants in the culinary department so healthful an article of diet as buttermilk, when the latter is at hand, our cookery suffers the loss of a nourishing quality.

There is always plenty of complaints rife about cheesy flavor in dairy butter, and it is only one of the bricks of evidence that go to make up the wall of proof against the uneven quality of the home-made article. We would like to see housewives forsake the old mediæval methods of their grandmothers and imitate as far as possible the modern creamery plan. But to return to cheesy flavor. Of course it is caused by old sour cream. The cream is lifted from lobbered milk, the characteristics of the latter indelibly impressing themselves on the yellow mass of oil globules composing the former. Then the cream is consigned to a crock or jar, there to await daily accessions until enough has accumulated for "a churning." If the dairy be small, by this time the initial cream is very, very old and very, very cheesy, and the butter will be likewise, there is no alternative. There is but one remedy, and that is the common-sense one of never attempting to make butter out of anything but undecomposed material. Cream is only fit for the swill pail when it gets cheesy.

Why do not more women work in our creameries? The manual labor is light compared to what it formerly was, as

ingenious machinery now performs the major portion of it. Women are succeeding so admirably in callings to which till recently they have been strangers that we do not see why they have a most natural aptitude. Most of the labor is far lighter and more pleasant than ordinary housework. The remuneration for capable employees is high, and woman with her quick intuition would never be found among the incapable ones. Cheese making formerly attracted dairymaids, but there was so much heavy work even with a male assistant, that but few were heroic enough to long continue at it. The great flat aromatic cheese manufactured in the Swiss cantons are produced by the hands of sturdy peasant women who look on the avocation as privileged and peculiar to their sex. We would like to see a few American dairymaids in our Western creameries showing the world what they could produce in the way of the fanciest of fancy butter.—Geo. E. Newell, in *American Dairyman*.

The Poultry Yard.

Kansas Poultry Interests.

EDITOR KANSAS FARMER:—We think the Kansas Poultry Association has come to stay, because the interests of Kansas breeders demand such an organization. There can be no successful enterprise conducted without there is something to stimulate those interested, and there can be nothing which will give a greater impetus to the poultry interests than an organization that aims to promote this industry in every manner possible and which has for its main object the promotion of thoroughbred breeding, not only as to fancy but useful points.

There are enough breeders in Kansas to make things hum. Those who are interested in the least should encourage this association and endeavor to build up an enterprise equal to any in the West. We lack not for timber. There are as good poultry judges, professional and non-professional, as can be found in any other State in the Union. There are as good birds raised of any and all breeds as are placed in any exhibition room. The people are becoming educated to know that a good bird costs no more to raise than a poor one and is sure to sell for more money. There is a growing desire with all persons to obtain the best of everything in accordance with the ability of their pocketbooks; and as Kansas advances in wealth there is sure to be a growing market for the best breeds of fowls.

It is difficult for a few to accomplish much, but so many breeders as Kansas can show, there is no such word as fail when each does his part. Then the great benefits that will come to each there is no estimating; there will always be a forward movement all along the line, and those who take this tide in the affairs of poultrymen will certainly be led on to fortune. Poultrymen of Kansas, think of this, act at once, send in your name and \$1 to the Secretary, be enrolled among the members of the progressive poultry association of the West, and your name will not be Dennis. JOHN C SNYDER, Pres't Kansas Poultry Association. Constant, Kas.

Plan for a Farmer's Chicken House.
A writer in *Farmers' Review* gives his experience in chicken house building. He says: "When we commenced our farm in 1883 we built a hen house, and from that time since, as necessity required, have built what we called improved houses, always with something

awkward or lacking about them. Six years ago I formulated a plan in my own mind, and built a two-story building 18x20 feet; a good, solid foundation; three bents, so that a twelve-foot board reached from the top of the plate to the ground; the space between the floors 6 feet 9 inches in the clear; the floors are matched flooring; the roof, shingles; the lower room is a good place to feed in in the winter, an easy flight of stairs going up from one corner and a light trap-door on the second floor to be closed when required; up stairs is the roosting place; the roosts are cedar, 2x4, 16 feet long, on legs 20 inches high; the outside boards are twelve inches wide, and were nailed on and allowed to shrink until fall, and battened afterwards, the cracks pointed with mortar. I made a closet under the stairs with three-inch strips, a slat at the end; it makes a good room to drive them in, to catch them, or to fasten them in. On the other side, I have a long box divided into nests, which sets about 4 feet from the wall, a movable slat partition rests on the top of the box, and is fastened temporarily to the floor overhead; the nests have slanting covers on each side of the box or nest with leather hinges, so that when the nest is used for laying hens the front covers are opened and the back ones shut, and when used for setting the front ones are closed and the ones opening into the partitioned-off place are opened, where the setter, undisturbed, has a little room with feed and water, and is left to herself, a door at the end made of slats making it a convenient little room. As farmers, we cannot spend a great deal of time with the hens. There are two doors, one leading into the hen park, the other at the opposite end of the building. There is one window upstairs, another down, which in the summer time are left open."

A Madman at Large!

He is a well-known citizen, and his nearest and dearest friends do not suspect his insanity. How do we happen to know about it? Listen; his appetite is gone, he is low-spirited, he don't sleep well, he has night-sweats, he is annoyed by a hacking cough. These symptoms are the forerunners of consumption and death, and yet he neglects them. Is it any wonder that we call him a madman? If you are his friend tell him to get a bottle of Dr. Pierce's Golden Medical Discovery without delay. It will cure him if he takes it in time. It will not miraculously create new lungs when the old ones are nearly gone, but it will restore disengaged ones to a healthy condition. Tell him about it, and warn him that in his case delay means death.

It requires 600 horses to draw the busses and large transfer wagons that do the business of Denver.

A horse that has been grazed from a colt until maturity, say until 5 years of age, will never carry his head high and carry it gracefully. The top muscles of his neck have been elongated.

The raising of staunch but well-bred horses should by no means be omitted on the farm. It is not accomplished by using old worn-out mares of any off color to do farm work and to breed from.

The value of a remedy should be estimated by its curative properties. According to this standard, Ayer's Sarsaparilla is the best and most economical blood medicine in the market, because the most pure and concentrated. Price \$1. Worth \$5 a bottle.

A good young sheep will always command a market; but such animals should be retained to await what time will develop in the sheep husbandry, and to help form a profitable flock when the business take a turn for the better, as it surely will in the course of time.

An exchange gives the following as a remedy for sun-scald in pigs: All that is required is to protect the pigs from the sun

Rheumatism

"Having been troubled with rheumatism at the knee and foot for five years, I was almost unable to get around, and was very often confined to my bed for weeks at a time. I used only one bottle of Paine's Celery Compound, and was perfectly cured. I can now jump around, and feel as lively as a boy." FRANK CAROLI, Eureka, Nevada.

Paine's Celery Compound

has performed other cures as marvelous as this—copies of letters sent to any address. Pleasant to take, does not disturb but aids digestion, and entirely vegetable, a child can use it. It cures even those whom doctors call incurable. What's the use of suffering with rheumatism? \$1.00. Six for \$5.00. Druggists.

WELLS, RICHARDSON & CO., BURLINGTON, VT.

and wind, and rub their skin with sweet lard. If a litter becomes affected, it is a good plan to keep the under sides of the sow well greased, as this is more easily done than to catch and grease the young pigs separately. If the affection does not disappear in a few days, a few drops of carbolic acid may be added to the grease applied.

Wonderful Popularity.

The fact that the sale of Dr. Pierce's Pleasant Purgative Pellets exceeds that of any other pill in the market, be it great or small, is on account of the fact that they are tiny, little, sugar-coated granules, and that in most cases one little "Pellet" is sufficient for a dose; that they are purely vegetable and perfectly harmless; and for constipation, biliousness, sick headache, and all diseases arising from derangement of the liver, stomach or bowels, they are absolutely a specific. A gentle laxative or active cathartic, according to size of dose.

When wool has reached that condition of oiliness which may be found in a fine healthy head of hair, on which a daily brushing has kept the natural oil disseminated through its entire length, then, and not before, it should be shorn.

Europe is all very well, but don't you think it is only fair as an American to know your own country thoroughly? Try the "American Alps" on the South Park Division of the Union Pacific in Colorado this summer. There's nothing like them in Switzerland.

The splendor of the "American Alps" are beginning to be appreciated by our people, and a visit to Switzerland for gorgeous scenery is unnecessary. The picturesque mountain resorts on the South Park Division of the Union Pacific in Colorado are absolutely unrivaled on this continent.

"For peculiarly soft yet penetrating shades of color, marvelous grouping in form, fantastic, solemn and tender shaping of rugged cliff and mountain and valley," says a distinguished artist, "the wonderful empire of Colorado stands peerless." The Alpine scenery along the line of the South Park Division of the Union Pacific in Colorado is the most magnificent in the United States.

Moran, the great artist, despaired when he saw the Great Shoshone Falls—it was so far beyond his pencil's cunning. So there are wonderful dreams of beauty in the tempestuous loveliness of the grand "American Alps" in Colorado, which are at once the aspiration and the despair of painter and poet. Splendid beyond comparison is the superb scenery along the South Park Division of the Union Pacific in Colorado.

It is un-American in the higher sense for our people to prate about Europe so glibly when so many of them are profoundly ignorant of the wondrous beauties of their native land. As a matter of fact there are hundreds of thousands of American citizens who are thoroughly familiar with Switzerland; who have idled away weeks at Lucerne, done Chamouni, and attempted the Matterhorn, and yet have never feasted on the lovely beauty, the wild weird majesty of any one of the Colorado Peaks. "More than Alpine glory" rewards visitors along the South Park Division of the Union Pacific in Colorado. There is no scenery like it in the new world.

KANSAS EXPERIMENT STATION.

From advance sheets of Prof. Shelton's report of experiments, 1888, we take the following paragraphs:

MANURE—WHEN TO PUT ON LAND.

Manure in the spring season is certain to be very bulky and very heavy. Besides, this coarse, strawy manure, when plowed under—a difficult task always—leaves most Kansas soils too loose; and then this unfermented dung is "cold" and slow in action. On the other hand, the winter crop of manure carried through the summer season changes rapidly into a festering mass, making the barn-yard a quagmire of filth and a breeding place for insect pests, and, most important, the waste of the manure in bulk and quality during one of our torrid summers is enormous. But how much? To answer this query, the experiment, the subject of this chapter, was planned and carried out. * * * The moral which the experiment plainly emphasizes is, that farm-yard manures must be hauled to the field in the spring; otherwise the loss of manure is sure to be very great, the waste in the course of six months amounting to fully one half the gross manure and nearly 40 per cent. of the nitrogen which it contained.

INACCURACY IN PLANTING CORN.

A field of twelve acres was drilled to corn, early in May, one of the standard drills, a machine in good order, having been used for this purpose. The soil was in excellent tilth, the ground having been plowed the previous fall, and again just before planting time. The drilling was as nearly as possible a continuous operation, the work having mostly been done on May 2. The resulting "stand" of corn was pronounced by practical men to be an excellent one. There were very few considerable blank spaces in the rows, and not noticeable crowding. A closer examination, however, showed great irregularity in the spaces occupied by the corn plants. There was no semblance of that equal division of the ground among the different plants, of which this plant of all others is most capable. That this was due to faults in the action of the drill seems to be proved by the fact already stated, that the ground was in good tilth, and by the further fact that the seed when tested in a germinating apparatus showed 99 per cent. of sound kernels. To test this variability in the planting of the different rows, one hundred and fifty (150) feet of one hundred (100) rows on the two opposite sides of the field were measured off for examination. As soon as the plants had seemingly passed the ordinary exigencies of the early growing state (July 7) and had secured a permanent hold upon the soil, the stalks in each row were counted. The enumeration showed variations in the number of corn plants occupying each row, extending all the way from sixty-two to one hundred and forty-three. * * * That we get from our corn fields nothing like what they ought to yield us, is the plain corollary of the above facts.

If the single operation of planting, important as it is, affects the crop so materially, what may we expect when to faulty seeding is added insufficient plowing and imperfect cultivation? The average yield of corn in Kansas during such favorable seasons as 1885 is reported by the Secretary of the State Board of Agriculture (see report Secretary Kansas State Board of Agriculture, 1885-6, p. 600) at thirty-three bushels per acre. The average yield of the State during favorable seasons ought not to be less than forty-five bushels per acre, and a little more knowledge, with resultant better practices, would carry the average yield of the great staple in Kansas up to fifty bushels per acre.

EARLY VARIETIES OF CORN

We have here almost universally the rich, deep, friable soil which the experience of all corn-growing communities has shown to be necessary to the perfect growth of the great staple. Moreover, here're the fervent summer heats and great length of growing season, so well calculated to bring the corn plant in all its parts, leaf, stalk and ear, to the greatest perfection. As a result of these natural influences, the corn plant in Kansas assumes the largest proportions; the stalks are coarse and very tall, the leaves are broad and long, if not numerous, while the ear is large and lifted far above ground, often above the tassels of the small-growing sorts, as was shown in our experiments. Small-growing, dwarfish corn is never seen in Kansas, except in cases where the seed used or

its immediate ancestors has been introduced from the North. And even these small-growing foreign sorts, when grown for a series of years in Kansas, tend rapidly toward the normal type. A variety of King Philip corn, grown on the College farm since 1876, and in this vicinity since 1872 or 1873, and kept pure meanwhile, is no longer a flint corn, while in size and habit of growth it more nearly resembles a medium dent sort than the familiar New England variety from which it is descended. All this shows clearly to my mind that those natural forces which have chiefly to do with "making" the corn crop in Kansas all favor the plant of largest growth. As to avoiding the hot winds: these are possible during every summer month, and our table shows that not one of the flint sorts grown by us last season would ordinarily escape them. Indeed, it is more than possible that the early-maturing sorts would suffer most from this cause, as July is the (to the corn crop) critical month.

* * * Taking the years together, the coarse, not necessarily the coarsest, or freest growing varieties will prove the largest yielding, the safest and the most profitable for general cultivation. For all this, it is wise, I am firmly convinced, to plant a portion of the corn ground each season to the medium or small-growing varieties. These sorts afford both grain and fodder far in advance of the coarser-growing kinds, and it will occasionally happen that the smaller sorts make a crop when all others fail. We have for many years grown a modified King Philip with satisfaction and profit. It is ready for the harvest two or three weeks earlier than any of the commoner varieties; it yields well both of corn and fodder, but it must be admitted that it is very often caught by the hot winds.

CORN AS A HAY CROP.

The weak point in the practice of Kansas farmer is the all but universal neglect of corn as a hay plant. It is far from my purpose to write in belittlement of the efforts so many of our best farmers are putting forth to secure grasses and clovers suited to our Kansas climate, but certainly the men who deplore the lack of tame grasses in Kansas forget that, so far as hay is concerned, they have in Indian corn and sorghum hay plants which, in our Kansas climate, are superior for most of the purposes for which hay is used to any of the so-called tame grasses in certainty of yield, quality and quantity of crop and ease in handling, if properly handled.

It is not my purpose here to dwell at length upon the different methods of growing and preserving fodder corn. That subject is properly reserved for presentation in a future bulletin of the Station. I only wish to say, that by planting corn thickly a large yield of the best fodder, together with a large crop of poor corn, may be had, and that very cheaply, as I have shown in the experiments of previous years. (See report of the Professor of Agriculture, Kansas Agricultural College, for 1888, p. 24.)

As to the best means of securing this fodder when grown, the silo doubtless is the cheapest and most satisfactory method of preserving the crop. But where the use of the silo may not be had, corn cut when the grain is in the dough state will cure perfectly, and may be preserved (fodder and grain) in the shock in almost perfect condition, until required for feeding in the winter.

CHINCH BUGS.

Early in the spring chinch bugs began to congregate upon the vivid green wheat plants in great numbers, so that it was soon apparent that the complete destruction of the wheat was only the question of a very short time. Following the general practice, all the plats were plowed under on May 9 and 10, and shortly afterwards harrowed and repeatedly rolled. This work was very thoroughly done, the wheat having been turned to the depth of eight inches. Nevertheless, thus imprisoned, an enormous brood of young bugs hatched, a large proportion—apparently-reaching the surface of the ground and passing directly to the adjacent crops, which received great damage from them.

PASTURING WHEAT.

It savors somewhat of attempting to "eat one's cake and have it," in pasturing growing wheat without diminishing its yield of grain. However, the practice can only be recommended in the case of wheat that was sown early in the fall and thus has been enabled to make a luxuriant growth. It is a

matter of common observation and experience, that this excess growth is often a cause of disaster to the crop. A further precaution that will occur to most practical men: pasturing of the wheat fields ought never to be permitted when the ground is muddy or even soft from rains.

KAFFIR CORN.

Planted May 30 in drills—one-half the rows thirty inches apart, and one-half three feet nine inches apart. A drought succeeded planting, and the seeds gave a poor stand. The plat was cultivated June 15, 30, and July 11, with a one-horse cultivator. The plat was attacked July 9 with the sorghum disease, and the growth of the young plants greatly checked, although few were killed. The plants grew four to five feet high, having a very thick stalk, and leaves large but few on a stalk, and the seed very large. The stalk is very strong, and will withstand any amount of wind. Owing to the inroads of the sorghum disease, the yield could not be determined, but, from other trials, it is known that this variety yields from thirty to sixty bushels per acre. The stalks have a harder shell than the other sorghums, and our cattle refused to eat them.

YELLOW MILO MAIZE.

Seed planted May 30 and germinated well, making a good stand. The plants grew well until July 9, when they were attacked by the sorghum disease, and every plant killed.

Farmers' Alliance Notes.

We receive a great many friendly letters from officers and members of Farmers' Alliances, for which our thanks are due and tendered. Here is a sample—a resolution adopted by the Cowley County Alliance: "Resolved, That the KANSAS FARMER be regarded as our friend and as worthy of our patronage."

The American Agriculturist for May says: "What a commotion it would occasion in some of the United States if the Grange or Farmers' Alliance should call a general convention shortly before a national or State election to arrange for a farmers' ticket! Yet that is just what the Victorian Farmers' Protective Association did in February."

Sumner County Alliance was organized was organized the 21st ult., at Dexter, by the selection of the following named officers: President, J. W. Chapman, of Chapman Alliance; Vice President, W. N. Ave, Bonner Alliance; Secretary, Wm. Russell, Star Alliance; Treasurer, J. P. Winner; Chaplain, D. Harrader; Lecturer, H. R. Walling; Assistant Lecturer, F. G. Houge.

The universal protest of the farmers of the West against the extortions of the binder twine trust has reached New York and other large manufacturing cities, and the visitor from the West is frequently interrogated about the movement of the Alliance in that respect. If manufacturers find that the farmers hold their own this season against so formidable a monopoly, they will be prepared and disposed to manufacture some substitute at a reasonable price to supply the demand for binder twine. This farmers' fight is being watched throughout the East with eagerness and interest. Will the farmer win the battle?

The colored farmers have taken hold of the Farmers' Alliance and in a circular gotten out they say: "To elevate the colored people of America by teaching them to love their country and their homes; to care more for their helpless and destitute, and to labor more earnestly for the education of themselves and their children, especially to improve themselves in agricultural pursuits; to become better farmers and laborers, and less wasteful in their methods of living; to be more obedient to the civil and criminal law, and withdraw their attention from political partisanship; to become better citizens and truer husbands and wives."

There were nine sub-Alliances organized in Sumner and Cowley counties last month up to the 23d day by District Organizer R. C. Bourdette, as follows: Drury Alliance, Secretary G. H. Goodhue, Drury P. O.; Crescent Alliance, Secretary I. L. Jones, Bitter Creek; Corbin Alliance, Secretary G. G. McCleary, Corbin; Fall Center Alliance, Secretary James Craig, Caldwell; Sumner County Alliance, Secretary Wm. Russell, Mulvane, all of Sumner county. Rolling Home Alliance, Secretary T. M. Wasson, Kellogg; Vernon Alliance, Secretary D. T.

Bayless, Winfield; South Vernon Alliance, Secretary Geo. B. Oldham, Winfield; Darien Alliance, Secretary L. Woner, Rock P. O.

Gossip About Stock.

Our dairy folks will find something of interest to them in the new advertisement in this issue of Davis & Rankin, concerning butter and cheese factories.

Joshua Wheeler, of Jefferson county, last week purchased a fine young Bates bull from ex Gov. Glick's herd at Shannon Hill, near Atchison, Kas. It may be added that Mr. Wheeler has been buying his bulls from Shannon Hill farm the last sixteen years.

Sheep-growers will, no doubt, be interested in the article on wool in another column, which was furnished us by the senior member of the firm of W. B. Wilhelm & Co., wool commission merchants, Nos. 4 and 6 North Commercial St., St. Louis.

The Shropshire sheep are still advancing in popular favor, as stated in our reports last fall. The last volume of the American Shropshire Record, just out, shows that 2,587 animals are recorded therein. Western breeders can secure detailed information by addressing the Secretary, Mortimer Levering, Lafayette, Ind.

Scott Fisher, of Missouri, writes: "My pigs this season excel any I ever raised; have refused \$100 each for my premium sows and their litters. I have one of the finest herds in Missouri, now headed by Ben Harrison 2540 S. R., sired by that noted boar, Stemwinder 1214 S. R. and 7971 O. R. and out of Lady Crow L. (2172) S. R. and 4884 A. R. My herd is composed of the best blood in existence."

The American Agriculturist for May says that swine should be allowed to get to the ground as soon as it becomes dry and settled. Brood sows require plenty of succulent food. Bran, oatmeal, cooked oatmeal, etc., mixed in milk, are all good for them. But corn and cornmeal should be given with great caution, if at all. As soon as the clover is grown enough to afford them good pasture they should be kept on it, but it is not sufficient, and partial rations should be given twice a day.

Geo. Fowler will sell at public auction on May 10, at Lincoln, Neb., a large number of Herefords and Short-horns. His herd has long had a splendid reputation. Many of the Herefords to be sold are the get of the famous Anxiety bulls, Beau Real and Beau Monde, while a number of the females are in calf by these same bulls. A fine opportunity will be offered at this sale to get excellent animals which ought to be improved by Hereford and Short-horn breeders who can make it convenient to be present.

Z. D. Smith, Greenleaf, Kas., a successful breeder of swine and Plymouth Rock fowls, writes us: "Will say that I am well satisfied with my advertisement in the KANSAS FARMER. My herd is doing finely; will have 100 pigs for the season's trade. Pigs sired by Bruce, Jr., 2128 N. W. P. C. R. and Smith Stemwinder 2479 are coming of fine color and markings. No disease among hogs in this section." Mr. Smith's letter was accompanied by a neat circular giving list of some famous swine which he has in stock and for sale.

Breeders of Holstein-Friesian cattle have enjoyed such prosperity during the beef cattle depression that they are now the aristocrats of the cattlemen. The cattle kings of the range industry have been surpassed by these fanciers of the great dairy and "combination" breed of cattle. The American Association held an annual meeting recently at the Fifth Avenue hotel, New York. The Treasurer reported a surplus of \$29,310.05. The membership now numbers 243. The total number of animals recorded by this association is 445,447. The fee to members for registering females is 50 cents and for males \$5; non-members pay \$1 for recording females and \$6 for males. The association, in order to weed out the inferior males, offer a premium of \$5 for each American-bred male, eligible for registration, that is killed or castrated after it is over five days old and before it is fifty days old. A affidavit of owner must be made out in form on blank furnished by the association. The new-old Secretary is Thos. B. Wales, Jr., of Iowa City, Iowa.

No Injury to the Pennsylvania Lines from the Courts' Decision.

The decision of the United States court against the vestibule on Wagner sleeping cars does not in any manner whatever unfavorably affect the Pullman vestibule cars originally placed upon and still running over the great and popular Pennsylvania system, but on the contrary bears the highest testimony to their value.

This vestibule improvement establishes the sleeping car equipment of the Pennsylvania Lines as in the lead of all its competitors for New York passenger traffic, and the immediate connections which are made with "The Pennsylvania Limited" and "The Pennsylvania Special" through either Cincinnati, Indianapolis, St. Louis or Chicago bring those accommodating and successful trains, with the new, magnificent and incomparable Pullman vestibule sleeping, dining and library car service, within the reach of all Eastern travelers at moderate terms and upon most acceptable conditions. They are unequalled on any other railway system in the world, and we therefore毫不hesitatingly commend them to all who desire unfailing expedition, luxurious comfort and absolute safety while traveling.

Planting Corn for Ensilage.

How shall we plant? A short, easy rule is this: Plant, cultivate and care for just as you would to secure the most field corn, just as you did before silos and silage were heard of. Of course methods will vary some with locality, soil, and the person who grows the crop. I prefer to plant on plowed sod which has been generously covered early the preceding winter with fresh barn-yard manure. As soon as our oats are in, this work (oat-seeding) is hastened by using a cut-away harrow in lieu of a plow. After the sod is plowed, the cut-away harrow is used to mellow it. I desire a deep, mellow seedbed. We aim to have our ground in readiness by May 20. It does not pay to hasten planting too much. When planted, the corn should commence at once to germinate, and should push up rapidly and vigorously, which is only possible with warmth and sunshine.

It is also a wise precaution that should never be forgotten, to test our seed before planting time arrives. This is especially important in case we purchase our seed. If we save our own seed, which is always wise, selecting the best, and hanging it in a warm, dry room, so that it will dry out early and thoroughly, then we may be pretty sure that every kernel will germinate; but even then testing makes "assurance doubly sure." This testing is a very simple matter. We have only to put a certain number of kernels in a box of moist earth about as we would plant them, and keep the box in a warm room. If all or nearly all send up the sprout, then we know our seed is good, and need have no solicitude in planting it.

I find I can grow the most corn with the least labor to plant in drills. I have no special corn drill—I doubt if the average farmer can afford to purchase one—so I use my grain drill. All but the two outside feeders are stopped up with wooden plugs. This makes the rows four and a half feet apart. In this way we put on about ten or twelve quarts of corn to the acre. Pretty thick, do you say? Yes, but corn is cheap; and if planted so thick the cut-worms can take some and yet do little harm, and we can draw up some and yet have enough for a first-class crop of corn. In thus drilling, we space every other row with the eye. With care this can be done so as to please the most fastidious. We must also watch the hose, lest they clog with some sod or clod and we drop no corn. In this way it is possible to plant ten acres in a half day. I like this method. It requires no machinery not already on the farm, it is a cheap and easy way to plant, and best of all, it has given magnificent crops of corn.

Nearly or quite as soon as the corn is all planted, especially if we have rains to compact the soil, I put a fine-tooth harrow to work. This may be very large, so as to harrow a wide space in once crossing the field. The teeth are small and slant back. By use of this the soil is mellowed, and the ever-present weeds just peering through the ground are uprooted and destroyed. This harrowing is continued till the corn is three or four inches above the ground, and the stalks so thinned that a maximum yield of corn is insured. As a result the weeds are largely vanquished, the corn is pushed to a most vigorous growth, so that it only remains to cultivate the crop with a spring-tooth cultivator till it becomes too large to work. Thus all hand labor is avoided, weeds are very scarce, even in the rows, and a good crop is secured. We must be sure to so thin our corn as to secure a maximum yield of grain. This will also add to the value of the stalks.—Prof. A. J. Cook, in "Silos and Silage."

Weather-Crop Bulletin

of the Kansas Weather Service, in co-operation with the United States Signal Service, for the week ending Saturday, April 27, 1889:

Precipitation.—The rainfall has been below the average in all counties except Shawnee and Osage. Throughout the larger part of the State no rain has fallen. A moderate thunder storm on the 23d in the eastern counties. Heavy dews have been a feature of the week. A light frost occurred on the morning of the 25th in Riley which extended to the north and northeast lines of the State, but did no damage. At the close of report hour, a thunder storm—which formed in Wabaunsee and Lyon—is moving eastward over Coffey, Osage, Douglas, Johnson and

contiguous territory, spreading out as it progresses.

Temperature and Sunshine.—The temperature has generally ranged above the normal but fell below that standard on the 26th, yet there has been a chilliness in the air, probably due to the high winds abstracting heat from the clothing as it had no sensible effect on the thermometer. But little cloudy weather, allowing a large amount of sunshine.

Results.—Full advantage has been taken of the fine opportunity for plowing offered by general absence of rain. Corn-planting has been pushed vigorously forward, while the early planted is being cultivated. The seasonable temperature and the abundance of sunshine with the large amount of moisture in the ground have proved eminently favorable for all growing crops, yet in the northwest counties a shower is desirable for the gardens. Wheat is two feet high in the southern counties and has begun to head; it is a foot high in the central counties. Rye is heading in central and southern. Apples, peaches, cherries, pears and plums are "setting" full, giving promise of an abundance, while the small fruits are equally as promising. Strawberries are nearly ripe in the southern tier. Chinch bugs have been unwelcomely numerous this week and especially so on the 25th. The high north wind of the 26th proved a veritable "sand storm" south of the great bend, which failed to benefit oats growing on sandy soil.

T. B. JENNINGS,
Signal Corps, Assistant Director.

The Tax Reformer.

We are in receipt of number 1, volume 1, of a new publication entitled as above. It is published at Santa Fe, Haskell county, this State, by W. V. Marshall, editor. It is a small eight-page pamphlet, the pages being about the size of those in an ordinary book. The *Tax Reformer* is "Devoted to the support of a system of taxation which will serve to prohibit excessive combination and monopolies, to promote and preserve competitive methods of industry, lighten the burdens of the weak, who are now made to pay a share disproportionately large." This little paper is starting in a new field of journalism. The subject of taxation is one of the most important with which our people have to deal. Ever since the world began, so far at least as history gives us any account of it, taxes have been levied upon the people in support of government in one form or another; it has been with the people as common as the air they breathe and the water they drink; and yet here we are almost at the close of the nineteenth century of Christian civilization, having been taxed all these 2,000 years and many years before that time, just on the verge of a discussion of this great problem. The *Tax Reformer* proposes a new scheme of taxation, which is, briefly, that large amounts of property owned or controlled by one person, or one company, partnership or corporation, shall be taxed proportionately larger than small amounts of property. To illustrate: It proposes to grade the tax from 1 per cent. on a valuation of \$1,000 to 2 per cent. on \$10,000, 3 per cent. on \$100,000, 4 per cent. on \$1,000,000, 5 per cent. on \$10,000,000, 9 per cent. on \$50,000,000, 10 per cent. on \$60,000,000, and so on. The object of this scheme is to prevent combinations of capital in large amounts by discouraging them—taxing them higher than smaller amounts. It is believed by the advocates of this system that it will tend to lessen the number of large and powerful combinations of men and money having for their object the regulation of prices and which in effect operate to oppress poor people. Whatever may be one's opinion of this proposed system, there can be no doubt that it would at least raise a much larger revenue than is now raised from capitalists if the plan can be successfully enforced. The KANSAS FARMER bids this new child of the press welcome, and wishes for it a larger measure of success than its editor and publisher probably expects. We would be glad to see the field it has entered fairly and persistently cultivated, to the end that a large crop of wisdom may be harvested from it. Taxation is really the great problem of the day.

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.

WOOL.

(From St. Louis Daily Market Reporter.)

The country has seen enough of the evils arising from hasty and unscientifically-manufactured so-called price lists or wool circulars, issued by bucksters and produce commission houses, flooding the country with them, and claiming to be the correct St. Louis market on wool; when the fact of the matter is they do not know any more about the grades, or what it is worth on a scoured basis, than they do about the 40 per cent. *ad valorem* tariff on woolen goods.

The matter merits the consideration of the grower before he ships his wool to these shot-gun commission houses who quote wool from 15 to 26 cents.

We are willing to admit that, in a free country, a grower ought to have the privilege of placing his wool where it can be sold to the best advantage; but not to mislead shippers with quotations in order to obtain their consignments and then have them dissatisfied with the St. Louis wool market, which we claim is the best in the United States for all Western wools, for they are sold for spot cash upon arrival, and the grower soon gets his money.

We solicit consignments of wool, and at the same time give you the true condition of the market, inclosing daily market reports of actual sales of different grades, and these prices and sales are quoted in all the leading and responsible papers and journals of the East and West.

Competition is essential to a perfectly normal condition of trade; but the competition should be honest and legitimate, otherwise a decline will follow.

Did not the sight of the boundless so-called wool circular you received, bearing on its bosom white-winged fleets of commerce, telling you of the booming market and high prices on wool, fill you with emotion? "Yes," replied the grower, "at first it did; but after a while, when I received my account sales, it didn't fill me with anything—it sort of emptied me."

We topped the market to-day on a lot of wool shipped us from Kansas and Nebraska, and will do so first, last, and all the time, for Kansas and Nebraska wools are worth as much on this market as Missouri, Illinois, or any other wools of same grade and shrinkage.

We believe that a fair comparison of prices of this with any other market will result unquestionably in favor of St. Louis.

The grower does not care to know how many sheep were killed by lightning last summer, nor what State produces the most wool, nor how much woolen goods the mills have on hand, nor how beautiful the past winter has been for sheep. They want to know how much per pound their wool is worth on this market.

My sales last year of Utah, Montana and Colorado wools meet with the growers' approval, and I look for sharp competition of these wools on our market this season.

WOOL.—Very little offering; not enough to test the actual condition of the market; but what does arrive meets quick sale at appended quotations. Sales: 35 sacks in lots; slightly mixed medium at 22a28c, burly at 16a17c to 19c, Kansas at 15a20c.

MISSOURI & ILLINOIS.—

Medium.....	22a24	KANSAS & NEBRASKA—	Medium bright.....	19a20
Low and Coarse.....	18a20	Coarse.....	17a18	
Light Fine.....	19a21	Light Fine.....	16a17	
Heavy Fine.....	18a17	Heavy Fine.....	19a20	
Slightly Burry.....	18a20	Colo., Nev., Territory	Medium.....	1a18
Hard Burry.....	12a14	Fine Medium.....	1a18	
Black and Cotted.....	17a19	Light Fine.....	16a17	
Medium, 12 mos.....	22a23	Heav'y fine erythra.....	1a14	
" 6a8 mos.....	18a20	Coarse & carpet.....	1a15	
Light Fine.....	18a20	TURWASHED—		
Heavy Fine.....	18a15	Caulo.....	.37	
Low, sandy, etc.....	10a12	Fair.....	.35a36	
Fall clip.....	10a17	Low, coarse, bkt.....	.35a33	

Respectfully,

W. B. WILHELM.

Publishers' Paragraphs.

The regular price of Swann's celebrated book, "The Future by the Past," is \$1. We have a limited supply which we will furnish a copy with the KANSAS FARMER for \$1.50, or will send the book free to any one sending four yearly subscribers and \$4.

The publishers of this paper have arranged to supply any number of "Ladies' Guide to Needle Work and Embroidery," a handbook to all the various kinds of needle-work. It contains 158 pages and 100 illustrations. Price 50 cents. Just the book for our lady readers. We will send it free to any one sending us two new subscribers and \$2.

Read the advertisements in the KANSAS FARMER, for you will find many hints and suggestions also much desirable information which you require. Our subscribers' column, on the last page, always contains numerous bargains offered by our readers. Please make it a point to state to the advertiser that you saw his adv. in this paper. If you want to buy, sell or exchange anything,

prepare, say a twenty-word adv., including your initial, name and address, and send us \$1, and we will publish it five weeks. You will be surprised at the results.

One of the publishers of this paper has been making a trip in the East, also on a visit to the Centennial celebration in New York. He expresses great surprise in learning that the KANSAS FARMER is so well and favorably known. Eastern parties regard it as the reliable exponent of Western agricultural resources and the pioneer farm journal of the West. They also say that a paper so well edited deserves 100,000 subscribers in Kansas. We appreciate their good will and propose to merit their expectations by the help of our readers.

Book Notices.

SILOS AND ENSILAGE.—A pamphlet of thirty-one pages, a comprehensive yet brief treatise of this important subject by Prof. A. J. Cook, of the Agricultural college of Michigan. Address the author at Lansing, Mich. Price 25 cents and very cheap.

HARPER'S MAGAZINE.—James K. Reeve, in *Harper's Magazine* for May, will draw attention to the steadily accumulating conditions which will in the near future make imperative the adoption in this country of closer and more enlightened methods of agriculture than now generally obtain among our farmers." He calls us "a nation of poor farmers."

THE STATESMAN.—This is a monthly magazine published at Chicago, Ill. It is devoted to the problems of practical politics, co-operative industry and self-help. The editors are Walter Thomas Mills, A. M., and Rev. A. J. Jenkins, D. D. Price \$2 a year. Address Statesman Publishing Co., Room 25, No. 179 Washington St., Chicago, Ill.

CHAUTAUQUAN.—The opening article of the *Chautauquan* for May is by Prof. J. A. Harrison, of Washington and Lee University, on "Physical Culture in Ancient Greece." He describes the ideal of education among the people of Hellas as a perfect equilibrium of soul and body, and shows how they worked to obtain it. The article is full of suggestions to modern educators.

THE WRITER AND THE AUTHOR.—These are two monthly magazines designed to interest and help literary workers. The *Writer* is now in its third year; both are meeting with success. The *Writer* is issued on the 1st and the *Author* on the 15th day of the month. Subscription price 10 cents a number or \$1 a year. Address "The Writer," Box 1905, Boston, Mass.

THE FORUM.—The political articles in the *Forum* for May are "The Republican Party and the Negro," by Mr. E. L. Godkin, editor of the New York *Evening Post*, who shows the impracticability of all plans to give special protection to the negro vote in the South, except the plan of allowing the Southern people to solve the problem themselves, citing evidence to show that the South is doing this as fast as possible; "The Saloon as a Political Power," by Mr. Ernest H. Crosby, of the New York Legislature, who argues the necessity of destroying the political influence of the saloon before dividing public attention as to methods of temperance reform, and gives many striking instances of corrupt political work done by saloon-keepers and brewers; and Prof. Emile de Laveleye, of the University of Liege, writes a political article (in the large sense), on "Perils of Democracy," reviving the new dangers that beset free governments. The Forum Publishing Co., N. Y.—50 cent a copy; \$5 a year.

Inquiries Answered.

STEAM PLOW.—Messrs. Trumbull, Reynolds & Allen, Kansas City, Mo., are poster manufacturers of steam plows.

SILK WORM EGGS.—Address Mrs. Mary Davidson, Junction City, Kas., Superintendent Silk Station, Parabody, Kas.

OVERCHARGES.—Mr. F. J. E. must make complaint to the State Board of Railroad Commissioners. Direct letter to "Secretary State Board Railroad Commissioners, Topeka, Kas."

The Zimmerman Machine Co., of Cincinnati, O., report that they are making preparations for a large sale of their Fru and Evaporators this season. They have just gotten up a valuable treatise on the subject of Evaporating Fruits and Vegetable which will be sent free to any one writing for it.

Topeka Weather Report

For week ending Saturday, April 27, 1889:

Date.	Muz.	Min.	Rain.
April 21	69	47	
" 22	76	37	
" 23	83	50	
" 24	72	48	
" 25	78	38	
" 26	65	49	
" 27	69	36	

NEW ADVERTISEMENTS.

Associated Fanciers	Poultry book.
Advance Thresher Co.	Advance Threshers.
Brigham, A.	Strayed.
Dietrich & Gentry	Poland-Chinas.
Davis & Rankin	Creameries.
Farrand & Votey	Safe investment.
Hubbard, T. A.	Swine.
Harder Minard	Fearless Threshers.
Hartford Compressed	Compressed air pump.
Air Pump Co.	
Lee, R. I.	McGregor stallions.
Zimmo, C. F.	Sweet potato plants.
Zimmerman Machine Co.	Fruit Evaporator.

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.

The Empty Play-House.

BY PHOEBE PARMALEE.

There's a copse in the garden,
Away from the house,
Where the brush and the hollyhocks grew,
When the summer was hiding
The bare earth with brome
And the birds 'mong the cherry trees flew.

A wee girl made a play-house
Close under a tree,
Hidden well by its green leaf and flower;
You might hear her while singing
Or peep through and see
How she lived in her fairy-like bower.

When the wind of the autumn
Swept all the trees bare,
And the birds and their songs had both flown,
Then I saw my child's play-house,
Its cupboard and chair,
All deserted and empty and lone.

A strange pang of bereavement
Which made my heart sore
Seemed to tell that my baby was lost;
That the place which had known her
Should know her no more—
But my grief was but fancy's slight cost!

Quick I hurried me into
The warm, cheerful room,
And I hugged my dear girl to my breast,
And I laughed at her wonder
And joyed that my doom
Was averted or only been guessed.

Do What is Next to Thee.

Do what is next to thee;
Love doth not measure;
If not thy pleasure,
Still thine the peace will be.

Do it with all thy might;
Brief is the living,
Blest those in giving,
As in God's holy sight.

Do it for Jesus' sake,
Though it be trying.
Sweet thy denying
His love can ever make.

Do it with all thy strength;
Be not delaying,
But swift obeying,
For night will come at length.

Do with all care and zest;
Patient in doing,
Watchful, pursuing;
So life's long days are blest.

Do thou with prayerful heart,
Always rejoicing;
Let thy sweet voicing
Some good to all impart.

Do what is right and meet;
Wait not the morrow,
So shall not sorrow
Burden love's willing feet.

The Churchman.

I dwell amid the city,
And hear the flow of souls in act and speech,
For pomp or trade, for merry-make or folly.
I hear the confluence and sum of each,
And that is melancholy!
Thy voice is a complaint, O crowned city,
The blue sky covering thee like God's great
pity. —Mrs. E. B. Browning.

WOMEN'S TEMPESTS.

When a young man in a burst of confidence tells you what kind of a girl he intends to marry as soon as he finds her, he invariably stipulates that she must be amiable. Sometimes he calls it good-tempered, sometimes easy-going, sometimes jolly, for our *jeunesse doree* are not, as a rule, exact in their use of language, but he means the quality which to my mind is best described by the term sweet-tempered, and I generally apply to him, in one form or another: "Certainly. That is probably the one virtue whose presence makes home a home, instead of a stopping place; but do you find within yourself the traits that will meet and reward such a royal gift?"

My young man generally confesses that he does not, and parades various extenuations for a man's irritability or violence, or, worst of all, moodiness of temper, and still insists that the wife, to be a model wife, should be provided with supererogation of sweet temper than she can not only contribute her share but her husband's share of amiability as the family stock.

Well, I don't wonder that the young man has this desire, and I quite agree with him

that a truly sweet temper is one of the choicest gifts the fairy godmother can bestow upon woman, and—I only hope he may find it!

In going about the world and receiving the confidences both men and women so freely bestow upon some of us, one cannot but see with mingled wonder and pity how many women spoil their own lives and destroy with their own ruthless fingers the illusions clothing every bride in her lover's eyes, just by giving way to their little tempers. "Little tempers!" The phrase always suggests to me that other phrase of "the little foxes that spoil the grapes." If the tempers are really little they should be very easily restrained, and at least hidden, even though, like the classic little fox of the Spartan boy, it gnaw deep in its concealment. Of course it is easier to let your foxes run free, and when the joint proprietor of the vineyard says the grapes are spoiled, to exclaim, "Oh, but it was such a little one! How can you make a fuss over that?"

Woman's nerves are lightly set; the jar that sets them all in a thrill passes unfelt over the heavier organization of the man; the breeze that to him is only a pleasant stimulus is to her a devastating storm. Last night's ball or the theater party or reception is to him a slight feeling of weariness, to be dissipated by a cold bath and an extra cup of coffee, while to her it is the waste of a week's ordinary vitality. Her nerves are on edge, her vitality depressed, her mental spectacles indigo-blue. The husband perhaps is a little surly, perhaps a little teasing, perhaps unwise brings up some sore subject or proposes some unwelcome plan. Very little is enough, and the wife lets loose the little foxes who snap and bark and drag down the fair clusters of grapes, until at last the angry man rushes from his home muttering a man's almost brutal phrases of wrath, and the wife remains weeping among the torn clusters of the domestic vine. Or, again, she has been all day worried and worn with domestic cares. They are not rich, and she has to do a great deal with a very little.

She does not want the children to fall behind their natural comrades in schooling or accomplishments or dress, and she has to supply with her own fingers and her own tired brain a great many little devices of the toilet and of amusement that other mothers can buy. She grows a little weary of the constant struggle, and her thoughts revert to a richer suitor who could have spared her all this and set her on a pinnacle far above the woman whose children hers are emulating, and, after all, perhaps it would have been better. Just there she stops, a little frightened at her own thoughts, but when her husband comes home, also tired, also discouraged, also a little disgusted with life, he finds his wife silent, or, as he presently decides, sulky, and disposed, if he talks to her of his business worries, to hint a very disparaging opinion of his ability and methods. Naturally the man resents this attack upon his prerogative of superior wisdom, and this time it is not a "tiff," but a downright quarrel that ensues, and perhaps that vineyard is never quite the fair and fragrant place it was before.

Or, the servants are provoking, and when reproved become impertinent, and the mistress loses her own temper and indulges herself in scolding the delinquent, who vaguely feels that she has after all won the victory, for she has dragged her mistress down to her own level, and the worst of it is that the mistress feels the same humiliating certainty.

Or, the children are tiresome and wearing, and the tired and nervous mother either can not or will not leave them to the care of others, but yet neutralizes her weary self-devotion by sharp reproofs, sarcasms that sink far deeper than she knows, or angry blows that only harden instead of disciplining the child.

Then there is a temptation to be simply cross that assails every woman, though she may have neither husband, child or servant to spend it upon, and this form of ill-temper is perhaps the most subtle and dangerous of all that assails a woman's soul, for it is all-pervading.

You wake up in the morning cross, your toilet is vexatious and unsatisfactory, your breakfast is altogether distasteful, and you are tempted to be sharp with the servant who brings it to you. The weather is just the kind you most dislike, the person you

wish to see is not at home, and the one you don't want to see finds you at home. Everybody chooses disagreeable topics of conversation and you nearly quarrel with your best friend about the make-up of the new Cabinet, although you care as little about it as you do about most things. The whole day goes wrong until either time, or your own resolution, or the advent of some bright, sunny, resolute friend drags you back to good humor almost despite yourself.

Yes, the little tempers are very various, and many of them very contemptible, but for all that their aggregate force is something tremendous, and, given time and liberty enough, they will not only spoil the grapes, but ruin the whole vineyard and lay it waste.

Did you ever hear of the man who, when told that he was to go to his wife's funeral in the same carriage with his mother-in-law, replied mournfully, "Very well, if you have arranged it so, but it will spoil all my pleasure."

I always felt that the dead wife and her mother had given way to a great many little tempers, before the widower's grief found instinctive utterance after this fashion. I dare say the man was "aggravating," and perhaps worse; I dare say the wife and her mother could have said a great deal on their side of the question, and of one thing I am quite sure; if the case had been reversed, the widow would not have said, because she would not have felt, that it was a pleasure to go to her husband's funeral. For here is a truth which I present to the consideration of my sister women, and I assure them that it is the fruit of much observation and study of mankind. A woman's little tempers will in the course of years make an impression upon a man's estimate of her that no after time can undo; while if she once truly loves him, years of bickering or even ill-treatment on his part are wiped away and forgotten by the caresses of his returning love, or by the faltering farewell of his dying breath. A woman's resentment of the little offenses offered her by the man she loves is like the sand upon the beach, so lightly ruffled, so easily heaped into chasms and mountains, but so sure to be placated by the return of the tides so easily returned to the full integrity of its original condition. But the man's consciousness of injuries is like the rock lying so stolidly upon that shifting beach. The winds blow the sand across him, but it soon blows off again. The waves dash over, and seem to leave no mark, but the years go by, and twice every day the sand and the waves together grind away a little and a little of the substance of the rock, and after many years if the sand says, I am tired of this useless warfare, let us be as we were at first, the rock must sadly answer nay, that cannot be, for the years have worn away what no years can restore; we can only make the best of what is left.

Of course I do not mean that it is only the woman who is to blame in this condition of things, nor that a woman is any more bound than a man to restrain herself and do or leave undone whatever makes for peace in the home, only it is a certain truth that a really sweet-tempered woman will reap more love while she lives and more tears when she dies than a woman who indulges her little tempers, no matter what virtues she may bring forward to counterbalance them.

But, after all, what is a sweet temper? So many things are sweet that are not therefore agreeable—the nauseous sweet of certain medicines when the odious sub-taste pierces through, and one loathes them all the more for the sweetness, and the mawkish sweet of whey and certain kindred preparations, and warm eau sucree and the mild tisanes they dose you with across the seas in rural parts. No, to be sweet-tempered in any of those ways is hardly better than the little tempers. There must be a richness, a body to the sweet to make it delicious; there must be a piquancy to relieve it of monotony. To my mind, there is something very alluring in the taste of honey, for in spite of the intense sweetness and the richness, there is a certain subtle reminder of the bee's sting, a certain piquancy suggestive of the deadly sting that fellow would have made if some brother bee had tried to forestall him in the lily's breast. There is a tang of animated life as well as the breath of flowers about honey that makes its sweet to me different from all other sweets, and

the nearest type of nature to the sweet temper so much to be desired in woman.

A sweet temper, then, is a temper with force and life enough to blaze up in righteous wrath when proper occasion calls; for I pity, nay, I despise the man or woman who can not be angry at sight of cruelty, or insult, or deceit, or baseness—a "pan of skim milk" that can not be "moved to honorable enterprise"—it is a temper that can perceive matter of annoyance and refuse to notice it, a temper that even in the moment of annoyance can suggest to itself excuses for the annoyer, a temper that can pass over that moment and revert to better things in the past or look forward to them in the future, a temper that never loses sight of love and its obligations, a temper serenely powerful over speech and affectionately allied with self-respect, a temper whose owner never has to say, "I forgot myself," and never does say, "I told you so;" a temper quick to forget injuries and accept atonement, and retentive of favors and loving words; a temper that can find fault without rousing angry passions on either side, that can reprove a servant without loss of self-control or of gentle dignity, and can rebuke or punish a child without shaking either its love or its respect.

Yes, my young friend, when you marry, by all means secure a sweet-tempered woman for your wife—that is to say, if you can find her and she will accept you. But having found your *rara avis*—and I assure you the bird does exist, for I have seen it—pause, before inviting it into your cage, to question with yourself what inducements you have to offer and what qualities you feel yourself possessed of that will make the bargain an even one and render you worthy to possess heaven's last best gift to man.—*Mrs. Frank Leslie, in Sunday Capital Commonwealth.*

Dust-Shedding Fabrics.

The return of dust-shedding wool fabrics can be no longer a matter of doubt. The day of the beautiful dull *male* rough-surfaced woolen has gone by. It is more becoming than *glace*-finished fabrics; it lends itself gracefully to intricate drapery, but it catches the dust and in spite of every care soon becomes unfit for wear. A variety of fine goods is shown in market, which supply the demand for a light wool dress which will shed dust. There are mohairs in all colors and black, in plain, striped and figured goods. There are cameline silks, an old goods under a new name, being a durable weave of old-fashioned wool poplin, and there are also many serges woven in the firm finish of French goods, which supply the season's demand.

The new mohairs are shown in all the dark shades and light tints of the season. All colors in woolen goods are more decided this season and have less of the *fade* tint of the last few years. Pure shades of gray and of Suede color, darker tobacco-brown, reseda green, grayish steel-blue, sand-gray colors and rush-green tints, known this season as dragon green, are all shown in mohair, in stripes and plain colors, which will be used for entire suits or in combinations. Black mohairs or brilliantines will be combined with black moire silk and satin surah, or made up in solid gowns. Dresses in fine stripes in solid color in sand-gray, dark steel-blue, or dark green are exceedingly pretty and make traveling dresses and driving dresses which will shed the dust. Some of the prettiest mohairs are finished with stripes of silk or mohair as a border. These striped borders then constitute the entire trimming of the dress. White and pale-tinted mohair dresses figured in conventional and realistic patterns will no doubt rival challis this summer for afternoon wear. They are not as pretty and becoming as challis, but they wear so much longer without showing soil, that economical women will prefer them. These dresses will be made with short, full Recamier waists, full skirts, with sashes at the waist, or in some simple manner in Empire style, with trimmings of dark velvet. Pale white grounds of mohair strewn with grass and leaf patterns and finished with cuffs, collar and panels of dark grass-green velvet are especially pretty. These mohairs are also pretty in the pale rose tints with trimmings of black velvet, rose and black being a favorite combination of color.—*Good Housekeeping*.

Use the great specific for "cold in head" and catarrh—Dr. Sage's Catarrh Remedy.

The Young Folks.

Triumphal Song of Labor.

Come all ye soft-pated sluggards,
Lend ear while I bravely sing
Of the strong right arms, whose muscles
Doth make the anvil ring.

Turneth the sward into furrows,
Scattering seed as they go—
Wieldeth the ax over forests,
Laying the wilderness low.

Changeth the channel of rivers,
Enslaveth electric fire,
Ladeth the ships for a voyage,
Roofeth fair Minster spire.

Paveth the way for the engine,
Buildeth the mills on the streams,
Saveth and thresheth and reapeth,
Driveth the oxen in teams.

Thus some do toil in the workshop,
Some in the meadows and field,
Some on the ocean and rivers.
While some a power doth wield.

From the bar, the counter and pulpit,
And some by means of the pen
Swayeth with wonderful magic
The minds and the hearts of men.

Even the minstrel adds his quota
In the songs he softly chants
Of the secrets gleaned while musing
Alone in favorite haunts.

He weaveth from dreamy tissues
Many a wilder lay
That echoes through gloomy chambers
Of souls enshrouded in gray!

We live on a wide-awake planet;
We live in go-ahead times,
So on the thread of Progression
I'll string together my rhymes!

I'm Labor! the wondrous pivot
'Pon which the great world doth turn,
And with the strength of a giant
All sluggards I from me spurn!

While unto my deep, wide bosom
I gather all who may toil—
Be they serfs or princely merchants,
Or homely sons of the soil!

They kneel at my shrine—I love them
And deck their brows with a crown,
Kissing, with many endearments,
The hands so horny and brown!

All honor to sunburnt workers
In the world's great busy hive!
Honor, and the victor's laurel
To those who manfully strive

With brain and with will and muscle
The Ladder of Life to climb,
A proud name winning, and leaving
"Footprints on the sands of time!"

Hurrah! for glorious manhood
Unbending and staunch and true—
Manhood that dares to be honest
Whatever others may do!

That scorns a scoundrel's bribing
Nor sells his honor for place,
Fighting like valiant warrior
For his rights, country and race!

I'm the "hub" of this earth, certain,
And the pond'rous ball of time
Wer't not for my constant turning
Would be drowned in floods of crime!

I strengthen the feeble muscles,
I cause the soul to expand—
Unfolding a beauteous flower
Neath touch of my plastic hand!

Then avaunt! ye soft-brained sluggards!
Go and glove those milk-white hands;
Or else ye will leave no "footprints"
"Pon time's swiftly-shelving sands!

I'm afraid the rain will quench you;
I'm afraid the sun may brown,
And those veiled impassive features
Be frozen into a frown,

At the glimpse of a hoe or spindle
Or aught that looks like a tool—
Ugh! but I never could express
My hate for a stark-born fool!

If a trace of manhood's in you
Or you have one ounce of pride,
Wake up! unglove and go toil in
Life's vineyards so grand and wide.

—Emma Louise Pierce.

SIX WAR SHIPS LOST IN A STORM.

[We thought our young readers would be pleased to read the following graphic sketch of a storm which carried away six ships of war and dashed some of them to pieces on coral reefs.]

(Continued from last week.)

The natives swam into the surf far beyond a point where a white man could have lived and stood waiting to save any poor creature who might rise from the water. There was no thought of the war between Germany and Samoa. There was no sign of enmity against a people who had carried off their King and banished him on a lonely isle a thousand miles from his native land. The savage forgot the oppression which a civilized people placed upon him. He now held out his hand to save a human life, caring little whether it was friend or foe. At first it seemed as if every man on the ill-fated steamer had come to his death. Not even a hand appeared from the depths where the Eber sank. But the breakers on the reef had hidden a few struggling men who had

come to the surface and struck out feebly for shore. Presently a man who had not been noticed before was seen clinging to a piling under the small wharf near by. Willing hands soon grasped him and drew him upon shore. He was a young man with a handsome, boyish face, and wore the uniform of an officer. He proved to be Lieutenant Gaecke, and was the only officer of the Eber who was saved. He was in a dazed condition, and unable to realize his escape. Lieutenant T. G. Fillette, the marine officer of the Nipsic, who has been in charge of the guard at the American consulate for several months, took the German officer by the arm and led him to the consulate, and provided him with dry clothing.

It was 6 o'clock in the morning when the Eber foundered. During the excitement attending that calamity the other vessels had been for the moment forgotten, but it was soon noticed that the position of several of them had become more alarming. The Adler had been swept across the bay, being for a moment in collision with the Olga. She was now close to the reef and about 200 yards west of the point where the Eber struck. Like the Eber she was

APPROACHING HER DOOM broadside on. In half an hour she was lifted on top of the reef and turned completely over on her side. Nearly every man was thrown into the water. Fortunately, however the Adler was thrown so far up on the reef that when she turned over on her side nearly the entire hull was out of water. Her deck was right angles with the water, and was facing the shore, consequently that portion of the vessel was well protected from the storm. Most of the men who were struggling in the water had but a few feet to swim to reach the deck, where they clung to the guns and masts in safety. Of the 130 officers and men aboard twenty were drowned or killed.

THE NIPSIC got well away from the reef after she struck the Lily, and the men had attached a hawser to the heavy eight-inch rifle on the forward deck and were preparing to hoist the gun overboard to assist her anchors when the Olga bore down upon her. The Olga struck the Nipsic amidships. Her bowsprit passed over the port side of the Nipsic, and after carrying away boat and splintering, all came in contact with the smokestack. The smokestack was struck fairly in the center, and it fell to the deck with a crash like thunder. It was difficult to realize for a moment what had happened. Great confusion occurred, and the crew believed the steamer was going down, and the men ran up the rigging for safety. The officers allayed their fears as well as they were able. A few moments after this the Nipsic was on the reef.

By this time every man aboard had crowded on the forecastle. The natives rushed down near the bow of the steamer and shouted to those on deck above to throw a line. A double hawser was soon made fast from the deck to the shore and the natives gathered around the lines to assist the men off.

Senmann Tafa, chief of the Apia district, and Salu Ana, King Mataafa's secretary, directed the men in their work. The scene was one of intense excitement. The seas broke upon the stem of the Nipsic with awful force, and it seemed as if the vessel would be shattered to pieces before the men on her decks could be saved. The waves were rolling high on the beach, and the undertow was so strong that the natives narrowly escaped being washed out into the bay. The terrible force of the wind can hardly be imagined. The rain continued to pour, and the clouds of flying sand grew thicker every moment. Above the roar of the wind and waves could be heard the voices of the officers shouting to the men on the deck, mingled with the yells and the loud cries and singing of the Samoans, as they stood battling against the surf, risking their lives to save the American sailors. Nearly all the American and English residents of Apia were on the shore in front of the consulate, and there seemed to be a willingness on the part of every man to render whatever assistance was in his power.

ENSIGN J. L. PURCELL, OF THE NIPSIC, who had been on shore during the night, was up to his waist in the water helping to rescue his comrades from their perilous position. On board the Nipsic the excitement which had prevailed among the men just after the fall of the smokestack had subsided, and there was no attempt made to leave the vessel in disorder. Captain Mullan and several other officers stood by the rail where the hawsers were made fast, and directed the movements of the men. All who were in any way sick or injured were allowed to leave first, and after that the men came down the ropes quickly. The seas were rolling so high under the bows of the steamer that when the men had advanced ten feet down the ropes they would often be entirely submerged, and nothing but the noble efforts of the natives prevented them from being washed off and carried away by the current. As soon as each man would come within reach he would be grasped in the strong arms of half a dozen Samoans, and carried to the consulate. Most of the men had but scant clothing; a few had tied some articles in handkerchiefs, which they held on to firmly. Captain Mullan insisted upon being the last man to leave the ship. He finally found himself on the deck with Lieutenant John A. Shearman, and two sailors by his side. He ordered the sailors to

leave, which they did. The Captain, being unable to swim, did not care to trust to descending the rope by means of his hands and legs, as all the others had done, so he procured an empty water cask, which he attached to a hawser. When he was seated in the cask Mr. Shearman stood alone on the deck and started his commander down the rope. The Lieutenant then climbed down the rope in the usual way, and the Nipsic was left alone to battle with the waves.

Lieutenant Fillette, of the Marine Corps, who was in charge of the consulate, had anticipated the destitute condition in which the men would be and had ordered a quantity of dry clothing from a neighboring store. As the men were taken into the consulate he provided them with dry suits of clothes, and did everything possible to make them as comfortable as circumstances would permit. Vice Consul Alacklog and several other persons also assisted in relieving the men, and Dr. Dren and his apothecary were busy for several hours in administering restoratives to those who were exhausted.

THE NIPSIC, ADLER AND EBEB

were the smallest ships of war in the harbor. The four large men-of-war, Trenton, Calloope, Vandalia and Olga, were still afloat and well off the reef. Nearly all the sailing craft had come ashore. The Trenton stood well out into the bay, her steam and anchors barely holding her head up to the wind. The Olga was inside the Trenton, pitching and rolling terribly. The Vandalia and Calloope were close together, nearer the reef than the other vessels.

Meanwhile much trouble was being experienced ashore with the sailors who had been rescued from the Nipsic. There was no place of shelter for the men, and the dry clothing with which they had been provided was soon drenched. They had been at work all night without food, and it was impossible to give them breakfast on shore for some time. A great number of them visited saloons, and it was not long before many were intoxicated and looking for an opportunity to cause trouble. Lieutenant Fillette bent all his energy towards the work and during the whole day and part of the following night did everything in his power to relieve the men who were taken to the consulate, and also to preserve order among the sailors in the street. His guard of marines was very small and they were all needed at the consulate, but he used his men to the best advantage and they attended to their duty well. Several times during the day a number of drunken sailors went to the consulate and demanded dry clothing and a hundred other things which it was impossible to give them. It became necessary to keep them away from the building altogether to protect the government property there. Fillette talked to the men quietly but firmly, and it was due greatly to his efforts that serious trouble was prevented. A handful of marines stood by their officer and carried out his instructions faithfully. They were obliged to use force with the sailors several times during the day, and one or two unruly men were put in irons.

About 10 o'clock in the morning the excitement on shore, which had quieted a little just after the Nipsic struck, commenced to grow more intense. As the Vandalia and Calloope were in the most dangerous position, a collision between the two vessels seemed inevitable, and they were both bearing against the reef, near the point where the wreck of the Adler lay. The Calloope was nearer the shore, and her bow was close to the stem of the Vandalia. Great waves were tossing the vessels about, and they were coming closer together every minute. The space between the men-of-war was seen to close altogether, and suddenly the great iron prow of the Englishman arose high in the air on the crest of an enormous wave, and came down with full force upon the port quarter of the Vandalia. The crash was awful. The jib-boom of the Calloope was carried away, and heavy timbers of the Vandalia were shivered. Every man who stood upon the poop deck of the Vandalia was thrown to his feet by the shock. A hole had been torn below the rail, and the water rushed into the cabin. It was impossible to ascertain the extent of the damage in a moment, but at the time it seemed that the Vandalia had received her death blow. Men rushed up the hatches in the belief that the steamer was sinking, and it was only after a great effort that the officers persuaded them to return to their posts. Just after this collision Captain Kane, of the Calloope, determined to make an effort to steam out of the harbor, as he saw that to remain in his present position would lead to another collision with the Vandalia or throw his vessel on the reef. He accordingly gave the order to let go all anchors. The Calloope's head was swung around to the wind, and her powerful engines were worked to their utmost capacity. It was an anxious moment on board the corvette as, with her anchors gone, she had nothing but her engines to depend upon to keep her off the reef. The steamer seemed to stand still for a moment, and then the rapidly-revolving propeller had its effect, for the vessel moved up slowly against the great waves, which broke over her bows and flooded her decks from stem to stern. Clouds of black smoke poured from her funnels, and fresh fuel was thrown into her furnaces. Every tension was strained in a desperate struggle against the storm. She seemed to make her headway at first inch by inch, but her speed gradually increased until it became evident she could clear the harbor. As she passed abreast of the Trenton a great shout went up from over 400 men aboard the flagship, and three hearty cheers were given for the Calloope. "Three cheers for the Trenton and the

American flag," was the answer that came back across the angry waters.

The Calloope passed safely out of the harbor and steamed far out to sea, returning after the storm abated. She sustained little injury outside of the loss of all her boats. When the excitement

ON THE VANDALIA,

which followed the collision with the Calloope, had subsided a little, it was found necessary to act quickly to save the ship. Lieutenant J. W. Carlin, the executive officer, was practically in charge of the vessel, as Captain Schoonmaker had been thrown across the cabin the night before and severely injured. His head had been badly cut, and one ear was almost torn away by his striking violently against a chair. Notwithstanding his injuries, he faced the storm like a hero, and stood by the side of his first officer until the sea finally swept him off to his death. He was in such a dazed and weakened condition, however, that he was able to do but little towards directing the movement of the ship. Of all the officers who stood by their posts and did their duty nobly in the face of danger, none have received more commendation than Lieutenant Carlin. Officers and men alike speak of his conduct in the highest terms of praise, and say his cool and calm demeanor kept the men at work when the panic was almost breaking out among them. Carlin had been on duty since the morning before and had not tasted food in all that time. Though weak and exhausted he kept his position by the side of Captain Schoonmaker and Lieutenant J. C. Wilson, the navigating officer, and encouraged every one around him. The Vandalia was now fast bearing down upon the reef alongside the wreck of the Eber, and hundreds of people who were watching her from the shore expected to see her strike and go to pieces every minute, but she was seen to move away from the reef and make slight headway toward the point where the Nipsic lay. Captain Schoonmaker and Lieutenant Carlin saw it was useless to make any further attempt to save the ship, and as the engines were not powerful enough to steam out to sea as the Calloope had done, they determined to beach the vessel. Two of her anchors' chains were slipped and a full head of steam was put on, more than she had ever dared carry before. Past Assistant Engineer Webster was in charge of the engine room, and he required his whole force of men to exert themselves to the utmost to keep the fires up and the engines going.

(To be continued.)



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A TWENTY-PAGE WEEKLY.
Published Every Thursday by the
KANSAS FARMER COMPANY.

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KANSAS FARMER BUILDING,
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Every advertiser will receive a copy of the paper free during the publication of the advertisement.

Address all orders,
KANSAS FARMER CO.,
Topeka, Kas.

The Horseman has changed quarters, and is now in the new offices at 323 and 325 Dearborn St., Chicago.

The 17th annual meeting of the Anderson County Fair Association will be held at Garnett, Kas., August 27, 28, 29 and 30, 1889.

The Michigan House of Representatives, and the Missouri House, also, passed a beef inspection bill last week. Inspection is now the law in Minnesota.

It is asserted by anti-beef inspection papers that the law will destroy the market for large quantities of beef. It will simply let the farmers and local butchers supply it instead of the great packers at Kansas City and Chicago.

The Missouri State Horticultural Society will meet at Brookfield, June 4-6. It is desired that members and especially the committees will be present. Rates will be given on the railroad, entertainment provided free, and premiums given on flowers and berries.

Mr. S. C. Mason, of the Agricultural College Gardens, made some experiments this spring with weeviled peas, in order to test the truthfulness of statements that a weevil hole in a pea does not affect its germinating properties. The test was made with 500 peas sound and a like number bored. Ten varieties were tested, twenty-five to one hundred peas of each sound and weeviled. The result was that of 500 sound peas 482 germinated perfectly, (96.4 per cent.), and of 500 weeviled peas 125 germinated, (25 per cent.)

Western Poultry Breeder is a new monthly publication, at Topeka, Kas., by Owen & Co., 520 Kansas avenue, subscription price 25 cents a year. The aim of this new candidate for public favor is "to promote the welfare and interests of poultry and pet stock culture in all its branches; to create a love for these industries in the hearts of the farmers, the working men, the boys, the girls, the women of our land, that through that love they may realize for themselves more of the enjoyments of this life, which of necessity will come to them by the proper study and practice of poultry culture." Send for a sample copy, and then try it a year. It will be 25 cents well expended.

THE OKLAHOMA COLLAPSE.

The KANSAS FARMER did not make much noise about the craze to get into Oklahoma, because it was evident that nothing short of experience would satisfy the boomers. We foresaw the collapse plainly because we knew just what there was in the scheme. Thousands of men, women and children would now be better off if they had taken our advice and gone on Kansas lands where schools and churches are established, instead of rushing blindly into a wilderness where nothing in the way of civilization had been done, excepting only the building of a railroad. And even that was denied to large numbers of people. There were ten persons eligible to every quarter section of land, so that nine of them, after waiting and losing other opportunities, were compelled to loosen their grasp on hope and come away landless, penniless and in some instances broken-hearted. One poor fellow could not stand it—his reason left him, and he was chained as a madman. The Oklahoma craze was a mania gotten up by speculators and gamblers. Plain, sensible people ought to have known better. The lesson of the collapse was needed probably, but in this, as in all similar cases, the poor and deserving are made to suffer, when the conscienceless scamps who led them into the trouble ought to bear the burdens of their own crimes.

Oklahoma was opened at 12 o'clock m., Tuesday the 22d day of April; 1889, and on Friday, the 26th day of the same month and year—just four days afterwards, the following letter was written in the new country by one who had gone to see the thing done:

OKLAHOMA CITY, April 26.—Never was country so absurdly overpraised. The portion of the Indian Territory opened up comprises the very worst land in it—land which even the Indians would not live on in any number. Railroad traffic is badly blocked, but an effort will be made to get this dispatch through to Arkansas City, the nearest point at which press messages can be filed. People are almost starving here for want of food. Last night, after a tired journey, your correspondent reached here. He could get no supper and had to sleep out in the open air, despite the very heavy dew. Nothing but the undeniable pangs of hunger could have persuaded civilized beings to eat the dirty biscuits and dirtier viands supplied at the place where the town of Oklahoma is to stand. This town is much smaller than Guthrie, and the location is much less suitable for a city, but greater enterprise has been shown in the way of building frame shanties, of which there have been quite a number put up. Of course they are of a very inferior construction. The same dishonorable tactics as described in connection with the Guthrie opening prevailed here. There were enough men on the ground before noon on Monday to grab up all the good lots, and shut out legitimate immigrants. There are three rival town companies and discord is general, though good order prevails. General Merritt's headquarters is at this point.

Postal matters are in a most deplorable condition. Settlers can not get mail and there is great dissatisfaction. Mail matter is piled to the roof of the motley little building, and it accumulates each day. The postoffice building is of logs set perpendicular; the sides are of corrugated iron, and the roof of rough boards. The roof boards are badly warped by the sun.

If anything could exceed the anxiety of boomers and speculators to get into Oklahoma, it is the frantic eagerness of quite a large proportion of them to get out of it. Never was a boom so enthusiastic, never was a boom more cruelly slaughtered in its early infancy. It seems impossible when looking at the crowded trains going out of the Territory to realize that it is only three days since the railroad company found it almost impossible to accommodate the invaders. Wagons are going out in hundreds, and one of them has on it the suggestive legend: "McPherson, Kas., is good enough for us, Oklahoma."

There are hundreds of vacant homesteads which men, after long and wearisome journeys to obtain them, have abandoned on account of their utter worthlessness.

Here are some extracts from dispatches sent out from Guthrie the same day:

"Yesterday a large crowd of gamblers struck the town from the East and rigging up their devices in the streets at once added considerably to the picturesqueness and uproar of the un-municipal town. There are at least half a hundred of "the fly" in camp and they have all kinds of devices. The cries of the "lemon! lemon!" vendors mingle with such invitations as "walk right up, gentlemen, chuck-a-luck, the old soldiers' game. Three to

win and three to lose." Last night the fakirs concentrated in a large tent and did a good business all night.

"There is something more wild and weird about a night in Guthrie than anything since the old wild days of California—the thousands of tents, some lighted, the tent glaring brightly about the candle, and the rest brought into vague whiteness against the darkness; the steady roar, the black, moving shadows of men suddenly emerging from the darkness into the light of some fakir's lamp; the fakirs themselves and the motley crowd with their rough clothes, bearded faces and gleaming revolvers in their belts.

"The salvation of the town is the fact that there is very little whisky in the camp. With all the difficulty over claims there is little real trouble. Every man realizes that trouble here means the worst kind of trouble and he is not seeking it. With whisky abundant, however, blood would flow as freely as the whisky.

"The only danger from firearms is that some one will be killed by the reckless shooting that is done all over the camp by tenderfeet who are not familiar with the use of weapons, and shoot off their pistols and Winchesters every night simply because there is no law against it. Guthrie is full of huckster shops of all kinds, and presents the appearance of the outside of a country fair, where peanuts, lemonade and sandwich venders are shouting in every direction and selling their stuff. A number of fakirs have been plying their vocation here, and five shell games were broken up by the military to-day. The games are similar to three-card monte, only a little worse, and several hundred dollars were won from unsuspecting greenies. There is considerable speculating in town lots, and exorbitant prices are offered for choice lots. One man is said to have refused an offer of \$1,500 for a corner lot. Real estate agents are busily engaged in selling lots, although most of the lots have several claimants. Part of the land has been homesteaded and part entered as town sites, and all has been squatted upon by settlers, hence endless litigation is sure to follow."

ONE HUNDRED YEARS OF AMERICAN HISTORY.

George Washington was inaugurated President of the United States at New York city, on the 30th day of April, 1789, one hundred years ago. Tuesday of this week the event was appropriately commemorated in all parts of the United States, one of the features being a recital of the country's history during the first century of our government's existence.

The KANSAS FARMER joins with its contemporaries of all classes in expression of gratitude for the progress we have made in that time. No other period of equal length in the world's history was so fruitful in the spread of liberty and in the work of genius. All Europe has been emancipated. Kings and emperors do still exist, but they are sovereigns only as executors of the law. The ancient prerogatives of monarchy are only memories now. Even in Russia the peasant has a vote in some local affairs.

It is here, however, in the country of Washington, where development and progress have been the most remarkable. The country is more than twice as large now as it was when our first President took the oath of office. Thirteen States then, some of them very small, now thirty-eight, most of them large, some of them larger than England, Belgium, Switzerland or Greece, and Texas is larger than any European country except Russia. Our popula-

tion is twenty times as large as it was then. When the first steamboat on the Hudson river was seen our government was eighteen years old, and not until it had lived forty years had we begun to carry passengers and freight on railroads by steam power. To-day our internal commerce, that carried on our railroads, canals, rivers and coast waters, amounts to more in tonnage and value than the entire foreign commerce of Great Britain, France, Germany, Russia, Holland, Austria, and Belgium. "The Pennsylvania railroad alone," says a competent author, "transports more tonnage than all Britain's merchant ships."

The number of persons who own farms now is equal to the entire population a hundred years ago, and the number of persons engaged in manufactures and transportation is equally large. In agriculture and manufactures we lead all nations, and there is only one civilized people—Russians—more populous than we. Then we sent 90 per cent. of our surplus farm products abroad, and imported about the same proportion of the manufactured goods we used; now we largely supply ourselves with manufactures and have market here for all but about 10 per cent. of our farm surplus. And while all this has been going on, our foreign commerce has grown from about \$40,000,000 in 1790, to about \$1,600,000,000 in 1888. We expend about \$100,000,000 annually for public education, and our churches have seating capacity for more than half the people. What will we be when another one hundred years have passed? Let us all pray the Great Father to direct our course and show us the way. We have done much and there is much yet to be done. The past only is secure.

STORING WATER IN PONDS.

One of our correspondents recently advised the collecting and storing of water in ponds for use on farms in case of need. We have often called attention to that way of saving water, and expect to do so in future. Its value is great, not to be estimated in dollars, and yet few farmers have given it a moment's thought. It may not be practicable on large farms, though we respectfully submit that the reasons which make it valuable on small farms will apply equally well on large ones, provided, of course, the same methods are adopted. Let us think about it. Say a man has a forty-acre farm, half of it in grass, half in other crops, fields two to four acres each, doing all the work within his own family. Say a five acre corn field needs rain, an inch of water all over it will save the crop; how big a pond will furnish the water? Consider a few figures.

The amount of rain water which falls on the surface of every foot of ground in the region of Topeka is fully three feet in depth, thirty-seven inches being the average at Lawrence during a period of twenty-one years. A pond covering one acre of surface, would catch water enough in the course of a year, if all of it were saved, to cover thirty-six acres once with one inch of water. Some would be lost by evaporation and some by soil absorption if the bottom and sides were not cemented; but the loss from these sources need not be more than 50 per cent., even on a roughly-constructed farm pond. That would leave water enough in an acre pond to cover eighteen acres once one inch deep. It would be equal to a two-inch rain on nine acres, or a three-inch rain on six acres.

That is what the water caught on one acre of ground will do. The pond need not be so large. When the surface lies well several acres of ground may be

used as a basin, the surface kept well sodded with blue grass, and the pond made at the foot of the draw. Then, by using water out of the pond several times a year, a much larger quantity of water can be utilized. Kansas—the eastern one-third—has more rain water during the spring and summer months than any of the States east of the Mississippi river, plenty every year to supply all that the growing crops need, if it were all saved and used as needed. But fully one half runs off into sloughs, creeks and rivers. A good collecting and storing system would remedy this. Ponds may be made deep, so that very large quantities of water could be stored in small surface space. One-fourth of an acre twelve feet deep would hold all the water caught on four acres surface in a year. By using water frequently, the dimensions of the pond may be proportionally decreased. Thus a pond twelve feet deep, occupying the surface space of one-sixteenth of an acre which would be about fifty-two feet square, or eighteen feet wide and 151 feet long, would be large enough to hold all the water collected from four acres of space.

How to construct ponds and how to move the water to the places where it is needed we will make subjects of other articles at other times.

KANSAS COMPARED WITH ILLINOIS AND INDIANA.

Mr. Secretary Mohler, of the State Board of Agriculture, in his report for the quarter ending March 31st, last presents some interesting statistics showing the average product per acre of wheat, corn and oats in the States named above, for the years 1882 and 1888 inclusive, with the general average for the period. Also, figures are presented showing the products of Kansas by parts, eastern, central and western, giving the average product per acre of wheat, corn and oats for the seven year period beginning with 1882, in the several counties in the different sections. It will be observed that forty counties in the western part of the State are omitted, because they were not in cultivation at time this seven year period began. The figures comparing the three States are taken from the department reports at Washington:

WHEAT—AVERAGE BUSHELS PER ACRE.			
Kansas.	Illinois.	Indiana.	
1882.....	19.9	17.7	18.5
1883.....	17.5	10.0	10.4
1884.....	18.5	11.6	12.5
1885.....	10.6	8.5	10.8
1886.....	11.4	13.7	14.8
1887.....	9.6	15.3	13.5
1888.....	14.7	13.0	11.3
Gen'l average.....	14.8	12.8	12.8

CORN—AVERAGE BUSHELS PER ACRE.			
Kansas.	Illinois.	Indiana.	
1882.....	33.7	28.0	31.3
1883.....	36.7	25.0	27.0
1884.....	36.9	30.0	32.0
1885.....	32.4	31.4	35.5
1886.....	21.8	24.5	31.9
1887.....	14.8	19.2	20.1
1888.....	27.0	36.2	35.0
Gen'l average.....	29.0	27.0	30.0

OATS—AVERAGE BUSHELS PER ACRE.			
Kansas.	Illinois.	Indiana.	
1882.....	27.0	40.7	26.8
1883.....	39.4	36.1	29.7
1884.....	35.0	32.8	30.0
1885.....	31.8	32.8	26.8
1886.....	28.4	31.8	30.7
1887.....	28.6	29.5	27.0
1888.....	24.0	38.5	27.0
Gen'l average.....	30.0	34.3	28.3

By the above table it will be seen—

First—That Kansas leads both Illinois and Indiana in wheat.
Second—That Kansas leads Illinois in corn by an average of two bushels per acre, and falls below Indiana one bushel for the period given.
Third—That Kansas leads Indiana in oats 1.7 bushels per acre, and falls below Illinois 4.3 bushels per acre for the period given.

Kansas aggregates 73.3 bushels of wheat, corn and oats for the seven-year period; Illinois 74.1 bushels, and Indiana 71.1 for the same period.

Considering that 1887 was one of the

most disastrous crop years in the history of Kansas, and that in 1888 a large portion of the State the corn crop was comparatively light, the showing is certainly flattering to the State.

KANSAS STATISTICS, GIVEN IN BELTS.

So much of late has been said of the distressed condition of farmers in central and western Kansas, that it has been thought well to give to the public statistics of Kansas belts, for a term of years, which is the only correct method of showing the true agricultural rank of a State or section.

The central belt was first located. The ninety-seventh meridian, or very near that, was taken as the eastern boundary, taking in the north the counties of Washington, Republic and Jewell on the Nebraskan line, and extending the breadth of three counties (90 miles in width) entirely through to the south line of the State, comprising in this belt twenty-two counties. Some of the counties in this belt extend east of the ninety-seventh meridian. The larger portion of Butler and Cowley counties are east of this line.

The eastern belt comprises the same number of counties east of the ninety-seventh meridian, having Brown, Nemaha and Marshall counties on the north, and stretch the breadth of three counties entirely through to the south line of the State, constituting about the same area as the central belt.

The western belt also comprises twenty-two counties, and extends from the west limits of the central belt to the one-hundredth meridian, having Smith, Phillips and Norton on the north, and extending in like manner the breadth of three counties to the south line of the State.

That portion of Kansas west of the one hundredth meridian is omitted in this showing, for the reason that these statistics cover a period of seven years, reaching back to 1882, at which time and for years later but little was done in that section in the way of growing farm crops, stock-raising being the chief industry then.

The following tables show the average yield per acre of wheat, corn and oats, by counties, for the term of seven years (1882 to 1888, inclusive,) for the respective belts, and the general average yield per acre of each of the crops, taken for the same term of years.

EASTERN BELT.

The table here with given shows the average yield per acre of wheat, corn and oats for the eastern belt by counties for the term of seven years, and the general average for the entire belt for same period :

COUNTIES.

Counties.	Wheat.	Corn.	Oats.
Marshall.....	18.1	36.0	37.4
Nemaha.....	16.9	35.5	38.7
Brown.....	17.1	39.1	39.8
Kiley.....	14.7	31.8	38.8
Pottawatomie.....	15.0	36.8	36.0
Jackson.....	11.7	32.8	33.0
Geary.....	14.6	26.5	38.8
Wabaunsee.....	13.4	35.0	32.5
Shawnee.....	13.0	30.0	37.1
Osage.....	18.6	31.6	34.3
Lyon.....	15.4	30.7	37.6
Morris.....	12.6	33.0	33.8
Chase.....	14.0	31.2	36.1
Coffey.....	16.0	32.0	37.6
Allen.....	14.3	29.3	32.6
Woodson.....	17.6	29.7	35.2
Greenwood.....	13.7	36.2	37.7
Elk.....	20.8	33.7	39.0
Chautauqua.....	19.3	30.0	41.4
Montgomery.....	18.1	28.0	32.3
Wilson.....	18.2	31.7	35.3
Neosho.....	15.3	31.0	39.3

General average..... 15.4 32.2 36.2

CENTRAL BELT.

The table below shows the average yield per acre of wheat, corn and oats for the central belt, by counties, for the term of seven years, and the general average for the entire belt for the same period :

COUNTIES.

Counties.	Wheat.	Corn.	Oats.
Washington.....	17.3	36.5	40.4
Republic.....	15.6	37.4	40.0
Jewell.....	16.1	29.5	36.0
Clay.....	14.7	31.7	39.1
Cloud.....	14.7	29.0	35.4
Mitchell.....	14.4	25.0	37.3
Dickinson.....	13.9	31.6	37.3
Ottawa.....	13.3	27.0	34.6

COUNTIES.

Counties.	Wheat.	Corn.	Oats.
Lincoln.....	14.4	24.0	32.8
Marion.....	13.9	25.6	32.4
Saline.....	15.0	23.4	29.0
Hillsworth.....	14.0	26.7	38.7
McPherson.....	13.4	25.0	34.4
Rice.....	11.8	25.4	34.0
Reno.....	13.6	28.8	35.3
Harvey.....	18.4	28.0	38.3
Butler.....	13.4	28.5	40.1
Sedgwick.....	14.4	33.0	41.8
Kingman.....	16.0	30.8	39.7
Sumner.....	14.6	30.8	39.7
Cowley.....	14.7	33.2	40.0
General average.....	14.8	28.9	36.9

WESTERN BELT.

The table below shows the average yield per acre of wheat, corn and oats for the western belt, by counties, for the term of seven years, and the general average for the entire belt for the same period :

Counties.	Wheat.	Corn.	Oats.
Smith.....	15.7	26.4	31.4
Phillips.....	15.9	30.1	30.7
Norton.....	18.4	26.1	32.5
Graham.....	11.3	15.3	22.9
Reeves.....	14.6	19.9	23.8
Osborne.....	14.0	23.5	31.6
Russell.....	13.0	17.9	26.0
Ellis.....	14.3	16.7	24.7
Trego.....	11.4	17.1	19.4
Ness.....	13.9	14.7	26.8
Rush.....	12.0	16.6	23.3
Marion.....	13.5	22.4	29.7
Stanford.....	12.4	23.3	29.2
Pawnee.....	11.4	17.8	29.3
Hodgeman.....	10.1	15.7	26.1
Ford.....	12.8	20.0	26.7

Horticulture.

FOREST PLANTING IN VIRGINIA.
A paper read at the third annual meeting of the Pennsylvania Forestry Association, in January, 1880, by Burnett Landreth, President of the Association.

Forestry, as practiced in Scotland, France and Germany, treats principally of the oversight of artificial woodlands, and the further extension of such plantations. In America we have 400,000,000 acres of natural forest, and none of artificial; 400,000,000 seems a large area—but of this from 5,000,000 to 7,000,000 acres are annually burned over by forest fires, and the rest is being cut so rapidly and wastefully that it will all be gone before a new crop of trees of saw-log dimensions can be grown; for to develop a white pine tree to saw-log size takes eighty years, and to develop a long-leaved Southern pine to saw-log size takes one hundred years. Now, what is to be done? Why, curtail, under State and national legislation, the wholesale destruction of our national forests till new forests are planted and developed.

Artificial forest development in Europe is the main feature. Natural forest preservation in America should be the main feature, planting being secondary.

Each man, however, who enters practically into forest work must take it up as determined by the conditions surrounding the district in which he proposes to operate. Now it happens that the personal work presented to me is not to preserve natural forests on mountain sides, but to endeavor to build up an artificial low-land forest.

In 1870, the senior of my firm, who had for a long life been a collector and planter of trees for ornamental purposes, till he had established a noted collection, conceived the plan of planting trees for forest purposes, on a large area of old farm land in eastern Virginia, where, on the lower Chesapeake, we held about 5,000 acres. The meteorological conditions of the locality may be briefly described by stating that the annual rainfall is forty-nine inches. The relative humidity, both during summer and winter, 73. The maximum temperature 103 degrees, the minimum 1 degree above zero. The wind in summer southwest, in winter from the north.

Of this tract about two-thirds was in natural and second-growth pine, with some hard wood interspersed. He decided to plant the open farm fields, and follow upon the stump-land as the forest was cut off. Experience had made very clear to us the wonderful reproductive capacity of the soil of tide-water Virginia, in reclothing itself with the natural pine of that region—*Pinus taeda*—Loblolly pine or old field pine, two variations of which are known to the wood-cutter—the Rosemary and the fox-tail. Still we thought it might be profitable to establish forests of varieties, both evergreen and deciduous, not common to that section, which would promise to be more profitable than the ordinary Virginia pine. The varieties of native deciduous trees found there comprise the chestnut, walnut, ash, oak and many others, but rarely occurring in forests of one variety always mixed; nature grows them that way. So we concluded to try the experiment of forest planting, which, if it were not profitable to us or our successors, might at least serve as a guide to outline the future course of others in that portion of Virginia. Accordingly, in 1870, we began operations, and in 1871 planted a field of one hundred acres with the nuts of the black walnut, depositing the nuts at one foot

apart in open furrows drawn at eight feet apart. We followed this by planting eight acres with the nuts of the chestnut.

The next year, 1872, we continued planting both tree seed and seedlings. Of seedlings we purchased and set out the following: 30,000 locusts, 5,000 cypress, 5,000 European larch. These we planted in solid blocks, 4x4 feet apart, intending that they should prune themselves.

In 1873 we planted tree seeds as follows: Four bushels locusts, twelve bushels chestnuts, one-eighth bushel larch.

In 1874 we continued the seed planting, putting in one hundred and fifty bushels walnuts, ten bushels hickory-nuts, twenty-two bushels chestnuts, one bushel larch, ten bushels catalpa, three bushels poplar, three bushels pecan, one bushel white oak acorns, one-eighth bushel Italian sumac. And of seedlings we set 2,000 Eastern catalpa, 5,000 Western catalpa, 75,000 black locust.

In 1877 we set out 10,000 catalpa, 1,000 white ash, 15,000 white pine, 1,000 Douglas fir.

In 1879 we set out 40,000 catalpa speciosa, 1,000 catalpa japonica, 150,000 catalpa bigonoides, 10,000 ailanthus, 3,000 Douglas fir.

Since the last date, 1879, we have set a large number of catalpa, and this winter will have about 100,000 seedlings to plant.

Now what has been the result? Much disappointment. But we do not despair of some success. I will relate our failures, and then the successes, if there be any.

We were first disappointed in the failure of the black locust plantations. The early groves reached a height of twelve feet, the later ones, of course, being less—the larger tracts forming most impressive studies. The trunks stocky, straight and limbless, the upper branches all interlaced, forming a solid roof, the midday sun seldom reaching the alleys between the trees. They gave promise of a fine locust forest, just such as we had pictured, but hardly expected to realize. Alas! one September the locust tree borer mysteriously descended in swarms upon our typical locust groves, laying millions of eggs, which produced myriads of grubs, which by the next midsummer had ruined every tree. We cut the trees down and pulled out the roots by oxen, the expenses of removal being \$25 per acre. We were done with the locust.

A description of the locust tree borer may be interesting. The mature insect is found in the locust tree in August and September, the eggs being deposited then in crevices of the bark, and hatching in ten days, when the grubs burrow into the soft skin or outer bark, where they remain in a torpid state during winter. In the spring they bore deeply, penetrating the hard wood of the branches and trunk, the passage being one-quarter of an inch in diameter, and sometimes a foot in length, and always upward—presumably to guard against the entrance of rain. The larva then becomes a pupa, when in about two weeks it emerges as a perfect insect, three-quarters of an inch in length, and in a gorgeous livery of black and gold. Limbs and branches suffering from the attack of this borer become distorted by swollen growths of unhealthy wood—efforts of the tree to repair the injury. Nothing will serve, however; the injury is done, and the limbs gradually break away till the tree stands a dilapidated wreck.

Next, the Swiss or Scotch larch gave out, piping of the trunks, the main stem breaking off at about twelve feet

in height. It did not promise well at any time, this tree doing best upon dry, rocky soils; ours was a sand with clay subsoil.

The next failure was with the Southern deciduous cypress. It disappointed us except in wet bottoms, so that we struck it off the list.

Of hickory and pecan, the nuts planted were, to a large extent, stolen by the squirrels, woodchucks and field mice, and those that did vegetate made such slow growth that we plowed them out and replanted the ground with catalpa.

The tulip poplar was not a success, the rabbits and field mice during winter ate off from the tender seedling the sweet juicy bark and destroyed nearly every plant.

The white oak acorns were largely stolen by squirrels, woodchucks, rabbits and field mice, which ate the bark of the young seedlings, as they did of the poplar.

The Italian sumac, planted for its leaves, still stands, but the percentage of tannic acid in its foliage is not greater than in the leaves of the wild Virginia sumac. So its cultivation does not offer much hope of profit.

Thus we have failed with black locusts, and deciduous cypress, Scotch larch, hickory, pecan, tulip poplar, oak, macula, wild black cherry, ailanthus, ash, mulberry, and some others.

Our successes have been principally in determining which varieties were not profitable to plant. Certainly in this respect we prospered famously. Our other successes, such as they are, have been achieved with four trees—catalpa, black walnut, white pine, Douglas fir,—two deciduous trees and two evergreen, and the two deciduous might be reduced to one, the catalpa. Of this, the catalpa, we have abandoned several tracts, and after most serious ravages by stray cows, half-wild pigs, rabbits, squirrels, mice and fire, have about 200,000 trees, ranging in height from two to twenty feet, according to the period of planting. They stand in rows six feet apart, many of the rows a quarter of a mile long, and promise to make, in time, fine forest studies, if not eaten up, for the catalpa has its insect enemies as well as other trees. Two years ago every tree was denuded of its leaves within a period of a month by the ravages of the catalpa sphinx—*Daremna catalpae*. They have gone, but they may come again, and may stay with us. Still, this contingency of destruction by insects unavoidably attaches to the culture of any forest tree. To describe the catalpa, I will say that there are two types cultivated for forest purposes, the Eastern and the Western (indicated botanically as *bigonioides* and *speciosa*), the latter, the Western, being most approved. The tree is hardy as a chestnut, of quick growth, the trunk and limbs, by reason of resistance to decay, being valuable for fence posts, gate posts and mudsills. I have a piece of gate post which stood in place one hundred years, and it is in a perfect state of preservation. The timber when sawed takes a fine polish and is handsomely marked in its cellular structure. The catalpa has been used in the West for railroad ties, and possibly it makes serviceable ones. By some forestry writers it has been extolled as superior to the white oak, but that is nonsense. Certainly these enthusiasts do not understand that a first-class tie must have other merits than resistance to decay engendered by moisture. The catalpa tie is deficient in resistance to the hammering of the rail under passing trains, and it is deficient in that adhesive power upon railroad spikes possessed by the white oak or chestnut. In oak very careful tests have proven that as much

Dress the Hair

With Ayer's Hair Vigor. Its cleanliness, beneficial effects on the scalp, and lasting perfume commend it for universal toilet use. It keeps the hair soft and silken, preserves its color, prevents it from falling, and, if the hair has become weak or thin, promotes a new growth.

"To restore the original color of my hair, which had turned prematurely gray, I used Ayer's Hair Vigor with entire success. I cheerfully testify to the

Efficacy

of this preparation."—Mrs. P. H. David-son, Alexandria, La.

"I was afflicted some three years with scalp disease. My hair was falling out and what remained turned gray. I was induced to try Ayer's Hair Vigor, and in a few weeks the disease in my scalp disappeared and my hair resumed its original color."—(Rev.) S. S. Sims, Pastor U. B. Church, St. Bernice, Ind.

"A few years ago I suffered the entire loss of my hair from the effects of tetter. I hoped that after a time nature would repair the loss, but I waited in vain. Many remedies were suggested, none, however, with such proof of merit as Ayer's Hair Vigor, and I began to use it. The result was all I could have desired. A growth of hair soon came out all over my head, and grew to be as soft and heavy as I ever had, and of a natural color, and firmly set."—J. H. Pratt, Spofford, Texas.

Ayer's Hair Vigor,

PREPARED BY
Dr. J. C. Ayer & Co., Lowell, Mass.
Sold by Druggists and Perfumers.

as a pull of 4,000 pounds is required to draw out a spike driven five and one-half inches. In the catalpa the adhesive power is not one-half of 4,000 pounds.

The second variety of deciduous tree which we have planted in large number is the black walnut. In tide-water Virginia it is found wild and of noble proportions. Our seedlings, however, have grown very slowly. For the first six or seven years they grow but a little more than four inches a year, and it is only when they become very deeply rooted that they appear to start off vigorously. The lowland soils, however, are not adapted to the development of the best walnut timber, the wood produced there being too full of silex. It will not polish as smoothly as timber grown upon a soft prairie soil. It is stronger and better adapted for the legs and rounded portions of furniture, but as a rule does not furnish handsome paneling.

Our walnuts, of which we have 150,000 trees, after as many have been destroyed and others abandoned, do not impress us as of much value, and for the present we will not plant any more.

Turning to the evergreen family, we have of white pine 14,000, a fine block of trees twelve to fifteen feet high, and now growing at the rate of two and three feet a year, quite as rapidly as the native loblolly pine. Our attention was directed to the white pine as flourishing upon our particular soil by a wild settlement of this tree in the midst of our yellow pine forest. Here we found a parent tree, ninety feet high, grown probably from a seed dropped by a bird of passage, possibly from far-off Maine. It has germinated, reached maturity, and developed seed, which falling around, had in turn germinated and developed seed-bearing trees, till now the growth of many generations of trees stand in concentric circles, this natural group clearly indicating the adaptability of the soil and climate. This example, and the results of our own plantations, make it quite evident that the white pine can be grown very successfully, the principal difficulty being in securing a stand in the first instance, as a large percentage of the seedlings die.

As the catalpa is the best of the deciduous trees, I think the Douglas fir is

the best of the two evergreens; it is equally as rapid in growth as the white pine, and if it reaches maturity and escapes the ills of forest life, it will be more valuable, one of its merits being in its early maturity; its long, tapering and light wood trunk particularly suiting it for ship spars, while on the other hand older trees reach vast proportions, and form a trunk far surpassing the white pine of Maine. The Douglas fir for Eastern plantations should be grown from Colorado seed, as the Oregon type is not so hardy. I would recommend that the white pine or the Douglas fir be planted in alternate rows, so that in case of destruction of either variety by insect depredations or soil influences, there may be the chance of the remaining variety reaching maturity. Indeed, all plantations should be mixed, for the same reason, but they must be mixed judiciously.

After eighteen years of practical forest planting on a small scale, I conclude that for the particular region of tide-water Virginia, and I think I may venture to say as well for tide-water Delaware, Maryland and North Carolina, there are only four trees to plant; and I conclude, also, that it is very questionable if it be profitable in that region to plant at all, so long as the wild pine will spring up in every field just as soon as annual cultivation ceases. How the seeds get there I do not know, for they will spring up in the center of a one hundred acre field simultaneously with their appearance upon its tree-fringed borders. This pine will start without plowing, and it will grow under the most adverse circumstances. It will take care of itself in spite of wild hogs and stray cattle. Fire is its enemy. In twenty years it will make twenty cords of brickyard wood to the acre, and for every year thereafter an additional cord or more, till at forty years it will cut fifty cords of first-class wood, the only expenses being the taxes, which, State and county together, do not equal one-half of 1 per cent.

The comprehensiveness and scientific detail of this subject of forestry is so well understood in Europe that the forestry schools are under the especial patronage of the governments, and they turn out annually a force of foresters whose education is as practical and thorough as that of any class of collegians.

We should have a United States Forestry School as well as a Military Academy. West Point is a noble educational establishment; it is worth much more than its annual cost of \$350,000; but we need a highly educated class of foresters to look after the National domain just as badly as we need military officers.

To enumerate the attainments of thoroughly educated foresters, I will say they should be botanists, quick to recognize fungi preying upon living trees and cut lumber, and to understand how to adapt palliative measures at least, if not entirely to arrest its extension—for example, the chestnut railroad tie has eight distinctly named species of fungi common to it. Foresters should be vegetable physiologists, to familiarize themselves with the structural development of trees and their sustentation. They should be entomologists, to recognize insects which prey upon trees, and provide measures for their destruction. They should be ornithologists, to aid and protect the birds which feed upon the destructive insects. They should be geologists, to understand practically and scientifically the composition of soils. They should be meteorologists, to study the practical condition of rainfall, temperature, wind and exposure. They should be agriculturists, to understand the work-

ing of land. They should be wood-cutters, mechanics and engineers, to fell the tree, to dam streams, to locate mills, to drain water, to establish water preserves, to erect barriers to arrest snow-slides, land-slides, shifting sands, to erect machinery to saw lumber. They should be merchants, to cut with judgment, to cut the right tree at the right time, and market profitably. Thus, it will be perceived, the subject is a deep one.

The matter of insect ravages alone is a most interesting and important study, for when we consider that the hickory has eighty-seven distinctly recognized and named insects feeding upon its roots, its hardwood, its bark, leaves, flowers and seeds, and that the pine has one hundred and two, and that the oak of this country has two hundred and one, the wonder is that a tree ever reaches maturity.

From Evergreen Fruit Farm.

"Which kind of strawberry is the best?"

This question is asked so often by those desiring to raise strawberries that we herewith compile a few of the notes taken in the last three years out of our strawberry record.

The Sharpless, in my location, the highest rolling prairie in Marshall county, is the surest bearer, and in flavor cannot be surpassed. It sold readily last season in Frankfort at 15 cents per box when other varieties were bringing only 10 and 12 cents. In some parts of Kansas, on the bottoms, berry-growers claim it is not a very good yielder, but in those places its quality is spoken of very highly. In plant growth it is very vigorous; and all through the last three dry seasons it took the lead in this respect. Out of the twenty-eight varieties on test in my experimental rows it shows up more good qualities than any other. There are some other varieties just as prolific in berries to the same number of plants, but there is no other so prolific in plant growth and duration of fruiting season, which continues one month with the Sharpless. Its roots are very long and grow deep down. This explains why it withstands drouth so well.

The Captain Jack has very long roots but they grow nearer the surface. The blossoms of the Sharpless have not so many stamens as some other varieties, but with me it has always borne sufficient pollen for complete fertilization. I think the pistils in the blossoms of the Sharpless are more easily fertilized than in any other variety. I have one variety that is destitute of pistils. It makes the grandest display of anything in the whole field. The stamens in its blossom are sometimes a quarter of an inch in length. It seldom ever ripens a berry, and on account of its showy blossom and barrenness we call it the Dude.

The following list I have adopted for permanent culture, and for this locality they are good, in the order mentioned: Sharpless, Crescent, Captain Jack, May King, Charles Downing, Connecticut Queen, Mt. Vernon, Fruit's Surprise, Manchester, Kentucky, Cumberland, Triumph, Glendale and Windsor Chief.

I have a seedling which promises to come to the front, but none of its plants are for sale. Dr. M. B. Baldwin, an old strawberry-grower, pronounced this seedling last year to be "the best-flavored berry in the whole field."

Franklin, Kas. T. F. SPROUL.

RHEUMATIC Sciatic Pains

Rheumatic, Sciatic, Shooting, Sharp, and Muscular Pains and Weaknesses, Back Ache, Uterine and Chest pains, relieved in one minute by the Cuticura Anti-Pain Plaster. The first and only instantaneous pain-killing strengthening plaster. 25 cents; five for \$1. At druggists, or of POTTER DRUG AND CHEMICAL CO., BOSTON.



A HORSE WHO CAN TALK!

Everybody has heard of a "horse laugh," but who has ever seen an equine gifted with the power of speech? Such an animal would be pronounced a miracle; but so would the telegraph and the telephone a hundred years ago. Why, even very recently a cure for consumption, which is universally acknowledged to be scrofula affecting the lungs, would have been looked upon as miraculous, but now people are beginning to realize that the disease is not incurable. Dr. Pierce's Golden Medical Discovery will cure it, if taken in time and given a fair trial. This world-renowned remedy will not make new lungs, but it will restore diseased ones to a healthy state when other means have failed. Thousands gratefully testify to this. It is the most potent tonic, or strength restorer, alterative, or blood-cleanser and nutritive, or flesh builder, known to medical science. For Weak Lungs, Spitting of Blood, "Liver Complaint" and Dyspepsia, or Indigestion, it is an unequalled remedy.

GUARANTEED. "Golden Medical Discovery," is the only medicine of its class that is sold by druggists under a printed guarantee from the manufacturers, that it will benefit or cure in every case of disease for which it is recommended, or money paid for it will be refunded.

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is offered by the manufacturers of DR. SAGE'S CATARRH REMEDY, for a case of Catarrh in the Head which they cannot cure. By its mild, soothing, and healing properties, Dr. Sage's Remedy cures the worst cases, no matter of how long standing. 50c., by druggists.

Dr. WHITTIER

ORIGINAL Dr. Whittier in Kansas City.
OLDEST Dr. Whittier in Missouri, and
Dr. Whittier in Kansas City who has
ONLY practiced medicine over 15 years.

CURES Syphilis, Scrofula, Rheumatism, Goitre, Eczema, etc., causing ulcers, eruptions, pain in bones, swelling of joints, enlarged glands, mucous patches in mouth, falling hair, and many other symptoms. All poison thoroughly and permanently eradicated from the system by purely Vegetable Treatment.

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NO FEE UNTIL CURED, from responsible persons.

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10 W. Ninth St., Kansas City, Mo.

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Prices given below are for both Papers.
The KANSAS FARMER, one year, and the Breeder's Gazette—both.....\$3.00
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The only institution in the world where Cancers and Malignant Tumors are permanently removed without using knife, ligature or caustics, and in all cases a permanent Cure is Guaranteed. Consultation free. Call or address

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Using "Anti-Corpulence Pills" lose 15 lbs. a month. They cause no sickness, contain no poison and never fail. Particulars (sealed) 4c. Wilcox Specific Co., Phila., Pa.

The Business Situation.

From the weekly review of trade by R. G. Dun & Co., of New York, under date of April 26th, it appears that preparations for the centennial display on the 30th, the general trade of New York city was somewhat interrupted. It appears, further, that the iron market continues unsatisfactory here and southern number one is sold at \$16 75, and a sale of steel rails at less than \$27 at the mill is reported, but the feeling at Philadelphia is clearly improved, the demand for plate and tank iron and sheet iron being fair while there is a decided improvement in structural iron and in nails. The market for bar iron is more steady. It is not yet clear that the consumption will sustain the present large output of pig iron, and prices do not strengthen. In the wool market also a better feeling is noted. In drugs and chemicals, also, another trade which has been very dull, distinct improvement is observed at Philadelphia, with collections in better shape and prospects higher. In most of the speculative markets, prices are lower and that fact also gives promise of larger and freer trade. Wheat is two cents lower at 83c with sales of 50,500,000 bushels for the week. Corn is 1c lower at 42c, and oats is 1c lower. Coffee has not changed but speculation in sugar has turned downward. There is no change of consequence in pork products, and oil is a fraction stronger, but leather is again 1c lower, butter 2c and cheese 1c lower. Flour has declined for some grades 50 to 70c per barrel. Speculation in cotton is still strong and the price an eighth higher, with sales here of 386,000 bales and exports continuing very large. In consequence mainly of the enormous cotton movement the value of exports exceeded the value of merchandise imports by \$2,833,326. The net export of gold, \$3,712,225 for the month and about one million of silver made about \$7,600,000 paid abroad, against interest due and under valuations, for three months, the next exports of merchandise and specie represent about half the estimated interest and under valuations. These figures show, that in spite of much weakness in speculative stocks, the foreign investments still exceed withdrawals of foreign capital and of late the demand for railroad and other bonds has been exceptionally strong. In European markets the general tendency of prices is upward. Since April 1 the fall in the average prices of all commodities here has been fully one-half of 1 per cent. The dry goods business in other cities is fairly on a level with last year and prices are well maintained. It is a good sign that collections in this branch seem to be generally improved. The grocery trade has also been more active. While the number of business failures has been very large this year, there is not the sense of uneasiness which would usually attend. The business failures number 213, as compared with a total of 246 last week, and 239 the week previous. For the corresponding week last year the figures were 223.

Mr. Secretary Mohler, of the State Board of Agriculture, was up at his farm in Osborne county last week, and he brings good reports of crops in that section. "The fall wheat which, owing to drouth, had disappeared, was by no means lost, as many feared; under the reviving influence of frequent rains the dead fields have come to life and wheat of early and late planting is looking fine. The spring wheat was sown under favorable circumstances and now looks nearly as large as that which laid in the ground all winter. The people show the effects of bright crop prospects and are in better spirits than they have been for a long time. There is in Osborne a

growing demand for houses to rent and real estate in the city as well as farming property, is being called for by purchasers who are now ready to settle down and wait for general results. Take it all together, there is a better feeling than for several years. All the way down the valley from Cawker City to Topeka the fields look most promising.

Patents.

The following list is reported through the official records for the week ending April 23, 1889, by Higdon & Higdon, Patent Lawyers, office rooms 55 and 56 Hall Building, Kansas City, Mo., and room 29 St. Cloud Building, Washington, D. C. By applying to them at either office a printed copy of any patent here named can be obtained for 25 cents.

MISSOURI.

Cultivator—Josiah Dodge, Appleton City. Automatically closing faucet—Elliott E. Furney, St. Louis. Caramel holder—George W. Chase, St. Joseph. Surgical applicator—Elmer Lee, St. Louis. Ratchet drill—William G. Morgan, St. Louis. Vehicle brake—John W. Martin, St. Louis. Fire-proof plaster cloth for ceilings and walls—Alfred J. Paris, St. Louis. Washing machine—Thomas Waldren, Sheldon.

KANSAS.

End gate—Abraham H. Stark, Belleville. Distributor for explosive bombs—Horace W. Parsons, Wamego.

Combined record and sales book—John P. Harsha, Hutchinson. Drenching bit—Charles W. Crannell, Oberlin.

Washing machine—Henry Broadwell, Blue Mound. Poultry carrier—George M. Beebower, Cherryvale.

Fearless Threshing Machine.

We call the attention of farmers and threshermen to the advertisement of the celebrated Fearless Threshing Machine, elsewhere in this paper. Unparalleled honors have been bestowed upon this machine, at fairs and exhibitions, State, National and International; and, if universal victory at trials is evidence of superiority, then most assuredly was an ex-President of the New York State Agricultural Society correct, in saying of the Harder Machines, "they are the best ever made." And, as equally good and reliable testimony has been borne times without number, persons designing to purchase will do well to consult the manufacturer of the Fearless. Minard Harder, Cobleskill, N. Y.

Catarrh Cured.

A clergyman, after years of suffering from that loathsome disease, Catarrh, and vainly trying every known remedy, at last found a recipe which completely cured and saved him from death. Any sufferer from this dreadful disease sending a self-addressed stamped envelope to Prof. J. A. Lawrence 88 Warren St., New York city, will receive the recipe free of charge.

THE MARKETS.

(APRIL 27.)

Chicago.

WHEAT—No. 2 spring, 81a81 $\frac{1}{4}$ c; No. 3 spring, 73a78c; No. 2 red, 81c.

CORN—No. 2, 83 $\frac{1}{4}$ c.

OATS—No. 2, 21 $\frac{1}{4}$ a21 $\frac{1}{4}$ c.

RYE—No. 2, 40 $\frac{1}{4}$ c.

BUTTER—Weak, not notably lower. Fancy creamery, 22a23c; choice to fine, 19a20; fine dairy, 18a20c.

EGGS—Steadier at 10 $\frac{1}{4}$ alb.

Kansas City.

WHEAT—No. 2 red, 81c.

CORN—No. 2, 26c.

OATS—No. 2, 21 $\frac{1}{4}$ c.

CATTLE—Beef steers, 83 15a3 75.

HOGS—Extreme range of sales, \$4 40a4 57 $\frac{1}{4}$; bulk at \$4 45a4 50.

SHEEP—\$4 15a4 25.

T. W. ANDREWS,

ROSSVILLE, KAS.,

Owner of the right for Shawnee and Waubunee counties and agent for E. P. C. Webster,

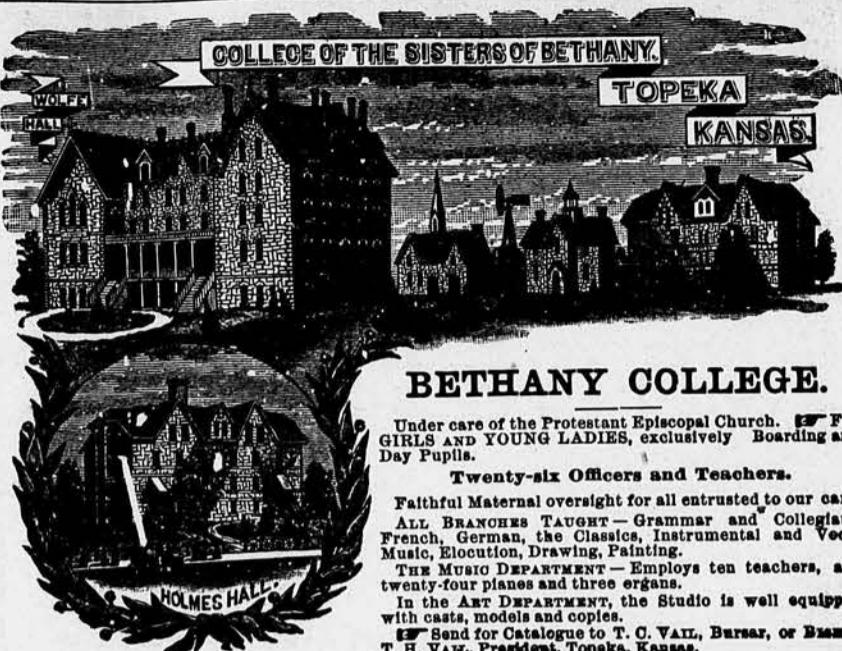
IS PREPARED TO DEMHORN CATTLE by the use of the Webster chute, in the above counties, in the best and easiest possible way. Address him.

RUPTURE—RUPTURE

A new and sure method for the relief and cure of rupture. Every case guaranteed. Recommended by leading physicians and hundreds of patients from all parts of the Union as far superior to all other methods of treatment. Patient is made comfortable and strengthened for work at once, and an early and permanent cure assured. No operation, pain or hindrance. Send 10 cents in stamps for 36-page pamphlet on Rupture and its Treatment, with numerous statements from physicians and patients.

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COLLEGE OF THE SISTERS OF BETHANY.**TOPEKA****KANSAS.**

Under care of the Protestant Episcopal Church. For GIRLS AND YOUNG LADIES, exclusively Boarding and Day Pupils.

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Faithful Maternal oversight for all entrusted to our care. ALL BRANCHES TAUGHT—Grammar and Collegiate, French, German, the Classics, Instrumental and Vocal Music, Elocution, Drawing, Painting.

THE MUSIC DEPARTMENT—Employs ten teachers, and twenty-four pianos and three organs.

In the ART DEPARTMENT, the Studio is well equipped with casts, models and copies.

Send for Catalogue to T. C. VAIL, Bursar, or Bishop T. H. VAIL, President, Topeka, Kansas.

EMPORIA BUSINESS COLLEGE

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PROF. O. W. MILLER.

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NAMED by Eberhart's Key. Only one published. Arranged like a key to plants. Illustrated, 25c. How to Collect and Mount Insects (Illustrated), 8 cents. POPULAR PUB. CO., Chicago, Illinois.

ANY PERSON CAN PLAY THE PIANO AND ORGAN WITHOUT A TEACHER, by using Soper's Instantaneous Guide to the Keys. Price, \$1.00. No previous knowledge of music whatever required. Send for book of testimonials free. Address The Dorcas Magazine, 19 Park Place, New York.

SALES MEN

We wish for men to sell our goods by sample to the wholesale and retail trade. Largest manufacturers in our line. Enclose 2-cent stamp. Wages \$3 Per Day. Permanent position. No postal answer. Money advanced for wages, advertising, etc. Centennial Manufacturing Co., Cincinnati, Ohio.

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your PAST, PRESENT and FUTURE, FREE, by wonderful clairvoyant. If sick, send one leading symptom and two 2-cent stamps for diagnosis. Address THE BANNER OF LIFE, G'd Rapids, Mich.

F FARMS WANTED!

A large number of farmers in the Northern and Eastern States and Canada want to buy farms in the West and South. If you have a farm to sell, send your address to

THOS. H. CHEW & CO., ST. LOUIS, MO.

Refer to the editor of this paper.

OKLAHOMA SURPASSED Read about Texas. Send your address and we'll send the great weekly paper of Central Texas, THE BROWNWOOD APPEAL. Contains full and accurate information of this great Graze, Wool and Cattle country. The healthiest and most desirable spot on earth for home seeker, land hunter and capitalist. One average crop pays for your home. The population exclusively white. Lands rich and cheap. Good markets, schools, churches and railroads. Address APPEAL, Brownwood, Tex.

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Write to DENSMORE BROS., RED WING, MINN., for circular of the PORTER STEAM EVAPORATOR. The best, most economical and cheapest Evaporator in use. It has an enviable reputation for rapidity of work and the ease, reliability and precision with which it operates.

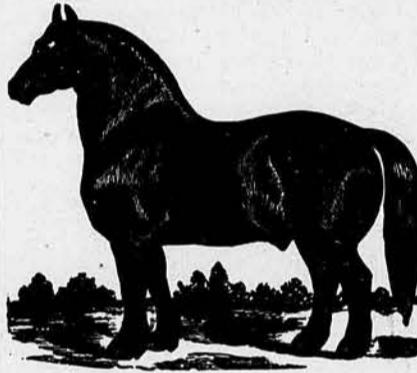
Circulars free. Write at once and name this paper.

HAAFF'S HORN-KILLER.

Years ago I invented and used on my own herd a "Horn-Killer"—something to stop the growth of the young horn. I have now perfected it, and am prepared to give it to the public. Price 75 cents per bottle. One bottle is enough for forty calves. I propose that others shall aid in this work, and want agents everywhere. County rights for sale cheap. Right to patent fully protected. Full directions with every package. Also "Haaff's Dehorning Saw" and two blades \$1.50, and "Haaff's Cattle Tags" for sale. Address H. H. HAAFF, Box 193, Chicago, Ill.

Kill Them Before They Grow.

Brayton's Sure Horn Destroyer, the greatest discovery of the age. A chemical compound, which applied to the embryo horn will kill it without injury to the calf, leaving the head smooth as a ball. This easy and harmless method of destroying the horn does away with the objections of cruelty urged against the saw and knife. Get a bottle of the DESTROYER now. You will need it soon. It should be applied before the horn comes through the skin. Then it is sure. It is easily applied. Every bottle guaranteed. Bottle containing sufficient to destroy horns on forty head, sent prepaid on receipt of 75 cents. A. W. BRAYTON, Mount Morris, Illinois.



The Imported CLYDE Stallion

"KNIGHT OF HARRIS" 995 (2211) Will make the season at Prospect Farm, three miles west of Topeka. \$20 to insure. H. W. McAFFEE.

IMPORTANT TO HORSE OWNERS

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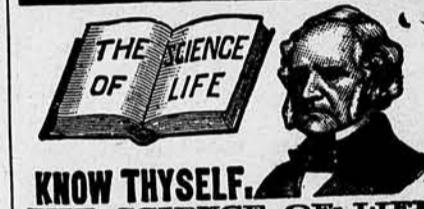
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The Busy Bee.**How Not to Keep Bees.**

We recently made a visit to the apiary of an old-fashioned bee-keeper, some would call him an old fogey, but in this instance we hardly believe the term will apply, because he does not insist that his way is best and that so-called improvements are a sham. We will tell our readers some things that we saw, hoping that some may learn how not to keep bees. The bees were kept on a long bench under a low shed. Such a building furnishes an excellent wind-break for winter, but for summer use is very unhandy, because the hives were crowded close together which is confusing to the bees and often causes the loss of young queens by their getting into the wrong hives when returning from their wedding flight. To be compelled to work in a stooping position when handling bees is a serious objection to a shed. Having several hives on one bench is objectionable, because while handling one colony, others are liable to be shaken and disturbed. The bees were all kept in ordinary box hives, and looking into several of these revealed the fact that quite a number had died during the winter, not having secured enough honey to carry them through. These were all swarms from last season and consequently the comb was clean and bright. This of course will be torn out and made into wax where if it had been in the frame hives, could have been used to an excellent advantage in building up new colonies this season. Had the bee-keeper been a careful one, these late weak swarms would have been united, and if necessary fed sufficiently to insure their wintering. If the best combs were now transferred to frame hives the holes caused by the cross sticks would frequently be so large as to be objectionable. This bee-keeper, although getting a good many pounds of honey in a year, never realizes any cash profit from it because it is made in large boxes—the very way in which it can be sold to the poorest advantage. Improved appliances for the apiary are sold at such reasonable prices that there seems to be little reason in such a method. Reader, there is not just such an apiary in your back yard, is there?—*Indiana Farmer.*

All humors of the scalp, tetter sores, and dandruff cured, and falling hair checked; hence, baldness prevented by using Hall's Vegetable Sicilian Hair Renewer.

If the sheep are stabled at nights and from storms during the summer, the sheds should be kept clean and well bedded with fresh straw each day before the sheep are turned in. The pens must be watched closely, and be kept well bedded and well aired, or they will become very filthy.

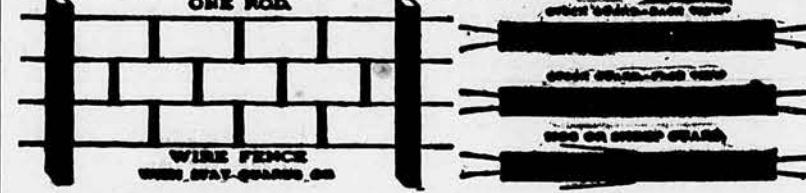
Bran-cake, the new cattle food introduced to the German market, is making way. It is now being employed for the feeding of calves and hogs. The cakes are six inches long, three broad, and one-fourth inch thick, with beveled corners. The interior of the cake is hard, requires a fair blow to be cracked, when it splits, not into crumbs, but into flakes.

High calks on horse's shoes have a tendency to cause contracted heels and quarter cracks. They should be used only when necessary to prevent slipping. The frog is intended as a cushion for the foot to prevent concussion when it comes to the ground, but a dry frog is a very poor cushion, and high calks prevent the frog from keeping the wall of the hoof spread in their natural position.

In selecting and purchasing a flock of sheep to feed, and then put on the market, care should be exercised to have them all of one breed, size, age and color. A bunch of sheep uniform in these qualities will command a more ready market, and at better

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prices, than a bunch of even superior merit, but which is uneven in grade. Another reason for having the sheep uniform is that they will feed together better and fatten more evenly.

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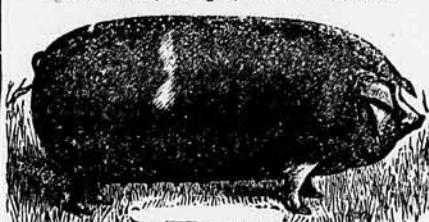
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Selected by a member of the firm, just received.

Terms to Suit Purchasers. Send for illustrated catalogue. — Stables in town.

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**STALLION SERVICE.****ZETA,**

Sire, imported Billet by Voltiger. Dam, Venus by Hurricane, he by Imported Belshazzar. He is a beautiful brown, very fine coated, good mane and tail. 16 hands 1 inch, weighs 1,200 pounds. ZETA has the size, style, action, speed, endurance, beauty and disposition to sire Coach, Saddle, Driving or General-Purpose horses of the best class. Terms: \$15 for the season; \$25 to insure. Further information upon application to **SEXTON, WARREN & OFFORD, Maple Hill, Kas.**

Holstein-Friesian Cattle.

I have a choice herd of these justly-celebrated cattle of all ages. Also some nice grades, for sale at reasonable prices. Personal inspection invited. Call on or address

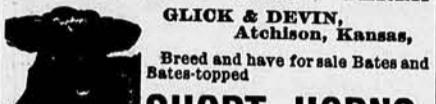
**JNO. D. PRYOR,
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FOR SALE TO FEEDERS.**Steers and Heifers.**

One, two and three years old, near Kiowa, Kansas, suitable for feeding or roughing. Also stock cattle. To parties making first-class paper, will be sold partly on time.

B. R. GRIMES, Kiowa, Kas.

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SHANNON HILL STOCK FARM.

GLICK & DEVIN,
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Breed and have for sale Bates and Bates-topped

SHORT-HORNS.

Waterloo, Kirklevington, Filbert, Cragg, Princess, Gwynne, Lady Jane, and other fashionable families. The grand Bates bulls Imp. 8th Duke of Kirklevington No. 41798 and Waterloo Duke of Shannon Hill No. 89879 at head of herd.

Choose young bulls for sale now. Correspondence and inspection of herd solicited, as we have just what you want and at fair prices.

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The Short and Popular Line between **ST. JOSEPH, MO.**,
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OPIUM Morphine Habit Cured in 10 to 20 days. No pay till cured. Dr. J. Stephens, Lebanon, Ohio.



The best PLUG tobacco ever put on the market.



Ask your dealer for JOLLY TAR.
Jno Finzer & Bro's, Louisville.

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NATIONAL DISPENSARY.

NERVOUS, CHRONIC and PRIVATE DISEASES of MEN and WOMEN successfully treated.

YOUNG MEN

Suffering from the effects of youthful follies or indiscretions, or are troubled with Weakness, Nervous debility, Loss of Memory, Despondency, Aversion to Society, Kidney Troubles or any diseases of the Genito-Urinary Organs, can here find a safe and speedy cure. Charges reasonable, especially to the poor.

MIDDLE-AGED MEN.

There are many troubled with too frequent evacuations of the bladder, often accompanied by a slight smarting or burning sensation, and weakening of the system in a manner the patient cannot account for. On examining the urinary deposits aropy sediment will often be found, and sometimes small particles of albumen will appear or the color be of a thin, milky hue, again changing to a dark or torpid appearance. There are many men who die of this difficulty, ignorant of the cause, which is the second stage of seminal weakness. The doctor will guarantee a perfect cure in all such cases, and a healthy restoration of the genito-urinary organs. Consultation free. Send 2-cent stamp for "Young Man's Friend, or Guide to Wedlock." Address

DR. SPINNEY & CO.,
Main and 12th Sts., Kansas City, Mo.

— Mention this paper.

A SUFFERER from errors of youth, wasting weakness, lost vigor, etc., was restored to health in such a remarkable manner after all else had failed, that he will send the mode of cure FREE to all fellow sufferers. Address L. G. MITCHELL, East Haddam, Conn.

THE STRAY LIST.

HOW TO POST A STRAY.

FEES, FINES AND PENALTIES FOR NOT POSTING.

AN ACT of the Legislature, approved February 27, 1866, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk required, within ten days after receiving a certified copy containing complete description of said strays, a 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 three successive issues of the paper. It is made the duty of the proprietors of the KANSAS FARMER to send 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 \$0.00 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 person, except citizens and householders, can take up a stray.

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

A person taking up an stray, must immediately give 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 thirty 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 the 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 up, 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 APRIL 18, 1889.

Decatur county—R. W. Finley, clerk.

COLT—Taken up by E. Wilson, in Lyon tp., March 8, 1889, one sorrel horse colt, 3 years old, thirteen hands high, no marks or brands; valued at \$40.

FOR WEEK ENDING APRIL 25, 1889.

Saline county—Joseph Sargent, clerk.

COLT—Taken up by O. O. Lundall, in Liberty tp., March 30, 1889, one roan horse colt, star in forehead, had harter on; valued at \$25.

STEER—Taken up by Luther Hall, in Liberty tp., March 2, 1889, one mouse-colored steer, 4 years old, dehorned, brand on right hip supposed to be I.F., both ears cropped; valued at \$15.

Pawnee county—James F. Whitney, clerk.

MARE—Taken up by Francis Howell, in Garfield tp., P. O. Garfield, April 2, 1889, one bay mare, 18½ hands high; valued at \$15.

Greenwood county—J.W. Kenner, clerk.

STEER—Taken up by J. J. Wassam, in Spring Creek tp., November 1, 1888, one 2 year-old red steer, white strip under belly, tail white at end, right ear cut or frozen off at the point, no marks or brands visible; valued at \$17.

Crawford county—J. C. Gove, clerk.

COW—Taken up by S. B. Gibson, in Sheridan tp., P. O. Cherokee, March 28, 1889, one red cow, star in face, slit in right ear; valued at \$14.

FOR WEEK ENDING MAY 2, 1889.

Coffey county—H. B. Cheney, clerk.

HORSE—Taken up by Sarah A. Moyer, in Pleasant tp., one sorrel horse, blaze face, brand on left shoulder, black spot on left hip, left hind foot white; valued at \$25.

Johnson county—W. M. Adams, clerk.

MARE—Taken up by D. B. Johnson, in Shawnee tp., April 16, 1889, one bay mare, 14½ hands high, star in forehead, both hind feet white, shod all around; valued at \$25.

Too Late to Classify.

SWEET POTATO PLANTS

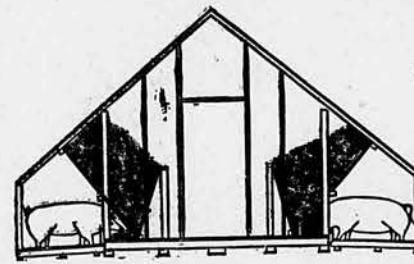
All leading varieties, from choice, select stock. Per 1,000, #2, in 5,000 lots, \$1.75 per 100'; 10,000 lots, \$1.50 per 1,000; 20,000 lots, \$1.25 per 1,000.

C. F. PRIMM BROS., Augusta, Kas.

STRAYED—A bay mare, 3 years old. Information leading to recovery will be rewarded. A. Brigham, 415 Hunton street, Topeka, Kas.

SEED SWEET POTATOES—A large quantity of seed and eating sweet potatoes. Plants in season. B. F. JACOBS, Box 122, Wamego, Kas.

The Hog Sanitarium



[Patented Oct. 9, 1888, by a practical feeder.]

For Saving Feed and Work and Protecting Hogs from Disease.

A Granary and Automatic Feeder Combined, to be erected in the Feed Yard. Will store 900 bushels of corn; feed 150 head of hogs. Any farmer can build it.

For feeding laxative and nitrogenous food, such as Bran, Ground Rye, Ground Oil Cake, Shorts, etc., with Corn, shelled or ground, dry and without waste, also for feeding salt at all times, thoroughly mixed through the feed. Warranted, when properly used, to save at least 20 per cent. of the feed as usually fed. Not by the direct saving alone, but mostly by reason of increased thrift and rapid and even fattening. Will require for construction about 2,000 feet of lumber and 3,000 shingles for feeder of regulation size. Can be built of less capacity and added to at any time to suit the farmer's needs.

The use of this feeder with a proper supply of nitrogenous and laxative food with corn, will in two weeks' time place the most unthrifty hogs in good condition, if not already infected with cholera. It is the greatest safeguard against cholera. Sanitarium hogs eat regularly and often; never overeat. No mud or filth to consume; all work and waste practically dispensed with.

The use of shelled corn or meal in the Sanitarium is not half the trouble it is to feed ear corn. Keeps the yard free from litter; gives all hogs in the yard the same chance to thrive, all having equal access to feeder. When you see your corn trampled in the mud and filth you feel like kicking yourself. When you witness hogs eating from the Sanitarium in a muddy time you smile; so do the hogs. You do not hesitate to provide for the comfort of other farm animals; why neglect the hog? It brings a quicker and better return for money invested than any other animal. Protect his health and feed him properly and he will be more remunerative to you. I furnish Permit with full instructions about building and operating Sanitarium on one quarter section or less tract of land for \$10.00. To introduce it, I will furnish same to first applicant in a township for 25 cents (in stamps), which merely covers cost of papers, etc., and require building to be erected within sixty days from date of permit. Applications can be made direct to me, mail, and in all cases must be accompanied with description of land on which you wish to build (section, town, range and quarter).

Above special proposition will be withdrawn July 1, 1889. Agents with good references wanted in every county—stockmen preferred.

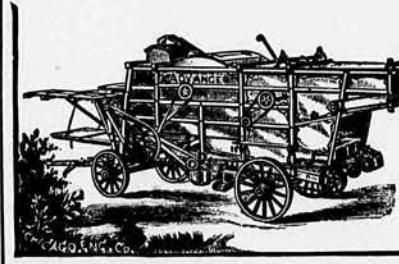
Circulars on application.

Any party building the Sanitarium, or adopting or using any feature or plan of its construction without first obtaining a Permit or Farm Right, will be subject to prosecution for infringement, and will be prosecuted accordingly.

E. M. CRUMMER,
Patentee and Owner,
BELLEVILLE, KAS.

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THRESHERS AND ENGINES

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Factory and Main office, Battle Creek, Mich.
Write for full information to the factory, or to
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HIGHLAND HERD POLAND-CHINAS

Deitrich & Gentry, Ottawa, Kas.

Such strains as Corwines, Give or Take, Hoosier Tom, Duchess, Riverside Beauty, Lady Maid, I.X.L., and others represented. 75 pigs from 6 boars. Orders booked now for spring pigs. Correspondence answered promptly. Mention KANSAS FARMER.

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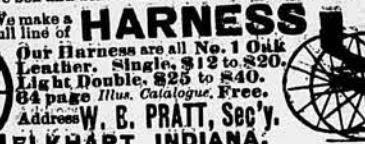
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\$24.50



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Full Nickel Harness
\$14.00



SURBINS
\$100
to \$125

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ONE PRICE, ONLY.

Platform, Combination, and 3-Spring Wagons, \$60; same as others sell at \$85. Top Buggies, \$80; fine as some sold at \$110. ours at \$105, are fine as sell for \$140. Phaetons, \$125; same as sold at \$165. Road Carts, \$17.

We make a full line of HARNESS.

Our Harness are all No. 1 Oak Leather. Single, \$12 to \$20. Light Double, \$25 to \$40.

64 page Illus. Catalogue, Free.

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CONSIGNMENTS SOLICITED.

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4 and 6 North Commercial St., ST. LOUIS, MO. { Merchants.

References:—Boatmen's Saving Bank, Dunn's Mercantile Agency, Bradstreet's Mercantile Agency.

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Successors to HAGEY & WILHELM,

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General Agents for Cooper's Sheep Dip.

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Full returns guaranteed inside of six days.

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Above special proposition will be withdrawn July 1, 1889. Agents with good references wanted in every county—stockmen preferred.

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DAIRY IMPLEMENT CO., Bellows Falls, Vt.

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A successful device for application to stock tanks. Prevents formation of ice; heats water to temperature healthful for cattle; requires little fuel and attention; applied or removed without cutting or otherwise defacing tank. Saves its price within a short period of use. Its merits alone command it. Live Agents wanted for unassigned territory.

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 Anti-Friction Ball Bearings. Makes less Draft. Double Levers. Move Disc Gangs Independently. Disc Gangs Flexible. Seeder Attachment a Great Success.

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Runs in the lightest winds. Works in the heaviest gales. Does not get out of order. Noiseless in operation. Needs no oiling or other attention often than four times a year. No wearing parts exposed to the weather. No tower required, as Wind Mill can be located in the best exposure (on barn or hill) at any distance from water supply. Pumps five times more water than any other wind mills. Adapted to any size well. Recommended by distinguished engineers. The strongest and best pump made for farms, mines, railway service, drainage and irrigation. Send for catalogue.

Hartford Compressed Air Pump Co., Bound Brook, N. J.

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BREEDERS' DIRECTORY.

(Continued from page 1.)

POULTRY.

1880. MRS. EMMA RROSIUS, TOPEKA, KANSAS. Established in 1880. Four miles southwest of city. Breeder and shipper of highest class fancy poultry. Eggs—Light Brahma, \$8 per 13; \$5 per 26; Silver Wyandotte, \$2.50 per 13; \$5 per 26; Pekin duck, \$1.50 per 13; \$5 per 26; M. Bronze turkey, \$8 per 9. Breeders first class in every respect.

TOPEKA WYANDOTTE YARDS.—Breeder of Silver-Laced, White and Golden Wyandottes, S. S. Hamburg. Pen No. 1—eggs, \$3 f.r. 15; pen No. 3—\$2 for 13; H-mburgs, \$2.50 for 13. A. Gandy, 624 Kansas Ave., Topeka, Kas.

COLLEGE HILL POULTRY YARDS.—Eggs for sale at \$1.25 per thirteen from pure-bred Brown Leghorn, Houdan, Wyandotte, Laugher and Light Brahma fowls. W. J. Griffing, Prop., Manhattan, Kas.

N. R. NYE, Leavenworth, Kas., breeder of the leading varieties of Land and Water Fowls. DARK BRAHMAS a specialty. Send for Circular.

WALNUT HILL POULTRY YARDS—Contain high-scoring and premium stock of Wyandottes, Rose-comb Brown and White Leghorns, G. S. Bantams and Langshans. Eggs, \$2.00 per 15; \$5.00 per 30. Express prepaid. Best cholera cure free to patrons. Also have best seed potatoes for the West. Circulars free. Address G. W. Fry, Dunlap, Grundy Co., Mo.

G. C. WATKINS, Hiawatha, Kas., originator of the G. Shaufler strain of Plymouth Rocks. Largest size and good layers. Eggs \$2.00 per thirteen. Express prepaid.

BRONZE TURKEYS, PEKIN DUCKS, PLYMOUTH Rock, Wyandotte and Brown Leghorn chickens. Stock pure. Eggs in season. No circulars. Write for wants. Mrs. M. R. Dyer, Box 40, Fayetteville, Mo.

JOHN C. SNYDER, Constant, Cowley Co., Kansas, breeds PLYMOUTH ROCKS and BRONZE TURKEYS. No fowls for sale. Eggs in season. Write for wants or send for circular, and mention this paper.

PRairie LAWN POULTRY YARDS—Contain the best strains of Golden Polish, Brown Leghorns, Light Brahma, Plymouth Rocks, two yards, Bronze Turkeys, Toulouse Geese and Pekin Ducks. Eggs in season. Also proprietor GOLD DUST HERD OF POLAND-CHINA HOGS. J. M. McKee, Wellington, Kas.

SHAWNEE POULTRY YARDS—Jno. G. Hewitt, Prop., Topeka, Kas., breeder of leading varieties of Poultry, Pigeons and Rabbits. Wyandottes and P. Cochins a specialty. Eggs and fowls for sale.

PLYMOUTH ROCKS, WHITE P. ROCKS, ROSE-COMB BROWN AND WHITE LEGHORNS AND BLACK JAVAS. Fowls and eggs for sale. Large illustrated catalogue and price list free. We send a beautiful little chromo of a pair of P. Rocks for 4 cents in stamps. Address Geo. T. Pitkin, 3438 Rhodes Avenue, Chicago, Ill.

6 TOULOUSE GOOSE EGGS \$1.75; S. L. WYANDOTTES, Langshans and Pekin Ducks, fifteen eggs, \$1.25. First premium breeding pen of S. C. B. Leghorns, thirteen eggs, \$1.50. Ten per cent discount on two sittings. Each flock has free range and is headed by first premium male. Birds to sell. W. D. Kerns, Baldwin, Kas.

E. E. FLORA, Wellington, Kas., breeder and shipper of pure-bred poultry—Partridge Cochins, Plymouth Rocks, Single-comb Brown and White Leghorns, Rose-comb Brown Leghorns, Wyandottes, Light Brahma, Buff Cochins, Langshans. Eggs \$1 per 13, \$2 per 30. Pekin duck and Hongkong geese eggs 10 cents each. Bronzeturkey eggs 15 cents each. Stock next autumn.

EUREKA POULTRY YARDS.—L. E. Pixley, Emporia, Kas., breeder of Wyandottes, B. B. R. Games, P. Rocks, B. and W. Leghorns, Buff Cochins and Pekin Ducks. Eggs and birds in season. Write for what you want.

H. A. WATTERS, Agt. Pacific Express, Bayneville, Kas. Best Wyandottes, Plymouth Rocks and B. B. R. Games. Eggs \$2 per thirteen. Stock for sale.

EXCELSIOR POULTRY YARDS—C. E. Masters, Prop., Irving Park, Ill., breeder of the leading varieties of Poultry. Also Ferrets, Rabbits, Pigeons and Pets. White Leghorns, White Wyandottes and White-Face Black Spanish a specialty. "Excelsior" is my motto—the very best is none too good. Eggs in season \$2. Send for circular, giving full description.

JAMES ELLIOTT, ENTERPRISE, KAS.—Proprietor of the Enterprise Poultry Yards, composed of the following varieties: Silver and White Wyandottes, White and Barred Plymouth Rocks, Light and Dark Brahma, White and Buff Cochins, Langshans, R. C. White and Brown Leghorns, B. B. Red Games and Mammoth Bronze Turkeys. Breeding fowls strictly No. 1. Eggs \$1.50 and \$2 per 13. Also breeder of pure Berkshire Svoine and Cotswold Sheep. Swine, sheep and poultry for sale. Your patronage solicited. Golden rule guaranteed. Mention the "Kansas Farmer."

PLYMOUTH ROCK EGGS—One dollar per thirteen. Plymouth Rock cockerels, two dollars each. Mark S. Salisbury, Independence, Mo.

CATTLE AND SWINE.

\$ SAVED—By getting my prices before buying SHORT-HORN CATTLE and POLAND-CHINA HOGS. Good individuals and pedigrees. PLYMOUTH ROCK fowls of most noted strains. Eggs \$1 per thirteen. C. M. T. HULITT, Edgerton, Johnson Co., Kansas.

A. B. DILLE & SON, Edgerton, Kas., breeders of A. choice Poland-China hogs, Short-horn cattle and thoroughbred Poultry. Choice young bulls and boars for sale cheap.

JOHN LEWIS, MIAMI, Mo., breeder of Short-horn Cattle, Poland-China Hogs, Cotswold Sheep, Light Brahma and Bantam Chickens, Bronze Turkeys, Peafowl, Pekin Ducks and White Guineas. Young stock for sale. Eggs in season.

M. H. ALBERTY, Cherokee, Kas., breeder of Reg. Iisted Holstein-Friesian cattle and Poland China swine.

J. J. MAILS, Manhattan, Kas., breeder of Short-horn J. cattle, Berkshire and Poland-China hogs. Fine young stock of both sexes for sale. Examination or correspondence always welcome.

J. L. TAYLOR & SON—Englewood Stock Farm, Lawrence, Kas., breeders of Holstein-Friesian cattle and Poland-China Hogs. Stock for sale. Terms easy.

HILLSIDE STOCK FARM—W. W. Waltmire, Carbondale, Kas., importer and breeder of Charolais White swine and Short-horns. Pigs for sale now.

SWINE.

THE GOLD DUST HERD OF POLAND-CHINAS. Established 1880. Are premium hogs of very best strain. They please visitor's eye. Stock, both sexes, for sale, and a few choice sows ready bred. Your patronage solicited. Address J. M. McKee, Wellington, Kansas. Also Fancy Poultry.

SCOTT FISHER, Holden, Mo., breeder of the very best strains of Poland-Chinas. Pigs from five noted boars. Can furnish small herds not skin. Sell nothing but first-class stock. Over 100 pigs for this season's trade. Write me and mention this paper.

LONGVIEW HERD OF POLAND-CHINAS. Pigs of either sex for sale at all seasons. All breeders re-ordered. Correspondence promptly answered. Walter Ferguson, Valley Falls, Kas.

THOS. C. TAYLOR, Green City, Mo., has a few choice young Poland-Chinas for sale yet. Also will hook orders for spring pigs.

Z. D. SMITH, Greenleaf, Kas., breeder and shipper of fine Poland-China Swine. Also Jayhawk strain of Plymouth Rock Fowls. Write for prices.

PEDIGREE POLAND-CHINAS—At prices that will sell them. Well loaded with Corwin blood and other popular strains. Marion Brown, Nortownville, Kas.

THE PIONEER HERD—Of Pure Duroc-Jersey Svoine, Partridge Cochins and Svoe Turkeys. A. Ingram, proprietor, Perry, Pike Co., Ill. Showed at seven fairs in 1888 and won 60 premiums. Orders promptly filled.

KAW VALLEY HERD POLAND-CHINAS. Tat's Sample at head. All breeders fine individuals. Also fancy poultry. Inspection invited. Correspondence promptly answered. M. F. Tatman, Rossville, Kas.

MAHAN & BOYS, Malvern, Nebraska, breeders of pure Essex Swine.

JOHN BUCHKE, breeder of Poland-China Swine. Stock of all ages for sale. Young pigs ready to ship May 1st. Pleasant View Farm, Miltonvale, Kas.

POLAND-CHINA SWINE—From No. 1 breeding stock. All stock recorded or eligible to record. Personal inspection solicited. Correspondence promptly answered. Satisfaction guaranteed. Henry H. Miller, Rossville, Kas.

MISCELLANEOUS.

W. L. LAYSON LUMBER CO.—Farmers, call and get prices. Yards, First and Jackson streets, Topeka.

PRESCOTT & HANNA,
Livery, Feed & Boarding Stable
Buying and Selling Horses
a specialty.

618 Quincy St., Topeka, Kas.

WICHITA AND SOUTHWESTERN KENNELS—D. T. SNOKE, Veterinary Surgeon, proprietor, No. 1927 South Wichita street, (Lock Box 154), Wichita, Kas. Breeder of Imported Dogs, Leonberg St. Bernards, Newfoundlanders, English Coachmen, German, English and Irish Pointers, Great Dane or German Mastiffs, English Mastiffs, Bull Terriers and Pugs, Fox Hounds, Large and Small Black-and-Tans, Irish Setters, King Charles, Cocker and Japanese Spaniels, English Shepherds, Scotch Terriers, Hairless Mexicans, Poodles, and others, always on hand. Mention KANSAS FARMER.

"TWO-CENT COLUMN."

"For Sale," "Wanted," "For Exchange," and small advertisements for short time, will be charged two cents per word for each insertion. Initials or a number counted as one word. Cash with the order.

"Special.—All orders received for this column from subscribers, for a limited time, will be accepted at one-half the above rates—cash with the order. It will pay you! Try it!"

McCALLUMMORE—The greatest show horse in Kansas, stands at fair grounds, Topeka; \$25 to insure. Fergus McGroarty, by the record, the greatest sire of speed in the state, stands at Union Stock Yards, North Topeka. These are the only well-bred sons of the great Rohn. McGroarty (that stands for \$300 a mare) in Shawnee County.

SWEET POTATO PLANTS—Now ready. Carefully packed to go any distance. Correspondence solicited. Address B. R. Wescott, Eureka, Kas.

S. C. BROWN LEGHORNS EXCLUSIVELY—At S. Evergreen Fruit Farm. Mrs. Belle L. Sprout, Frankfort, Kas.

SWEET POTATO PLANTS—All of the leading varieties at bed-rock prices. Rates given on application. S. Cox, Box 64, Lawrence, Kas.

PASTURE FOR 200 HEAD—To lease, or will take in that many very cheap. G. Z. Barnes, Yates Center, Woodson Co., Kas.

BEEES, HIVES, ETC., PLYMOUTH ROCK EGGS, very cheap. St. Joseph Apairy, St. Joseph, Mo.

SWEET POTATO, CABBAGE & TOMATO PLANTS—at \$1.00 per 1,000. Transplanted tomato and peppers at \$3 per 1,000. S. S. Mountz, Belle Plaine, Kas.

SEND NOW—Mammoth Bronze Turkey eggs, fourteen for \$2.50. "Bill Nye," a thirty-pound young tom at \$1.50. John C. Snyder, Constant, Kas.

HOLSTEIN BULL CALVES AT LOW PRICES, if taken soon. Echo, Aggie, Aggie and Netherland families. M. S. Babcock, Nortownville, Kas.

FOR SALE—Eggs of W. F. B. Spanish, \$2.50 per setting; P. Rocks, \$1; Pekin ducks, \$2. Each seventh oder free. Eggs after May 1 half price. Mrs. Viola W. Grublin, Virginia, Kas.

TO TRADE—A spring wagon or buggy for good driving horse. Kinney & Lannan, 424 Jackson St., Topeka.

RED CEDARS A SPECIALTY. Topeka, Kas.

SHORT-HORNS.—For sale cheap, a number of choice thoroughbred bulls, cows and heifers. Address or call on W. W. Waltmire, Carbondale, Kas.

PURE PEKIN DUCK EGGS—Seventy-five cents per thirteen. Would like to exchange for pure Plymouth Rock and Bronze turkey eggs. Mrs. Vina Beeson, Fall River, Kas.

POULTRY—

SEEDS

J. G. PEPPARD, 1220 UNION AVENUE,
MILLET A SPECIALTY.
Red, White, Alfalfa & Alyke Clovers,
Timothy, Blue Grass, Orchard Grass, Red Top,
Onion Sets, Tree Seeds, Cane Seed, Etc.

(One block from Union Depot)
KANSAS CITY, MO.

TWO-CENT COLUMN--(Continued.)

EGGS.—Standard White Leghorn, Plymouth Rock, Brown Leghorn, \$1 per thirteen; Bronze turkey, \$2. E. B. Reay, Elk Falls, Kas.

SEED CORN.

J. G. PEPPARD,
1220 Union Ave.,
KANSAS CITY, MO.

EGGS.—Toulouse Geese, Wyandotte and Plymouth Hocks. \$1.00 each free. I. H. Shannon, Girard, Kas.

SHORT-HORNS AND JERSEYS—Males and females, of any age, for sale by John T. Voss, Girard, Kas.

POULTRYMEN!—The Fanciers' Review, Box K, Chatham, N. Y., a 16-page poultry journal, 25 cents a year. Three sample numbers 10 cents.

SEED CORN—Pure Golden Beauty, at \$1 per bushel. Sack free. Address Chas. McCoy, Thompsonville, Jefferson Co., Kas.

1,000,000 CRESCENT STRAWBERRY PLANTS—\$1.00, \$2.00; 5,000, \$1.75 per 1,000; 10,000, \$1.50 per 1,000; 20,000, \$1.25 per 1,000. E. J. Holman, Leavenworth, Kas.

WATER GRIST MILL—Dwelling and ten acres of land to lease or trade for Kansas property. B. N. Turk, Holton, Kas.

FOR SALE—A few colonies of pure Italian bees at \$5.50 each, and a few colonies of Carniolan and Italian mixed at \$6.00 each. J. B. Kline's Apiary, Topeka, Kas.

WANTED—To buy for cash one second-hand separator. Address Cheney Creamery Co., Cheney, Kas.

100 BUSHELS OF THAT EXTRA EARLY YELLOW ninety-day seed corn sold. One hundred bushels yet to sell. N. H. Brostus, Topeka, Kas.

EXTRA EARLY SEED CORN.—Orders filled at once at prices given in this column March 7, until further notice. W. L. F. Harden, Seedsman, Box 1, Hartford, Kas.

W—**TO EXCHANGE**—some beautiful building lots in B. Entwistle addition, just west of city, on street car line, with all kinds of bearing fruit, for immediate family use, for some good rich, clear Kansas land, unimproved, in Pawnee county preferred, but will consider offers from any locality. No agent's commission. Write direct to me, giving numbers, description and real valuation. M. A. Pond, Topeka, Kas.

20,000,000 HEDGE PLANTS—125,000 two and three-year-old apples, 500,000 Ru-sian mulberries, c. talpas, etc. A full line of nursery stock. Babcock & Stone, North Topeka.

FOR SALE—Twenty-five Thoroughbred Hereford Bulls. Extra fine individuals, of the Fortune, Wilton and Grove families. Also cows and heifers. This herd is one of the oldest and largest in the country. Address W. G. Hawes, Mount Pleasant Stock Farm, Colony, Kas.

TWO-CENT COLUMN--(Continued.)

KAFFIR CORN.—For 10 cents (postage stamps) I will send postpaid two ounces Kaffir corn, enough to raise seed for seeding thirty acres the following season. G. Hauschild, Box 46, Topeka, Kas.

FOR SALE—The fine imported Clydesdale stallion "Baifron." The above named horse will be offered at private sale for the next thirty days, and if not sold will be put up at auction on May 1, and sold to the highest bidder on a year's time with approved security. For particulars address Chas. H. Falk, Kinsley, Kas.

SEED CORN.—Do you want seed corn that will mature before the hot winds? Address Trumbull, Reynolds & Allen, Kansas City, Mo.

WANTED—To negotiate with parties interested in starting a cheese factory or separator creamery. Have some means and fourteen years experience as butter and cheese-maker. Address J. L. Ables, 1923 New Jersey St., Lawrence, Kas.

SEED-SOWERS.—For HAND or POWER seed-sowers, address Trumbull, Reynolds & Allen, Kansas City, Mo.