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THE WESTERN NATIONAL FAIR.

The Seventh Annual Exhibition at Bismarck Grove a Creditable Success--Principal Awards--Notes.

Notwithstanding a partial failure of all the cereals, and the one hundred days of hot and dry weather which immediately preceded this exposition, we are pleased to chronicle the success achieved by the management this year. Throughout eastern and central Kansas the season had been exceedingly unfavorable for a full and fair exhibition, consequently the representative displays made in every class and department of the fair were indeed gratifying. The writer is especially pleased to note that the management made a strong effort this year to remove the objectionable gambling features of disreputable fakes who try to ply their nefarious and unsavory vocations under cover of the license granted by fair associations. The Bismarck management made an advance step this season, and we expect to see better exhibitions every year hereafter. The KANSAS FARMER has always severely criticised this unsavory and pernicious increment to our agricultural fairs. The high moral tone of the citizens of Kansas should be respected, and fair associations that succeed in Kansas must of necessity furnish creditable and representative attractions and exhibits, and rid the institution of everything which has a demoralizing influence.

Agricultural hall was comfortably filled with county and individual displays, which were neatly and tastefully arranged. The first premium of \$400 was awarded to Wyandotte county; the second premium of \$200 to Douglas, and the third premium of \$100 was awarded to Jefferson county. An interesting and attractive display from Trego county occupied the central part of the hall, consisting of grain, grasses, vegetables and other products of the county, including the novel display of a miniature sod house and a little log cabin, the latter being made from trees grown on the timber claims of the county. This exhibit was made by the Trego County Improvement Association. Mr. and Mrs. Ben C. Rich had the same in charge, and won the good opinion of all for Trego county. In this hall F. B. Varnum, of Vinland, had a collection of sixty-three varieties of grasses, forty varieties of wheat, twenty varieties of oats in the sheaf; also fourteen bundles of tame grasses, ten bundles of spring wheat and twenty varieties of wheat in bushel lots.

Main exhibition hall was well filled with a tasty and diversified collection of merchandise, dairy products, textile fabrics, ores, entomological, geological and horticultural exhibits. The horticultural display was very good; Douglas county won the first prize of \$150. It was in the charge of B. F. Smith, Samuel Reynolds and Manly Bell. For five years this committee have done credit to themselves and to the Fair by their display. The second prize of \$75 was taken by Leavenworth county. This display was shown by Dr. J. Stayman, Geo. Black and Hon. E. J. Holman, and was a very extensive exhibit. The third prize of \$50 was taken by Allen county. The fourth prize of \$25 was won by Republic county, with J. Fulcomer, of Belleville, in charge.

The exhibit of poultry was good; a full report has been promised for another issue.

The exhibit of horses in the various classes was good, and consisted mainly of choice

animals owned in the State. The sweepstakes for thoroughbred stallion was awarded to F. D. Jones, Burlington; sweepstakes for standard-bred roadster mare to Wm. Sargent, Leavenworth; sweepstakes horse of all work, stallion, to Wm. Roe, Vinland; same class mare, J. H. Sanders, Topeka; sweepstakes on Clydesdale mare to J. H. Sanders; sweepstakes for French Draft stallion and five of his colts, I. M. Barley, Lawrence; sweepstakes for French Draft stallion, J. W. Anderson, Lawrence; sweepstakes for English Shire stallion with five colts, also mare, both awarded to I. M. Barley. The grand sweepstakes gold medal (value \$50) for best stallion of any draft breed, was captured by the imported French Coach stallion, Richelieu, owned by Geo. C. Corning, Topeka.

The Short-horn exhibitors were Col. W. S. White, Sabetha; W. P. Higinbotham, Manhattan; Walter Latimer, Garnett; U. P. Bennett & Son, Lee's Summit, Mo. The sweepstakes herd premium of \$100 was taken by W. P. Higinbotham, who also captured sweepstakes on bull. The sweepstakes for best Short-horn female was awarded to Col. W. S. White.

Herefords were shown by Shockey & Gibb, Lawrence; Walter Morgan & Son, Irving, and Lucien Scott, Leavenworth. The sweepstakes herd prize of \$100, sweepstakes for bull, and most of the first premiums in class were awarded to Shockey & Gibb. Sweepstakes for best Hereford female was awarded to Walter Morgan & Son.

Splendid exhibits of Galloway cattle were made by F. McHardy, Emporia; W. C. Weedon & Co., Kansas City, and M. R. Slate. Sweepstakes for best bull awarded to F. McHardy, and the sweepstakes for herd and female awarded to W. C. Weedon.

Very creditable showings of the Aberdeen-Angus cattle were made by J. S. Goodwin, Beloit, W. D. Lee, Leavenworth, and W. C. Weedon, Kansas City. W. D. Lee won the sweepstakes for best herd, also for best bull, and J. S. Goodwin won the sweepstakes for best female.

The Holstein-Friesian cattle were well represented by Saylor Bros., Morrill, Kas.; M. E. Moore, Cameron, Mo.; Wm. Brown, Lawrence, and W. C. Weedon & Co., Kansas City. The first two breeders named divided the class premiums. W. C. Weedon & Co. won sweepstakes on bull and five calves of his get. Sweepstakes for best cow went to Saylor Bros.

The Jersey cattle exhibit was made by Wm. Brown, H. S. Fillmore, A. B. Warren and D. D. Cochran, of Douglas county. Wm. Brown and D. D. Cochran captured most of the premiums. The general dairy breed sweepstakes for best bull and five calves was awarded to Wm. Brown's Jerseys. The herd sweepstakes for dairy breeds was awarded to M. E. Moore's Holsteins.

The swine display did not equal that of former years. H. S. Fillmore, of Lawrence, represented the Berkshire and Essex swine. The Chester White showing was the best seen for some time, and was made by Waltmire Bros., Carbondale, and H. M. Drake, Waveland, W. W. Waltmire winning the principal class and all the sweepstakes premiums.

The Poland-China swine was well represented by R. Baldrige, Parsons; I. F. Risk, Weston, Mo.; T. F. Miller, Avenue City, Mo.; R. L. Smith, Savannah, Mo. In the breeders ring, for best sow and five pigs, awarded to T. F. Miller; best boar and five

sows, awarded to D. F. Risk. In the general sweepstakes for all breeds, R. Baldrige received the award for best boar and D. F. Risk for best sow and best collection of swine.

R. T. McCulley & Bro., Lee's Summit, Mo., and Harry McCullough, Fayette, Mo., made fine showings of Merino sheep, the former receiving the first premiums and the latter the second prizes. The Shropshire sheep were well represented by U. P. Bennett & Son, Lee's Summit, Mo., and Messrs. Powell & Jones, Independence, Mo., and E. Jones, Wakefield, Kas. The Cotswold sheep exhibit was made by Messrs. Powell & Jones and D. W. McQuilty, Fayette, Mo.

Parkinson Sugar Works.

Kansas Farmer:

The works of the Parkinson Sugar Company have been a little late in starting, because so much of the machinery had to be manufactured specially for this work, and the orders were not given till the 1st of April. The machinery is now all in place, and is being thoroughly tested before the real work of the season begins. The diffusion battery works very well, the defects of last year's cells being remedied. The cells are larger, with the opening at the bottom instead of the side, and the process of emptying is rapid and thorough. The carbonation is very complete and of ample capacity. The filter presses for this work were constructed with special reference to capacity and rapidity of opening and closing.

We are expecting great things of the double-effect vacuum pan designed by Prof. Swenson, which, however, has not yet been used.

The quality of cane is very good, and the quantity very satisfactory, running from eight tons to a high as fifteen tons and more per acre. Some cane was ripe as early as August 1st, which would give us a long season if our works were ready in time, as, of course, they will be next season.

On a small experimental plot four varieties, Amber, Orange, Link's Hybrid and Honduras, were planted May 12th. The Amber was ripe August 10th, Orange August 25th, Link's Hybrid September 1st, and the Honduras will be ripe in a very few days.

Dr. Wiley is now here and has taken charge of the experiment on the part of the Government. By the 20th of this month we hope to be able to report results of work actually done.

Fort Scott, Kas.

Salaries--Railroad Aid.

Kansas Farmer:

In the FARMER of July 28th you advise the adoption of the constitutional amendment increasing the number of Supreme Judges, and also increasing their salaries from \$3,000 to \$5,000 per year. It is my opinion that the proposed amendment should be rejected. It is simply a repetition of the very old trick of tacking onto a needful measure a fraudulent provision, which would not in any other way be tolerated.

Experience has shown that the increase of public salaries beyond the amount which the recipient could earn in private life tends to corruption and a lowering of the ability of public office-holders by making public office a prize for which unscrupulous men will strive and can afford to spend large sums of money to obtain. Of all offices, it is of the most importance that a judicial office

should be free from this temptation. If the purity of our courts is an object, this fact alone should prevent an increase of salary.

The salaries of public officers are already too high. Salaries were raised to accord with our inflated war currency; and now that money has returned to its ante-bellum purchasing power, salaries of public officers should be reduced correspondingly, which would be at least 25 per cent. Such a reduction would serve the double purpose of reducing excessive taxation and increasing the efficiency of public administration. Will the editor please publish a list of the salaries of public officers in the State of Kansas?

I was glad to see the notice of the anti-monopoly convention at Topeka. I was not able to attend, but hope it was a success. The act allowing counties, townships and cities to give bonds or aid to railroads should be repealed this winter. The present law, by which the many poor are robbed of their hard earnings for the benefit of the rich few, simply legalizes robbery. The principal and only effective argument used to secure bonds is: "If you don't vote bonds some one else will, and we will go around you." So the people usually "stand and deliver" to the extent of the law. If this law be repealed this winter, the farmers will have to be active and watchful; especially will the Senate need attending to. Attend the primaries of your party, and see that they are not run by demagogues; get a dozen of your neighbors to go with you to the office of your local paper, and tell the editor that it will be for his interest to look after the farmer's interests; and, if the fellow has got any gumption, an article on Farmers vs. Monopolies will be forthcoming. Even demagogues will do what you want them to if they find you are in earnest.

If you believe what I have written, act! You can at least write to the KANSAS FARMER and say amen.

W. C. C.

Prairie Dogs Must Go.

The KANSAS FARMER's old friend, Wilson Keys, Sterling, Kas., while on a recent visit to California ran across a successful contrivance for ridding farms of such well-known pests as prairie dogs, gophers, skunks, etc. The article in question is called the "Acme Smoker," and is a very simple contrivance for forcing the smoke to the extreme ends of the burrows of these pests, which results in strangulation to them. Mr. Keys was so well pleased with the Acme Smoker that he procured one and succeeded in exterminating to his entire satisfaction a little prairie dog town on his own farm. He had the article of exhibition at Bismarck Fair, and the FARMER representative believes it will do all that he claims for it. In another place may be found his illustrated advertisement of the same, which he is manufacturing at Sterling, Kas.

A man has been fined \$50 for keeping a cow. The cow belonged to a neighbor.

Do you grow small fruits? If not, do so. In any event, be sure to send for the fall price-list of the South Lawrence Small Fruit Nurseries to B. F. Smith, lock box 6, Lawrence, Kas.

Henry Kelsey, Concordia, Kas., made a large exhibit of the Kelsey Creaming Cans at the Western National Fair at Bismarck Grove last week, and was awarded the \$15 prize for the best practical creamery can for summer and winter use.

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.
September 23—A. M. Strade, Short-horns, Parsons, Kas.
October 14—A. H. Lackey & Son, Short-horns, Peabody, Kas.
Tuesday and Wednesday of next Kansas City Fat Stock Show, Inter State Breeders' Association, Short-horns.

HANDLING A YOUNG HORSE.

In 1868, the book, "The Trotting Horse of America," wherein Hiram Woodruff logged the rich experiences of his long and valuable career, was given to the world; and in his pleasant note of the author, George Wilkes said, speaking of the American horse, and of Woodruff's connection with it:

"In this country we have 'a paragon of animals,' which is already the wonder of the world, and which, from the familiar, affectionate and almost universal use made of him on this continent, and from the growing demand which is made for him in other countries, has already become an American commercial product of great importance and proportions. It is certain that this animal is an American production—as much so, in fact, as the thoroughbred horse, which disdainfully gives weight at Goodwood and Ascot to the purer descendants of his Arabian ancestry, is a creation of the English breeding stable and the English race course. And it is also certain that the development of the American trotter to its present marvelous pre-eminence over all other breeds of horses used for harness and road purposes, is more due to Hiram Woodruff than to any if not to all other men who ever lived. Those who know the history of trotting in this country, and who recall to mind the average speed of the fast harness horse, when Hiram identified himself with its advancement, will not hesitate to say that he doubled the value of the original element on which he worked, and, at the end of a few years, gave a great animal to the country, in place of what had been only a good animal before."

These words, from a man who occupied such a position in the horse world as did George Wilkes, are freighted with significance; and I shall make this item of my suggestions concerning horse management depend upon what Hiram Woodruff himself has said, in regard to the true method of handling the colt while being bitted, and the horse in harness.

It is very difficult, the great developer of the American horse declares, to lay down rules for driving, because much must rest upon the disposition of the particular horse, and the methods which may have been pursued by those who were engaged with the duty of breaking him. The colt should be bitted and broken so that he shall have a lively, sensitive mouth, and be ready to answer to a light, neat touch upon the rein. The bit for a colt should not be of great size and thickness—a bar of moderate size, rather fine than thick. Such a bit is sooner felt, and the colt keeps his head up, and does not bear down steadily upon it. With a big bar-bit in his mouth, he is much more likely to hang on it, by which means the mouth is often made hard and callous. This is, of all things, to be avoided.

Colts do not require so much biting as they are commonly subjected to; and the biting apparatus ought not to be kept on them very long at one time, for this is what causes sore mouths, and they result in hard, unfeeling ones. If a big, heavy bit is used in biting, and it is kept in the colt's mouth long at a time, he will soon begin to hug down upon it, and the probability of his

having a good mouth for driving is lost; it will become hard and tough, and the horse will fall into the habit of always bearing the weight of his head upon the bit. When the colt comes to be driven, his driver should use a light, firm hand. The reins should be handled delicately and gently; the mouth is fine and sensitive, and should be kept so, because it is the great organ of communication between a good driver and his horse, particularly when the animal has been cultivated and improved into a fast horse. At speed, it is indispensable that the driver's wishes be communicated to his horse through the animal's mouth. He may encourage his horse by speaking to him, or may sting him to greater effort with the whip, but neither of these is half so good as the play upon the reins, with which the driver can let the animal know, through the lively, sensitive mouth, just what is desired of him.

Then the necessity of not impairing the colt's mouth by rough handling of the reins is to be considered. If the driver pulls and lugs at the bit, the colt, in his efforts to resist what hurts him, will very soon pull too, for he will find out that this benumbs and deadens the jaws; but this is at the expense of ruination to the mouth. It will become hard and insensible, and the first and largest part of the mischief which goes toward the making of a hard puller is done.

When the driving of the colt is begun, it will be necessary to find out what sort of bit suits him best. This is matter of experiment. Use bars and snaffles both, and all easy, and by feel of the hand, and observation of the way in which the colt carries his head, the driver will soon be able to ascertain which bit is preferable. The nicety of the driver's touch upon the reins should correspond to the lively sensibility of the colt's mouth. A bad-tempered, hasty man, will very soon spoil a good-tempered young horse. The use of the whip ought, as a general thing, to be avoided. In some cases it must be used, but never unless the horse knows what it is for; sore mouths, bad tempers and broken gaits are the almost inevitable results of ill-tempered handling.

If a colt has been well broken, and has a good lively mouth, and his driver handles the reins skillfully, the colt will soon learn to understand every move of the hand, and to answer it. It follows that a driver ought to make no move with the bit unless he has a definite object in view. Everybody admits that a very hard-pulling horse is a nuisance, and everybody knows that some horses will pull if they are to trot, and will not extend themselves without a strong pull; but, even in regard to these, it is not well to keep up a steady, rigid pull all the time. I say, rather, pull for a space and then ease off—not suddenly, but gradually—and by this means the horse will not pull quite so hard, and will trot faster.

A horse should be at his ease in harness; if he is not, he is at a disadvantage as serious as if he were sick or lame. One may see a horse brought out of the stable, with a very tight check to keep his head up, and a tight martingale to keep it down; a horse so harnessed is in irons. A steady, deadening pull is not the way to drive a trotting horse; the pull should be sufficient to feel the mouth, and give some support and assistance, so as to give the horse confidence to get up to his stride. To keep the mouth alive, the bit must be shifted a little occasionally. But this is to be done by a pull of the hand on the rein. A mere half turn of the wrist, or less than half a turn, by which the thumb is elevated, and the little finger lowered,

is sufficient to shift the bit, keep the mouth sensitive, and rouse the horse.

The reins are to be held steadily with both hands while this play with the wrist is made; and it is, of course, only to be done with one wrist at a time. When a horse has been taught the significance of this movement of the bit by the turn of the wrist, he will never fail to answer it, even though he should seem to be at the top of his speed. The moment he feels this little move of the bit in his sensitive mouth, he will collect himself and make another spurt; and the value of this way of driving is, that the horse is not likely to break when thus called upon, while a high-strung, generous horse, if called upon for a final effort with a whip, is as likely to break when it falls on him as not. "I have won many a very close heat," Woodruff adds, "by practising this movement, and therefore I have no hesitation in recommending it."

Another word about bits. Severe and complicated bits should not be used; only a bar bit or a snaffle is fit to be employed upon a trotting or road horse. When a horse has a good mouth—and a bad one is always the fault of bad breaking and driving—the easier the bit used, the better the horse will act, and the more speed he will show.

Confidence between the horse and his driver is of the utmost importance; it is all in all. Some men inspire it readily, so that a horse will take hold and do all he knows. The truth is, the horse is a very knowing creature, much more so than he gets credit for. If a driver has no settled system of his own, or if he is rash or severe without cause, it is not likely that confidence will be inspired in the horse. There should be, always, an understanding, between a man and his horse, or the latter cannot be relied upon to do his best. The readiest way to produce this, is to use the animal gently, but firmly, and accustom him to the system of telegraphing to him by means of the reins in the man's hands, and the bit in the horse's mouth. The whip is more likely to prove an obstacle than an aid.

It has seemed to me—and hence my extended application of Woodruff's remarks—that these suggestions will be of value to all who have to do with horses; primarily, Woodruff wrote for drivers—that is, for men whose business it is to handle and train horses; but young men who are bringing up colts for market, and gentlemen who drive for their own pleasure, can derive much benefit from consideration of these lessons of long experience.—*Alban Wye, in Country Gentleman.*

"Slinking" in Hogs.

A correspondent of *The Hog*, some weeks ago discussed this subject intelligently, giving some good advice and making many valuable suggestions. Here is his letter reproduced:

Hog-raising has many discouragements, and among its many mishaps there are few things more exasperating than aborted pigs. The loss therefrom is not only immediate, but extends into the future, inasmuch as it creates a habit with nature, causing even the healthiest brood sows to slip their young with each recurring pregnancy. Hence it becomes important to understand the agencies at work producing such results, in order that they may be counteracted.

Injudicious feeding is operative in producing a great deal of the trouble, and in my experience the following points have suggested themselves: The necessity for exercising special care in throwing out all blasted grain when feeding. Feed no smut corn to a hog under any circumstances, as the fungus growth upon the grain will produce almost instant abortion upon any ani-

mal in a pregnant condition. Under any circumstances it is a most prolific cause of gangrene. This smut is a parasitic growth from which the ergot of corn is produced. This well-known drug is in constant use (though mostly derived from rye smut,) to promote contraction of the uterus during difficult labor, or when, independent of labor it is desired to expel any morbid contents of the womb. Ergot contains a volatile alkaloid, termed secaline, which is one of the strongest irritants of the uterus known in the *materia medica*, and consequently, when taken into the stomach of the hog or other beast, in the form of smut, its effect upon the uterus is almost instantaneous, and abortion is inevitable.

When blasted corn is fed continuously it will produce convulsive ergotism, the symptoms of which are giddiness, loss of sight, the eyeballs frequently protruding, contraction of the muscles, nausea, convulsions and death. During the attack the appetite is frequently voracious, and vomiting profuse. The animal will often shed its hair and even its teeth. Gangrenous ergotism will also follow the feeding of this dangerous food, and it may be known by excessive lethargy, swelling of the extremities, and final decomposition and shedding of the hoofs. Notwithstanding all this evidence as to the necessity of special care in feeding, the hog is still looked upon as the scavenger of the farm, and as his food is unselected, he must suffer the inevitable consequences of disease and death. The poor brute, being anathemized as unsafe and unprofitable, his propagation is abandoned as a bad investment. Successful men, however, take the ground, that when properly understood—and no one should undertake their rearing without possessing such knowledge—they are the most profitable and satisfactory product of the farm.

All that has been said in regard to blasted corn applies alike to all the cereals; the smut of rye, for instance, being even more powerful in its baleful effects upon the system than that of any other grain; hence you will find a strong run of hog disease immediately after harvest, when the hogs are turned into the stubble. But these are digressions from my original point of discussion. It was my purpose to explain the active agents at work in producing so much "slinking" among sows, according to my observation. In examining the question one should not forget the physical condition of the sow during gestation, and the various influences at work detrimental to her health during this period. Prominent among them are her sluggish habits, which produce an abnormal increase in the secretions of the biliary organs, causing torpor and engorgement of the liver. The effect upon the system is extremely debilitating, the genital organs become weak and inactive, in consequence of which the foetus fails to receive proper nourishment, and inanition is the final result. Otherwise these poisonous secretions are absorbed into the circulatory system, vitiating the blood, and therefore rendering the mother liable to inoculate her young with the germs of disease. In either event an unhealthy condition of the uterus follows, which irritates it to abortion or immature birth. From these remarks it will be seen that any unfavorable conditions surrounding the sow, which are calculated to germinate poisons in the blood and consequently enervate the womb, and the young life which it contains, will eventually terminate in still-born pigs. It is imperative then that cleanliness should be rigidly enforced, and that comfortable quarters be provided, free from miasmatic influences and in-

fusorial life; ample range should be provided, and plenty of exercise should be enforced. It is a self-evident proposition that you cannot raise healthy pigs in filth; hence it becomes necessary to adopt every sanitary measure which reason and comfort can suggest. The hog cannot secure treatment too good for it, and success will be measured by the care exercised in their rearing. Another exciting cause of this trouble is the habit of feeding too much corn during pregnancy.

Food must be changed frequently, and should not be too rich. Too much corn, as is well known, is overheating, and will produce a plethora of blood, which causes undue excitement of the uterus, and often superinduces premature birth; besides it renders the sow more susceptible to disease influences, and should therefore be avoided.

Let it be remembered that if the sow is out of condition the foetus will be in sympathy with her symptoms, and under such circumstances the danger of "sinking" is ever present, which suggests the absolute necessity of keeping brood sows in perfect health at all times. This result may be best obtained by giving plenty of range and discouraging sluggish habits. Feed nothing but wholesome food, a frequent change of which will act as a tonic to the system. Keep their sleeping quarters well ventilated and clean, and regulate the bowels with occasional vegetable diet.

In the Dairy.

A New Kind of Churn.

The London Times, in giving an account of the recent agricultural show at Bath, says: Warm interest during the whole duration of the show was manifested in the working dairy under the management of George Gibbons, of Tunley farm, Bath, England, and in the lectures and demonstrations given by Rev. Canon Bagot, Prof. Long, Prof. Carroll, Miss Peel, assisted by a couple of Irish dairymaids, and the dairy manager of Sir Thomas Dyke Acland. Prof. Carroll, of Glassnevin, exhibited a novel and ingenious arrangement, by which a battery of small to and fro churns is made available for use in a butter factory or creamery. A series of separate churns, oscillating upon light springs, are agitated by connecting rods from a single spindle, each connecting rod being hooked to a lever arm pendulating below the horizontal spindle, so that it can be instantly set nearer to or further from the center of the lever arm; and thus the range of stroke, or in other words, the amount of dash in the churns action, can be instantly regulated according to the requirements of the cream in that particular churn. And each churn can be stopped and started independently of the others, while the motive power is kept continually going. This is of great value in a factory when it is desirable to keep each farmer's cream and butter separate, the butter being weighed and taken account of in detail before being mixed up in a uniform product for the market. The Laval cream separator was shown worked by a horse; but the greatest novelty was the delatouse of Mr. Pilter, of Paris, introduced into this country by George Barham, of the Dairy Supply Company. This was also arranged for simple driving by horsepower, an improvement upon the steam-power arrangement, which earned for it a medal as the greatest novelty at the last dairy show at Islington. The machine is on the principle of a centrifugal desiccator, and with due attention to proper temperature it operates

perfectly and with rapidity in extracting butter milk from butter when removed from the churn in a granulated condition. The Dairy Supply Company showed a new application of the alarm thermometer, with electric bell.

The New York Herald is correct in this: "Farmers are learning that at no season is it profitable to under-feed cows. Their product in milk, butter or cheese is worth more than the extra food required to produce it above what is needed to merely maintain life. The excessive feeding of corn has been one drawback to winter dairying. For a little time the milk and butter product is increased, but soon heavy feeding will run to fat and the animal will dry off and be fit only for the butcher. By mixing corn meal with wheat bran and giving both largely thinned with water, the ration may be kept up, but its fattening effect diminished at will. With a new milch cow the proportion of corn meal should be larger, as during the heavy flow of milk at this time the tendency is to run off flesh very rapidly unless the animal is full-fed. And herein is one great advantage in having cows calve in the fall rather than in the spring. They can be fed with corn meal late in the fall and through the winter and be in excellent condition to continue a full mess when turned out to grass. Whereas, if the calf is dropped in the spring the large flow of milk comes at a season when the food is most stimulating to extra milk production. By fall the cow will be down in flesh, and grain food will only result in fattening her.

There is rarely an enterprise that benefits a town, city, or county so much as an extensive creamery. Teams are employed to convey the cream from the farmers within a radius of from seven to ten miles, paying the farmers as much, if not more, for a gauge of cream, which represents a pound of butter, as they could get for a pound of butter if they marketed it themselves, saving them the labor of churning, packing, salting, and tubbage of the same, and with the new appliances for raising cream, one is enabled to get one-fifth more cream than by the ordinary way of setting milk. For instance, the dairyman in making ten pounds of butter per day, would have an increase of 730 pounds in the year, which at 20 cents per pound would amount to \$146, besides being relieved of the labor of making the butter. Further, it brings all the patrons of the creamery into the city or town where the creamery is located, from one to four times each month for their checks or cash, where they naturally do their trading, and the merchants get cash for their goods instead of an inferior quality of butter, and besides secure trade they would not otherwise get. So every reader can see that a creamery is a mutual benefit and a blessing to any locality. It is the most feasible plan of reaching the large butter districts, besides rendering the grade of butter uniform, and thus abolishing the quality of butter called poor and grase, also retaining the sweet skim milk for the calves and pigs — *Romeo Observer.*

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

Resources of the soil do not end abruptly at four or five inches in depth, yet there are hundreds of farms where all beneath is terra incognita, because no effort has ever been made to explore.

New Town. — Tribune, Greeley county, Kas. Just platted. Live men wanted. Colony of superior people invite all persons coming to Kansas to join them. Beautiful, rich government land near. Don't wait. Address H. C. Finch.

BREEDERS' DIRECTORY.

Cards of three lines or less, will be inserted in the Breeder's Directory for \$10.00 per year, or \$5.00 for six months; each additional line, \$2.00 per year. A copy of the paper will be sent the advertiser during the continuance of the card.

HORSES.

THOROUGHBRED AND TROTTER HORSES and Poland China Hogs bred and for sale. Write for pedigree O. B. Hildreth, Newton, Kas.

H. W. McAFEE, Topeka, Kas. — For sale, six extra good Registered Short-horn Bulls. Also Clyde-dale Horses. Three miles west of Topeka, 6th St. road.

C. W. GULP, Scotts Bluff, Kas., importer and breeder of Norman and Clyde-dale Stallions. Prices and terms to suit buyers. Correspondence solicited. Visitors welcome.

CATTLE.

FISH CREEK HERD OF SHORT-HORN CATTLE — consisting of the leading families, headed by Sharon Duke of Bat e 2d, 54451. Young stock for sale. Also Bronze Turkeys. Visitors cordially invited and welcome. Walter Latimer, proprietor, Garnett, Kas.

OKWOOD HERD OF SHORT-HORN CATTLE. — All recorded. Choice bred animals for sale. Prices low. Terms easy. Imported Earl of Gloster and Airdrie Rose of Sharon 49112 head herd. C. S. Eichholtz, box 12 8, Wichita, Kas.

DR. W. H. H. CUNDIFF, Pleasant Hill, Mo., proprietor of ALTAHAM HERD and breeder of fashionable Short-horns. Straight Rose of Sharon bull at head of herd. Fine show bulls and other stock for sale.

JERSEY CATTLE. — A. J. C. C. Jersey Cattle, of noted butter families. Family cows and young stock of either sex for sale. Send for catalogue. C. W. Talmadge, Council Grove, Kas.

GUERNSEYS — Elm Park Place, Lawrence, Kas. L. Bullene, dealer in registered Guernsey Cattle. Young stock for sale. Telephone connection to farm.

W. D. WARREN & CO., Maple Hill, Kas., importers and breeders of RED POLLED CATTLE. Thoroughbred and grade bulls for sale. St. Marys railroad station.

FRANK H. JACKSON, Maple Hill, Kas., breeder of HEREFORD CATTLE. Young thoroughbred Bulls always on hand for sale. Choice blood and quality.

T. M. MARCY & SON, Wakarusa, Kas., have for sale Registered yearling short-horn Bulls and Heifers, of each thirty head. Carload lots a specialty. Come and see.

J. S. GOODRICH, Goodrich, Kas., breeder of Thoroughbred and Grade Galloway Cattle. Thoroughbred and half-blood Bulls for sale. 60 High-grade Cows with calf. Correspondence invited.

CATTLE AND SWINE.

M. H. ALBERTY, Cherokee, Kas., makes a specialty of breeding Holstein-Friesian and Jersey Cattle, Poland-China Swine and Plymouth Rock Fowls. Eggs for sale. All stock recorded. Cattle and swine of both sexes for sale. Correspondence invited.

PLATTE VIEW HERD — Of Thoroughbred Short-horn Cattle, Chester White and Berkshire Hogs. Address E. M. Finney & Co., Box 790, Fremont, Neb.

ROME PARK STOCK FARM. — T. A. Hubbard, R. Wellington, Kas., breeder of high-grade Short-horn Cattle. By car lot or single. Also breeder of Poland-China and Large English Berkshire swine. Inspection invited. Write.

ASH GROVE STOCK FARM. — J. F. Glick, Highland, Doniphan county, Kansas, breeds first-class THOROUGHBRED SHORT-HORN CATTLE AND POLAND-CHINA SWINE. Young stock for sale. Inspection and correspondence invited.

DR. A. M. EIDSON, Reading, Lyon Co., Kas., makes a specialty of the breeding and sale of thoroughbred and high-grade Short-horn Cattle. Hambletonian horses of the most fashionable strains, pure-bred Jersey Red Hogs and Jersey Cattle.

SHORT-HORN PARK, containing 2,000 acres, for sale. Also, Short-horn Cattle and Registered Poland-China. Young stock for sale. Address B. F. Dole, Canton, McPherson Co., Kas.

SWINE.

ROBERT COOK, Iola, Kas., thirty years a breeder of Poland China Swine of the very best and most profitable strains. Breeders registered in O. P. - C. R.

F. W. ARNOLD & CO., Osborne, Kas., breed Poland China Hogs (O. P. - C. R.), American Merino Sheep, Wyandotte and Langshan Fowls. Young stock for sale. Write for terms.

WALNUT GROVE HERD OF POLAND-CHINAS V. B. Howe, proprietor, box 103, Topeka, Kas. My hogs are strictly thoroughbred, of the finest strains in America. All breeders recorded in Ohio Poland China Record. Chief Comarider No. 6, 75 at head of herd. Pigs for sale, from 2 to 10 months, from \$10 to \$25.

150 Pedigreed POLAND-CHINA and LARGE ENGLISH BERKSHIRE Pigs, \$10 and upward. F. M. R. JOKS & Co., Burlingame, Kas., or Boonville, Mo.

ELM GROVE HERD OF REGISTERED POLAND-CHINA Swine, Z. D. Smith, proprietor, Greenleaf, Washington Co., Kas. Has on hand pigs of all ages at reasonable prices. Write for what you want or come and see. Satisfaction guaranteed.

W. M. PLUMMER, Osage City, Kansas, breeder of Recorded Poland-China Swine. Also Light Brahma Chickens. Stock for sale at reasonable rates.

M. M. LAIL, MARSHALL, Mo., breeder of the finest strains of POLAND-CHINA HOGS and PLYMOUTH ROCK CHICKENS. Eggs in sea on, \$1 for 13. Catalogue free.

BAHNTGE BROS., Winfield, Kas., breeders of Large English Berkshire Swine of prize-winning strains. None but the best. Prices as low as the lowest. Correspondence solicited.

OUR ILLUSTRATED JOURNAL. — A full and complete history of the Poland-China Hog, sent free on application. Stock of all ages and conditions for sale. Address J. & C. STRAWN, Newark, Ohio.

SHEEP.

MERINO SHEEP.



Berkshire Hogs, Short-horn Cattle, and thirty varieties of high-class Poultry. All breeding stock recorded. Eggs for sale in season. Write for wants and prices. HARRY McCULLOUGH, Fayette, Mo.

R. HOFFMAN, lock box 808, Wichita, Kas., successor to Fox & Askew, breeder and importer of PURE SPANISH OR AMERICAN MERINO SHEEP. Baby Lord Wool and Young Lord Wool at head of flock. Fine rams and ewes for sale. Correspondence solicited and satisfaction guaranteed.

SHROPSHIRE-DOWNS. — Ed. Jones, Wakefield, Clay Co., Kas., breeder and importer of Shropshire-Downs. A number of rams and ewes for sale, at low prices, according to quality.

IMPROVED REGISTERED MERINO SHEEP, Poland-China Hogs, Light Brahmas, Plymouth Rocks and Bronze Turkeys — all of prize-winning strains, bred and for sale by R. T. McCulley & Bro., Lee's Summit, Jackson county, Mo.

H. V. PUGSLEY Plattsburg, Mo., breeder of Merino Sheep. Ewe average nearly 17 lbs.; stock rams, 34 lbs to 38 1/2 lbs. Extra rams and ewes for sale. Also Hereford Cattle.

POULTRY.

COLLEGE HILL POULTRY YARDS. — Pure-bred Brown Leghorn and Houdan Fowls for sale. Eggs in season. Send for prices. W. J. Grifing, College Hill, Manhattan, Kas.

SUNFLOWER POULTRY YARDS — T. S. Hawley, proprietor, Topeka, Kas. ONE THOUSAND FOWLS. Pure-bred, of the best strains, for this season's trade, consisting of the select and leading varieties. Send for my new and important circular. Satisfaction guaranteed.

REPUBLICAN POULTRY YARDS. PLYMOUTH ROCKS. — W. E. Doud, Eureka, Kas., breeder of Plymouth Rocks. Eggs, \$1.50 per 15. Birds for sale at from \$1 to \$5 each.

A. D. JENCKS, 411 Polk street, North Topeka, Kas., breeds the Hawkins, Conger and Pitkin strains of Plymouth Rocks. Young stock for sale.

EUREKA POULTRY YARDS. — L. E. Pixley, Eureka, 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.

EGGS. — For nearly three (3) years I have been collecting choice birds and choice stock, without offering any for the market. I am now prepared to furnish a few eggs of the following varieties: The large White Imperial Pekin Duck, \$1.50 per 14 (two settings); Light Brahma, Plymouth Rock and Rose-comb Brown Leghorns, \$1.25 per 13 Valley Falls Poultry-Yard, P. O. Box 237, Valley Falls, Kas. J. W. Hille, Prop'r.

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

BROWN LEGHORN EGGS — Pure blood and fine stock, from the celebrated Bonney strain of noted layers. Thirteen eggs for \$1.50; 39 for \$3.50. A few P. B. eggs, 13 for \$2.50 — very choice stock. J. P. Farnsworth, 62 Tyler street, Topeka.

LANGSHANS!

I have a fine yard of pure-bred Langshans. Can spare a few settings of eggs at \$2.00 per 15. Warrant eggs to be fresh. Chickens for sale this fall. J. A. BUELL, BLUE RAPIDS, KAS.

SHAWNEE POULTRY YARDS — Jno. G. Hewitt, Prop'r, Topeka, Kas., breeder of choice varieties of Poultry. Wyandottes and P. Cochins a specialty. Eggs and chicks for sale.

ONE DOLLAR PER THIRTEEN — For Eggs from my choice Plymouth Rock Fowls and extra Pekin Ducks. Mark S. Salisbury, Box 31, Kansas City, Mo.

MISCELLANEOUS.

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

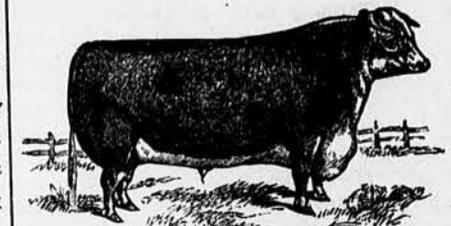
BARNES & GAGE, Land and Live Stock Brokers Junction City, Kas., have large lists of thoroughbred Cattle, Horses and Hogs. Special bargains in fine individuals. Correspondence solicited.

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

Jersey Cattle.

Fifty Herd Register and Grade Cows and Heifers for sale. Also several Bulls at low prices. Address O. F. SEARL, Solomon City, Kansas.

SUNNYSIDE STOCK FARM



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

FROM SUMNER COUNTY.

Special Correspondence KANSAS FARMER

Kansas, the home of progressive men and women, the glory of our country and the mainstay of the nation, is ever adding new laurels to her sovereign achievements, and natural to suppose, the counties composing this grand figure in our Union's galaxy are each striving for the foremost seat in her make-up, yet they all can't get there, be deserving as they may, and proper credit should be given each county for the indomitable efforts put forth in that direction. And taking the past, the present and the future into consideration, the writer is confident that Sumner county, the Queen of the West and the Pride of Kansas, will beyond a question of doubt maintain, as she does now, all others to the contrary notwithstanding. And parties seeking a home in the West should by all means take a trip to this favored part of the State and be convinced for themselves that the half has never yet been told, nor can it be for generations to come.

Sumner county is thirty-six miles long and thirty-three miles wide—an empire within itself. Over two hundred miles of railway traverse the county. Her fertility of soil and water privileges are all that could be desired and stand second to none others. With a population of 40,000 wide-awake, energetic, intelligent, progressive people, no wonder that Sumner develops so surprisingly rapid.

Wellington, the county seat, is a city of which any State might justly feel proud of possessing, being centrally located on slightly undulating lands, with commanding view of surrounding country, and in every way healthful and substantial in growth. She has a population of 8,000, with street railway, water and gas works. Church and school facilities are number one and society is the best. Temperance prevails, and prosperity is the result. The printed page is a feature with which Wellington and Sumner county is ably supplied, and each particular one is doing much toward setting forth the beauties of their fair domain.

Aside from the county seat there are numerous other prosperous towns within Sumner's borders—Caldwell, Oxford, Belle Plaine, Conway Springs and Mulvane, etc., all enjoying fine locations, and most of them ready to adorn metropolitan appurtenances.

The sixth annual Mechanical and Agricultural Exhibition of Sumner County took place at Wellington last week, and it is pleasing to chronicle the fact that it was successful far beyond the expectation of the management's fondest anticipation. The departments were all well filled, and in many respects much better than that of last year. The Association deserves unstinted adoration for their persistent and unceasing gentlemanly efforts in making this Fair the climax of all others heretofore held within Sumner county. Secretary Espy is, without any doubt whatever, the right man in the right place, and should be retained by all means, for through his thorough and systematic course the present grand results can be minutely traced. Hon. T. A. Hubbard, late Register of Deeds and the efficient President, and M. B. Keagy, Esq., ex-County Treasurer, is the Treasurer, which at once inspires confidence in those seeking a place where to exhibit stock, farm products, etc., to advantage. Long may this organization live and continue to do good.

On the third day of the Fair Hon. S. R. Peters, Gov. John A. Martin, E. B. Allen and J. W. Hamilton were present and addressed the immense throng of attentive people. Each gentleman being received amid welcomed applause, denoted in a great measure their election to the several places for which they aspire, as far as Sumner county can lend them aid.

Through misrepresentation a number of "fakes" and confidence men (?) succeeded in getting inside the fair grounds, but upon being found out the Association immediately had them arrested and placed in "durance vile," for which all good people accord them God speed—that is, the Association.

The exhibits in the cattle department were very fine, and consisted of Short-horns, Holsteins, Herefords, Polled-Angus, Jerseys and grades. Among the exhibitors were H. H. Davidson, of Wellington; C. F. Stone, Henry Blakesley and Jacob Weidlein, of Peabody. Henry Blakesley showed Short-horns, and secured five first and one second premiums, also first sweepstakes on cow and

bull any age or breed, and the herd prize of \$100. Jacob Weidlein captured on his Herefords four first premiums, three second, and second sweepstakes on bull any age or breed. C. F. Stone was successful in getting seven first and two second premiums on his Holstein cattle, and four first premiums and two sweepstakes on his Merino sheep. While at this Fair two of his Holstein cows, Maud Howe and Jit, each dropped a heifer calf. Both dams are imported stock. H. H. Davidson got on Polled-Angus four first and three second premiums and sweepstakes on cow any age or breed. Prof. E. M. Shelton, of the State Agricultural College, did the judging on cattle, and, taking everything into consideration, gave general satisfaction, which is very hard to do by the three judge system, as all know who have had any experience in that method of judging.

The horse exhibit was very complete, and showed a marked contrast between the mustang and Indian pony of days gone by and beautiful steeds and fine mares of the present day. Among the exhibitors were J. L. Hastings, J. M. Buffington, M. D. Covell, J. S. Williams, and others too numerous to mention, all of whom had fine animals. J. W. Tobie, Esq., of Panola, Ill., was the expert judge on horses.

The swine department was unusually full, the exhibitors being T. A. Hubbard with forty-two head of Poland-Chinas and Berkshires, M. B. Keagy twenty-four Berkshires, J. M. McKee eighteen Poland-Chinas, Isaac Wood twenty-three Poland-Chinas, E. W. Tilton twenty-three Poland-Chinas and S. G. Hutchinson three Poland-Chinas. In Poland-Chinas, T. A. Hubbard got six first and two second premiums, also one first and two second sweepstakes. Isaac Wood got one first and five second premiums and two second sweepstakes. E. W. Tilton took one first and two second premiums. J. M. McKee one first premium. J. F. Farris one first and one second premiums and one first sweepstakes. In Berkshires, T. A. Hubbard got six first and three second premiums and two sweepstakes. M. B. Keagy got four first and seven second premiums. Hon. F. D. Coburn, of Kansas City, did the judging, and from his remarks I take the following: "A display of Poland-Chinas and Berkshires that for superior quality and general excellence I have never seen equaled at a county fair."

The sheep were represented by Samuel Freese, Williams & Sons and C. F. Stone, consisting of Cotswolds and Merinos.

The poultry display was fine, and had several competitors.

In the special department much interest was shown and competition lively. J. S. Williams, of Corbin, got a set of double harness for best pair of mares owned by farmer in Sumner county. B. F. Smith, of Caldwell, got a fine cook stove for best bushel of corn. Ed. Barnard, of Belle Plaine, got a Blue Grass sulky plow for best load of corn. W. A. Armstrong, of Orie, got one set of good harness for best bushel of potatoes. G. W. Réam, of Wellington, got \$5 for best five ears of corn. Mrs. M. B. Keagy got a \$15 cashmere dress for largest variety and best display of canned and preserved fruits. Mrs. G. F. Pitts, of Wellington, got a fine clock for best loaf of bread. Miss Mossie Love, of Wellington, got a \$10 toilet set for best oil painting by amateur, and Miss Emma Hilyard, of Belle Plaine, got a fine mirror for best lady rider in saddle. HORACE.

Send for a Catalogue of Campbell University (Holton, Kas.)

Death borders upon our birth, and our cradle stands in the grave.

The first winter term of Campbell University opens November 9th.

A spring mattress, like a spring chicken, is in season all the year round.

When fowls are kept in a yard it is best to dig up a small corner occasionally to let them hunt for worms.

Let your onions grow until the tops fall, then pull them up. They should be allowed to become dry and be stored in a cool place.

E. L. McIlravy, President of the Lawrence (Kansas) Business College, will send, upon application, catalogue giving full information concerning that excellent institution. Send a postal card at once. Don't delay.

Gossip About Stock.

W. H. Alberty, Cherokee, Kansas, has this week on exhibition and for sale at Kansas City, a carload of Holstein and Jersey cattle.

The southern and western part of the State was blest with an abundant supply of rain during the past week, thus assuring streams of choice water for the fall and winter.

E. W. Tilton, breeder of recorded Poland-China swine, Oxford, Kansas, sold five head last week, to parties in different parts of the State. Roger Williams 5099 and Tom Corwin 3d 5293 head his herd.

On Friday, October 15, 1886, a very important closing-out public sale of 100 thoroughbred Poland-China hogs, also Short-horn cattle, will be made at Highland, Doniphan county, Kansas, by J. F. Glick, one of the best breeders in north-east Kansas. Don't miss this sale.

Anxious inquirers after Chester White swine, can hereafter consult the breeders' card of W. W. Waltmire, Carbondale, Kas., who is visiting the fairs with the best lot he ever owned. He reports an increasing demand for the breed. A Chester white sow weighed over 400 pounds at one year.

Eli Zimmerman, Hiawatha, Kansas, an old time Kansas breeder of Poland-China swine, advertises this week his first annual sale of recorded Poland-China swine and high-grade Holstein cattle at the fairgrounds at Hiawatha, Kansas, on Wednesday, October 20, 1886. Make money by attending the sale.

J. M. McKee, of Wellington, Kansas, appreciating the worth of an advertisement, presents a yearly card in this issue of the KANSAS FARMER. He breeds Poland-China hogs and fine poultry. During the past week this gentleman made several good sales of Poland-China pigs at remunerative figures.

On October 7th, near Burlingame, Kas., F. M. Rooks will make a public sale of 200 thoroughbred Poland-China and English Berkshire swine, both sexes. This is a rare opportunity to secure some first-class stock at low prices. A year's time at 6 per cent. will be given, or 5 per cent. discount for the cash.

L. E. Pixley, breeder of fine poultry, Eureka, Kansas, renews his advertisement and states that the KANSAS FARMER is the best paper in the West to reach people desiring poultry; and should other advertisers of the KANSAS FARMER reap as good returns, then surely their money is well spent, for he has been benefited more than an hundred fold.

H. H. Davidson, of Wellington, Kansas, now has over 250 head of Polled-Angus cattle with Bush Ranger 2d. Young Judge and Napoleon at their head. He made a good display at the Wellington Fair, and won several premiums. Those in search of black cattle that are true to their breeding, will do well to write to Mr. D. for what is wanted.

P. Van Slyke's colt show at McCune, Kansas, of recent date, was a choice affair, and from the interest taken therein and premiums bestowed, one would conclude that it might pay other parties in other portions of the State to do likewise. Everybody ought to keep none other but the very best of horses, and the proper way to bring this about is to encourage all enterprises of the nature above referred to.

Hon. T. A. Hubbard, proprietor of Rome Park Stock farm, Wellington, Kan., again renews for another season his card, and states that his Poland-China and Berkshire hogs are doing splendidly, and sales are improving. This herd took seventy premiums in 1885, ten of them sweepstakes. The respective herds are headed by as fine males as can be procured, his object being to please those desiring something good.

Isaac Wood, of Oxford, Kansas, proprietor of the Pioneer herd of Poland-China swine, exhibited twenty-four head at the Sumner County Fair, and while there, sold seven of them at paying prices. This gentleman, also, took first premium on thresher and bundle wheat, and on timothy and millet in sheaf. Our office is recipient of the sheaf of timothy which measures an average of four feet in height and with well developed heads. Mr. W. says that he has been very successful in growing all kinds of tame grasses, and from samples shown this

office, one has no reason to doubt but what others can do likewise.

A FARMER representative visited the district fair at Fall City, Nebraska, last week, and reports a fine display of stock, fruit and farm products. A good showing of draft horses was made by McDonough & Pitts, Stella, Nebraska, and N. B. McPherson and George Lichly, Fall City, Neb., who divided the premiums. A good showing of Short-horns was made, and the premiums were divided between the herds of Dr. Robert Patton, Hamlin, Kansas, and R. Anderson, Fall City, Nebraska. A splendid display of Poland-China swine was made by J. F. Glick, Highland, Kansas; Eli Zimmerman, Hiawatha, Kansas, and E. E. Carver, Guilford, Mo. The class premiums were divided. Mr. Zimmerman won sweepstakes on boar, and Mr. Glick on sow and the herd. Other departments of the fair made creditable displays.

The Saline County Fair was visited by a FARMER representative, who writes that the good quality of the exhibits was not surpassed by the quantity or numbers that he expected of such a grand old county. Excellent draft horses were exhibited by R. J. Blackledge and H. S. Dawson, Salina. The Clydesdale stallion, Glick, was shown by Olof E. Carlson, Assaria. W. A. Maxwell, of Mentor, made a good show of Short-horns, headed by Gems Antiquary 51690, and captured most of the prizes. Robert Muir showed some very choice Herefords. An exhibit of Holsteins was made by S. H. Derrington, Salina. Poland-China swine was the only breed shown, the exhibit being made by Jas. Haskett and George L. Page. Mr. Haskett had some of the noted Black Bess family headed by a boar from the famous herd of J. W. Baker, Sommerville, O. He will soon offer some choice pigs for sale through the columns of this paper.

A Question Submitted.

That excellent journal, the *Rural New Yorker*, submits a question to its readers. It says:

In February of last year half of a three-acre lot belonging to an esteemed neighbor was given eleven loads of city stable manure. It was spread evenly over the surface, where it remained thus exposed until the following April. The same quantity of manure was placed in a heap on the other half, where it remained also until April, having been turned often enough in the interval to prevent burning. It was then spread and the entire field (three acres) was plowed. The plowman noticed that the soil underneath the half upon which the manure was spread in February was mellow, yielding readily to the plow—while the other half upon which the manure had not been spread until April, was so much harder that it was easy to tell whenever the plow passed from one to the other. The manure pile had so shrunk during the winter and covered the acre and a half so sparingly that Mr. Bogert, the owner, concluded to give it an additional spread of three bags of high-grade complete chemical fertilizer, that is, at the rate of 400 pounds to the acre. The entire field was then harrowed and planted to potatoes. The vines of the acre and a half which had received the stable manure alone, spread in February, were thriffter during the season than those on the other part, and the yield of potatoes was one-quarter more. The entire field was then fitted for rye and seeded to timothy last fall, and to clover last spring. The rye on the half where the stable manure had been spread in February and which had received no chemical fertilizer was perceptibly heavier than that on the other half, and when the rye was cut, as now, the clover was so much thicker as to mark the boundary distinctly. Previous to 1885, the field had been treated in every way the same for many years, and so far as had been noticed the yield on the two halves was the same.

Mr. Bogert called the writer to look at this field and to explain why the two halves should yield so differently under the treatment described. Why was the manure which was spread in February more effective than the combined chemical fertilizers and the same quality and weight of manure which had been kept in a heap and spread in April. We have no satisfactory explanation to offer, and the question is submitted to our readers. It should be considered that the soil under the manure spread in February was mellow and friable as compared with the other part. But is that a sufficient explanation?

Two persons were seriously if not fatally wounded by pistol shots fired by a drunken rowdy at the Lyons, Rice county, Fair, Friday. There is no need to be annoyed and endangered by the presence of such fellows on Fair grounds. The management of any Fair can be rid of all drunken ruffians if they try. The instant a fellow in liquor is seen on the grounds he ought to be hustled out so fast that he would be at least half sobered up by the time he reached the gate. Such ruffians ought to be taught by the hands of men as well as by the hands of the law. They need to be handled roughly wherever found and especially when they intrude upon the presence of decent and well behaved people.

The Chicago Journal, inspired by a contemporaneous tribute to Kansas, quotes the first sentence and proceeds: "Kansas is a slice from the juiciest side of the earth. A few years ago it was a wilderness. To-day it is the garden of the world, redolent with the fragrance of the orchard and vintage, teeming with the homes of thrifty people, pulsing with the vim and vigor progress and mellow with the bloom of an almost perennial harvest. Last year Kansas sent to the East from her overflowing store houses a golden stream of grain, filled hundreds of their empty trains with the choicest of her herds and flocks, and standing on the threshold of this year's bounty, she sends greeting and welcome to half a million of their sons who would try their fortunes on her unbroken prairies. What Kansas will be in fifty years hence is beyond the comprehension of people now living."

A strange incident of the recent earthquake is reported at Savannah, Ga. A young lady suddenly recovered her hearing. At the close of the war her father was put in charge of Forts Pulaski and Jackson, below the city. While at the former fort, the daughter, then a bright intelligent child, had an attack of meningitis, which left her voiceless. The best medical skill was obtained, and the father took his afflicted child traveling, but nothing did her any good. She was dumb, but had all her other senses. During the excitement of the first earthquake shock, she in her fright, attempted to call her brother, and he was frightened himself when he heard her whisper his name. Since then she has gradually regained her voice and now talks with perfect fluency. She says she was almost delirious with joy when she found she could speak. Her voice was low and her throat sore for three days. She had trouble in finding words to express her thoughts. It was much like learning a new tongue, except that she knew words, but had forgotten how to pronounce them.

Here are some interesting facts and figures: "The area of the country, not including Alaska, is in round numbers 3,000,000 square miles. To produce our corn crop of 1,800,000,000 bushels, at an average yield of 25 to 30 bushels per acre, only requires about 4 per cent of this area. A 13 bushels of wheat per acre only 2 per cent. of our total area is required to produce 500,000,000 bushels. Putting the annual hay crop at 40,000,000 tons and the yield at 1 1/2 tons per acre, less than 2 per cent. is required. One per cent. will produce our oat crop of from 500 to 600 million bushels at an average yield of 30 bushels per acre. And two-thirds of 1 per cent. will produce our average crop of cotton of 6,000,000 to 7,000,000 bales at a yield of one-half to three-fifths of a bale per acre, and 1 per cent. will cover all minor crops such as potatoes, barley, rye, flax,

etc. Accepting these figures it will be seen that only a little more than 10 per cent. of our area is utilized in producing the crops of the country. But under a good state of husbandry, such as is practiced in Great Britain and on the continent, the yield per acre in this country might easily be doubled, supporting double the population it now does without any increase of acreage under cultivation. A large percentage of the uncultivated area, comprising nearly 90 per cent., is mountain, forest, desert, or grazing lands, much of which especially in all that portion east of the great plains region is susceptible to cultivation and production equally with that now under cultivation. We have scarcely as yet begun to test the productive capacity of this country, and shall never fully test it till the pressure of mouths to feed compel to better methods in agricultural production."

This, That and the Other.

Henry Cliff, of Ivy Hill, R. L., owns a cat which is 18 years old.
 Clara Belle says the favorite engagement ring has a sapphire and diamond.
 The first silk hat is said to have been made for a French sea captain in China, fifty years ago.
 A Preston, Conn., man has a cat whose favorite tid-bit is a nice fat grasshopper, which she captures for herself.
 Lieut. Goazson has invented a method for firing dynamite shells from ordinary cannon, which has just been successfully tried in San Francisco.
 The Chicago Mail figures it that \$2,500,000 is spent annually in the shape of salaries to officers of railroad pools, whose duty it is to prevent rate cutting.
 The value of the pig-iron produced in this country last year was \$73,000,000, a sum nearly as great as the combined value of the gold and silver products.

It is said by one who knows that all the "bad men" and professional killers of the West are blondes, with light hair and blue eyes. The traditional desperado, with raven locks and piercing black eyes, no longer exists.

The latest invention in hat lining is a map of the city of London printed on silk, so that any stranger or gay young fellow may find his way home or see at a glance if cabby is taking him the nearest route to his destination.

It appears that the crocodile, like the faith which formerly esteemed it sacred, is practically extinct in Egypt. The steamers plying the Nile have had more effect in driving it from the river than the guns of sportsmen, according to Prof. A. Sayce.

To kill moles an Illinois farmer puts strychnine in pieces of liver the size of a hickory nut, placing the pieces at different points in their runs.

The Commercial Department of Campbell University (Holton, Kas.) offers unsurpassed facilities for gaining a thorough business and English education.

A good Cremona violin has fifty-eight divisions. The back, neck, sides and circles are of sycamore; the belly, base-bar, sounding-post and six blocks of deal; the finger-board and tail-piece of ebony.

The Dutton Mowing Machine Knife Grinder has met with great success this, its first year, over 3,000 having been made and sold. Its manufacturers are preparing to make 50,000 to fill next season's demand.

The Japanese have not only nearly 300 miles of railroad in operation, but they make their own cars at Shinbaski, and the building of the line from Tsuruga to Ogaki was conducted by young Japanese engineers, whose task included two large bridges and a tunnel a mile long.

Send for a sample copy of Orchard, Vineyard and Berry Garden, a monthly journal devoted to the interests of the fruit-growers in the West. Subscription price only 50 cents per annum. J. R. Hendricks, editor, Cawker City, Kas.

Are You Going South?
 If so, it is of great importance to you to be fully informed as to the cheapest, most direct and most pleasant route. You will wish to purchase your ticket via the route that will subject you to no delays and by which through trains are run. Before you start you should provide yourself with a map and time table of the Kansas City, Fort Scott & Gulf Railroad (Memphis Short Route South). The only direct route from and via Kansas City to all points in eastern and southern Kansas, southwest Missouri and Texas. Practically the only route from the West to all Southern cities. Entire trains with Pullman Palace Sleeping Cars and free Reclining Chair Cars, Kansas City to Memphis; through Sleeping Car Kansas City to New Orleans. This is the direct route, and many miles the shortest line to Little Rock, Hot Springs, Eureka Springs, Fort Smith, Van Buren, Fayetteville and all points in Arkansas. Send for a large map. Send for a copy of the *Missouri and Kansas Farmer*, an 8-page illustrated paper, containing full and reliable information in relation to the great States of Missouri and Kansas. Issued monthly and mailed free.
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Among the various interesting summer romances is the following, contributed from Europe: A young lady was caught out in a storm. During a vivid flash of lightning she felt a strange and alarming sensation. It lasted only for an instant, however, and she proceeded to her home, where she removed her bonnet and discovered that her hair had been literally cut off, her head presenting, as the hair fell, the same appearance as though her head had been shaved with a razor.

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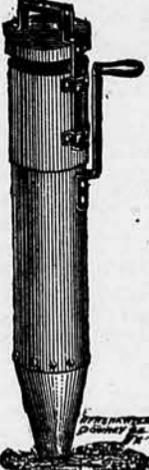
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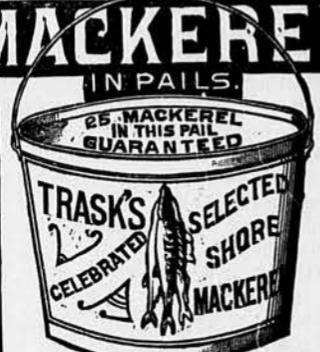


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 I will ship a sample to those desiring an agency or wanting one for family use, on a week's trial on liberal terms. A thousand per cent the best washer in the world for saving labor, clothes and soap. Pays capable agents BIG MONEY. Write for particulars to nearest address, J. WORTH, Box 516, St. Louis, Mo., or Box 1988, New York City.

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The Home Circle.

They Sleep.

Where are the friends whose hands we took
So often long ago,
Whose smiles would melt the ice of hate
As sunshine melts the snow?
The gentle winds that down the aisles
Of sacred memory sweep,
Are whispering at our ears to-day
In loving tones—"They sleep!"

They sleep beneath the wild red rose
And 'neath the hawthorn tree,
And some, I ween, have made their beds
Down in the restless sea.
They are not dead, while in our hearts
Their memories we keep
As green as grew the trusting tree,
Before they fell asleep!

Together in the old school-room
We turned the storied page—
Together read of warriors grim,
Of prophet, priest and sage.
How oft we sang the dear old songs,
Melodious and deep,
But far apart, in many lands,
To-day the singers sleep.

They sleep! but still the song is heard,
It cheers the heart to-day;
It cometh from a mystic land
That lieth far away;
And I a blessing send to them,
Who sing while yet I weep,
And plant a new rose in the dell
Where loving schoolmates sleep.

—T. C. Harbaugh.

Some say to us because our friends we love
So dearly—"God brooks not idolatry!
He'll take thy dear loved ones away from
Thee,
Thou lovest them so!" With all my heart I
love
To think this wrong. For our kind God
above
The truest synonym on earth must be
This one word "Love." And sure, the more
that we
Do love, the more God-like ourselves we
prove
To be. And what more worthy love shows
He
To us than His own image, Man? I know
We learn through loving God to love what
He
Hath made around us on our earth; and so
We love our God the best, it seems to me,
When most we love God-given friends be-
low! —Springfield Republican.

Music in the Family.

In taking up the subject of music I shall not attempt to dictate what instrument one should have to produce the best music, as the variety is great, and we all know that any well-tuned instrument under a skilled hand produces good music. I think there are few families but what have at least one member who has a taste for music, and there are very few families now in the country, as well as the city, who do not possess an instrument of some kind. And while I do not advocate that people should purchase an instrument with the first money they earn when they may need something else very much, I do think that music should not be overlooked, and that it is one of the branches of study that we can profitably interest ourselves in; for musical harmony does tend to perfect social and domestic harmony. There may not be discord, yet it holds the harmony. Music need not be entirely instrumental; many consider vocal music to be more elevating than instrumental, claiming more for the sentiment than melody; but all do not sing; many cannot sing, yet they may not be without music in their souls.

It is envy, generally, that causes people to denounce music. Those who have not had the opportunity of a musical education often object to the idea of teaching it to their children, as though it would prevent them from putting their minds on other important things; but that is a serious mistake. If they are not endowed with musical talent they will not spend more time and thought with it than is necessary, yet it will do them no harm; but if a child shows a great fondness for music, then by all means cultivate the talent by giving the best education you can. Do not crowd the child, however, and you will be well pleased with the result in time.

A mother may not neglect her family and yet add many little comforts to her home by her ability to teach music. While educating the children and training them for what they seem best adapted to, do not neglect the music if you can help it.

MRS. E. W. BROWN.

Carefully cut off the cucumbers when of the desired size. Pulling or twisting them off injures the vines.

Rosy Cheeks for the Little Ones.

Mothers who wish their children to brighten their homes with sparkling eyes and rosy cheeks—in other words to have sound minds in sound bodies—should pay particular attention to their diet. The food for children should be plain as to quality, and plentiful in quantity. Articles of food which are largely composed of starch, are of very little use in nourishing the growth of the body; in illness where simply bland, in-nutritious food is required to sustain a system that is not capable of digesting stronger aliments, these substances do very well. For a child under 6 years of age, the best breakfast is bread and milk, and fruit either stewed or fresh; this may be varied by substituting oatmeal, or Indian meal mush, if well cooked, for the bread and milk. For dinner, meat carefully cooked so as to preserve the natural juices, but without any made gravies or sauces, with vegetables and some light dessert, is all that is required, while the supper should consist of bread and milk, or its equivalent. All rich pastry, hot bread, fat meat, tea, coffee and spices should be avoided. The bread, either graham or wheat, should be twenty-four hours old. Potatoes are best roasted or baked. Eggs may be permitted, if fresh and plain boiled and rather soft. The proper way to cook eggs for old or young is to place them over the fire in cold water, and bring them to a boil, allowing about ten minutes for this process. Then set back on the range the vessel containing them, and if they are wanted soft, let them remain one minute, and longer for different degrees of hardness. By plunging them at once into hot water, the albumen is hardened and rendered indigestible, while the yolk is nearly raw.

It may seem absurd to give a rule for baking and boiling potatoes, but the experience of many will bear me out in the assertion that a properly-cooked potato is a rarity. For baking let them be of medium and equal size; wash them thoroughly and put into a quick oven; as soon as they yield readily to pressure, they are done, and should be eaten at once, if possible. Always serve baked potatoes in an uncovered dish, or they will be watery.

For boiling, pare off one ring around the potatoes, and if they are old, put them on in cold water; if new, in boiling; in each case with a tablespoonful of salt for each quart of water. When you can pierce them easily with a fork, drain off all the water, cover them with a folded dry towel, and set them on the back of the range until wanted.

Chops should have all the fat trimmed off, and be broiled over a clear, bright fire; when they are done, season them, using a little butter and salt, and serve with baked potatoes.

A beefsteak should be cooked in the same way. A tender chicken makes a nice dinner for children. Boil it, the inside being turned to the fire first, or lay it in a pan and cook it in a quick oven. Butter some toast, season the chicken with salt, lay it on the toast, cover and place in the oven for five minutes before serving.

A quantity of blackberry jam, made as follows, should be put up in every family where there are small children. To every pound of the fruit allow a scant three-quarters of a pound of good, light brown sugar. Boil for one hour, stirring to prevent burning. Eaten on bread at breakfast or at noon dinner in place of butter, this will be found very healthful, as are also ripe currants, mashed and mixed with half their weight in sugar. Sprad upon slices of home-made wheat bread. Fruits and berries of various kinds may be put into a stone jar, with alternate layers of stale bread and sugar, and cooked for an hour and a half. The drier kinds of fruit will need the addition of a little water.

To make oatmeal porridge, use a double boiler; stir two ounces of oatmeal into a quart of boiling milk, and when this thickens, add a pint of boiling water, and cook for three-quarters of an hour; just before taking from the fire, stir in a teaspoonful of salt.

Apple cake is a simple and tasteful dessert. Butter a pudding dish, dust first with flour and then with sugar; fill it with layers of apples sliced, sugar and bread-crumbs, sprinkling each layer with a little cinnamon. Do not use too much sugar, but pour two tablespoonfuls of molasses and two of water over the top before adding the last layer,

which should be of crumbs. Bake an hour. Fruit farina is good at this season. Sprinkle three tablespoonfuls of farina into a quart of boiling milk; flavor and sweeten to taste, and cook half an hour, stirring occasionally; then add a pint of any kind of berries, or sliced apples or peaches, and cook for twenty minutes longer. Serve with powdered sugar.

The healthiest family of children I ever saw had no food other than such as I have mentioned, and were unacquainted with the taste of cake or candy.—Palmetto, in Country Gentleman.

Diamond Edging.

Below are directions for knitting diamond edging, which I saw in a paper recently:

Cast on 9 stitches.

First row—Knit 3, narrow, over, narrow, over, knit 1, over, knit 1.

Second row—Knit 1, purl 1, knit 1, purl 1, knit 1, purl 1, knit 4.

Third row—Knit 2, narrow, over, narrow, over, knit 3, over, knit 1.

Fourth row—Knit 1, purl 1, knit 3, purl 1, knit 1, purl 1, knit 3.

Fifth row—Knit 1, narrow, over, narrow, over, knit 5, over, knit 1.

Sixth row—Knit 1, purl 1, knit 5, purl 1, knit 1, purl 1, knit 2.

Seventh row—Knit 3, over, narrow, over, narrow, knit 1, narrow, over, narrow.

Eighth row—Knit 1, purl 1, knit 3, purl 1, knit 1, purl 1, knit 1.

Ninth row—Knit 4, over, narrow, over, knit 3 together, over, narrow.

Tenth row—Knit 1, purl 1, knit 1, purl 1, knit 1, purl 1, knit 4.

Eleventh row—Knit 5, over, knit 3 together, over, narrow.

Twelfth row—Knit 1, purl 1, knit 1, purl 1, knit 5.

The above is easy to learn, and is quite pretty for children's underclothes.

The days begin to grow shorter and soon we will have the long evenings again; then don't forget to have some reading aloud before the children go to bed. Children are fond of poetry as well as prose; so in looking over the papers when you find any that you think they will enjoy, lay that paper to one side to read to them.

BRAMBLEBUSH.

Care of the Piano.

In these days of universal culture, when the study of music has almost ceased to be considered an accomplishment, and has become part of the ordinary routine of an educational course, when there is hardly a house in the country without one or more musical instruments, and when a piano is considered an indispensable adjunct to the furniture of at least one room, it is marvelous how little care is bestowed upon these valuable aids to our social enjoyment and gratification.

A few hints on the subject may be useful. The first thing to be remembered is that sun, damp and dust are the piano's worst enemies. To avoid the former, place it in a part of the room not reached by the sun's rays, but well out of the draught. Do not allow it to stand between the door and a window. For fear of damp, do not keep it during the winter months in a room where there is not often a fire. It is no uncommon thing for persons to give from \$500 to \$1,000 for a grand piano, and then leave it to perish in the best drawing-room, which is seldom used, and where fires are the exception.

Soon the strings grow rusty, and give out an ugly, rasping sound, instead of their former mellow tone. Then the owner begins to entertain an unjust suspicion that the instrument must have been inferior or imperfect, and blames the manufacturer instead of his or her own thoughtlessness in allowing so costly a possession to spoil, to save a few dollars' worth of coal.

Then as to the dust. The piano should always be closed when not in use, and a cover kept constantly over it. A covering for the front alone, placed inside between the panels or fretwork and the top, is worse than useless, as it only strains the woodwork and allows the dust free entrance. It should be made the size of the top of the piano, with a border all round about six inches deep. If made of satin or cloth to match the furniture, with crevel work and fringe, it forms a pretty ornament instead of an unsightly appendage.

If it is an upright or cottage piano, it should be often moved from its place, and the back and sides carefully dusted. There

are other reasons, besides keeping it free from dust, that necessitate its frequent removal. A lady residing in the country, who has been ill for some time, was much concerned on her recovery to find her piano, an excellent and much-valued friend, completely spoiled as to tone and touch. Upon examination it was found that an enterprising mouse had made a nest inside, and she and her young progeny had gnawed the leather off the hammers and otherwise destroyed the interior for sustenance.

The piano should be tuned once in three months at least; should always be kept locked when very little children are about, and the owner should be very chary of invitations to such performers as have a heavy touch, or in common parlance, are likely to "thump on the keys." An annoying incident occurred at a musical party where the hostess had not guarded against this latter contingency.

Two sisters were playing a duet which might well be described as "full of sound and fury, signifying nothing," each trying to outdo the other in noisy execution, when crash! crash! went two or three of the principal treble strings; then there was a ludicrous silence or dull thud during the rest of their performance, and, what was worse, every other piece was spoiled for the remainder of the evening, although the hostess had been particularly careful to have her instrument in perfect order for the occasion. Some people think that this kind of hard usage is good for the piano; they might as well think their boots improved by long walking in them.

It is only necessary to look inside at the delicately cut and covered little hammers, and observe the force with which they strike on the strings, and to remember that a well-made instrument has already a tension of nearly sixteen tons on its strings in a grand, and nine or ten in an upright, to convince the most obtuse that very violent performance is destructive in the highest degree, for "the power of blow in the hammer is thereby weakened, and the delicacy of touch and un-failing promptness of repetition, so essential for the requirements of the modern school of pianoforte playing," for the production of those subtle and delicate harmonies of Beethoven, Chopin, and all the glorious host of great masters and composers, becomes impossible with an overstrained and ruined instrument. Do not clean the keys with soap, or the beautiful white ivory will soon become yellow. A clean, soft duster, very slightly damp (if a dry one will not take a y stains or finger-marks off), is all that is required for a new piano; but if the keys are discolored by age, spirits of wine and whitening, very carefully applied, may restore them. The owner should clean the keys; if left to a servant's care they are apt to be quickly discolored by the use of soiled dusters or rough dusting. It is surely well worth a little extra care and watchfulness to preserve so faithful a friend as a piano is to the lover of music, cheering alike the long, cozy winter nights and the soft twilight of the sweet summer evenings.—Springfield Union.

Notes and Recipes.

Cheap Tea Cake.—One cup of sugar, one cup of milk, three cups of flour and one-half cup of butter, two teaspoonfuls of baking powder, one teaspoonful of caraway seeds and two teaspoonfuls of currants.

Cheese Omelet.—Beat up three eggs and add to them a tablespoonful of milk and a tablespoonful of grated cheese; add a little more cheese before folding; turn it out on a hot dish; grate a little cheese over it before serving.

Extra Tomato Catsup.—To one peck of ripe tomatoes allow one quart good vinegar, one teacup brown sugar, one cup salt, two tablespoonfuls each of ground black pepper, cloves and allspice, one tablespoon each of Cayenne pepper and celery seed, four large onions and eight or ten cloves of garlic. Boil the tomatoes together with the onions and garlic chopped fine till they come to pieces; strain through a sieve, then add the above ingredients, except the celery seed; let it boil till thick enough, then add the celery seed. Bottle and seal the whole. The garlic may be omitted if desired.

Scrofula diseases manifest themselves in the warm weather. Hood's Sarsaparilla cleanses the blood, and removes every taint of scrofula.

The Young Folks.

"The Hand That Rocks the Cradle."

They say that man is mighty,
He governs land and sea,
He wields a mighty scepter
O'er lesser powers that be;
But a power mightier, stronger,
Man from his throne has hurled,
"For the hand that rocks the cradle
Is the hand that rules the world."

In deep, mysterious conclave,
'Mid philosophic minds,
Unraveling knotty problems,
His native forte man finds;
Yet all his "ics" and "isms"
To heaven's four winds are hurled,
"For the hand that rocks the cradle
Is the hand that rules the world."

Behold the brave commander,
Stanch 'mid the carriage stand,
Behold the guidon dyking,
With the colors in his hand.
Brave men they be, yet craven,
When this banner is unfurled:
"The hand that rocks the cradle
Is the hand that rules the world."

Great statesmen govern nations,
Kings mold a people's fate,
But the unseen hand of velvet
These giants regulate.
The iron arm of fortune
With woman's charm is purled,
"For the hand that rocks the cradle
Is the hand that rules the world."

Our First Locomotive

Mr. J. W. Bardict, the General Passenger Agent of the Delaware & Hudson Canal Company's railroad, in a little pamphlet just issued, has been at some pains to present what he deems trustworthy facts about the first locomotive that ever ran upon an American railroad. According to him, the first of these engines was the Stourbridge Lion, so called because it bore a lion's head on the front of its boiler and was made by Foster, Boswick & Co., in Stourbridge, England. Horatio Allen, a young civil engineer, had been sent to England by the Canal company to buy strap-iron for the rails, chains for the inclined planes, and three locomotives for the levels of the projected railroad. He returned in 1825, and the first of the locomotives reached New York in May, 1829. It was set up at the West Point foundry at the foot of Beach street, in this city, and in the summer was shipped by boat to Honesdale, where it was put upon the iron-strapped wooden rails of the new road. It was of the pattern afterward known by the name of "grasshoppers," because of the walking-beams that elbowed up and down over the boiler, like the leg joints of those insects. It weighed seven tons, or less than one of our elevated railroad locomotives, but it had no such pulling power as they possess.

It was big and clumsy, with four wooden wheels, spoked and with iron tires. It had no cab, and the cylinders were upright. The first trip was made on August 8th, 1829, in the presence of a crowd collected from forty miles around.

An old Queen Anne cannon was brought up from New York to add its voice to those of the people. Predictions of failure were not wanting; the breaking down of the track, which was built largely on trestles and piles, was especially apprehended, and there was little inclination on the part of those present to trust themselves on the new vehicle. Mr. Allen, declaring that if there was any danger he was ready to meet it, took his position on the locomotive, and, after running slowly backward and forward a few times before the assembled multitude, pulled the throttle valve open, and, shouting a loud good-bye to the crowd, dashed swiftly away around the dangerous curve and over the swaying trestle, setting in motion the first locomotive that ever turned a wheel in the western hemisphere. The track was of strap-iron, spiked next the inner edge to large hemlock sleepers laid on cross ties. At the time of the trial trip the timbers and ties, though securely connected, had become warped, and in some places raised from the ground, by exposure to the sun. The road crossed the Lackawaxen river over a frail hemlock trestle 100 feet in height, and as the locomotive was found to weigh seven tons instead of four, as the contract had stipulated, it was feared by everybody that the trestle would not bear its weight.

As the Lion passed over the road the weight pressed everything underneath firmly down to its place on the roadbed, with no little creaking and groaning. The loco-

motive proved to be all that the engineer had expected. After running at a fair rate of speed as far as Seelyville, the Lion was reversed, and returned to the dock at Honesdale amid the shouts of the people and the booming of the cannon, having met with no accident and encountered no difficulty.

The Mariposa Grove.

They call it the Mariposa grove, but there's no grove about it, the big trees being a part of a dense forest, with no clear space in sight, and the giants not standing together and separated from the other trees, but scattered among them indiscriminately over several hundred acres of ground, there being perhaps 200 or 300 ordinary trees for every giant. The ordinary trees would be called giants in Missouri, many of them measuring ten and twelve feet in diameter, and towering up from 150 to 200 feet, but in the Mariposa "grove" they look small and attract no attention. Our first stop was made at the "Grizzly Giant," which the guide-book says is thirty-one feet in diameter three feet above the ground. Mrs. Udell had brought a ball of twine along, and everybody was given an opportunity to measure the circumference of the "Grizzly Giant" and take the measure home with him. The tree is a little larger two or three feet above the ground than it is at the base. We all wound up our lines without stopping to measure them, and will wait till we get home before verifying the figures of the guide-book. There are many taller trees in the "grove" than the Grizzly, but none so big round, and this tree was even larger—more than 100 feet in circumference—before it suffered the ravages of fire. Nearly all the trees in the Mariposa grove are more or less burned away at the base. The Grizzly measured sixty-four feet three inches in circumference eleven feet from the base, and one of its branches more than 100 feet above the ground is six feet in diameter, and would make quite a tree by itself in Missouri. Many of the taller trees in the grove measure some 300 feet. The Grizzly is but 267 feet, about three times as high as the Southern hotel or Lindell. The Calaveras grove, in Calaveras county, has still taller trees, one towering up 325 feet, but none are as large in circumference as the Grizzly Giant, the Wawona and two or three others of the largest trees in the Mariposa grove. The Wawona is twenty-eight feet in diameter and 265 feet high. The heart of the trunk has been burned out, leaving a hole big enough for our stage to drive through. The road runs through the tree, and every stage stops inside for a few minutes, long enough to give the passengers an opportunity to write their names on the "walls," which seem to have been planed down to a smooth surface for that purpose. Twenty feet above the ground the tree looks as green and fresh as any in the forest. The only house in the "grove" is a little shanty occupied by the overseer of the big trees. A brief halt was made here, and some of the members of our party utilized the time in climbing to the top of one of the big trees. It is hardly necessary to state that the tree was lying down, and that the climbing was done with a ladder some twenty-five feet long. All these big trees, and the little ones, were given by Congress along with the Yosemite grant to the State of California, to be held in trust for the benefit of the public. The big tree grant is two miles square and some fifteen miles from the Yosemite. Both the "grove" and the valley are in charge of a board of commissioners, consisting of the Governor of the State, an ex-officio member, and eight of his appointees.—*St. Louis Republican.*

"Home, Sweet Home."

In the spring of 1863 two great armies were encamped on either side of the Rappahannock river, one dressed in blue, the other in gray. As twilight fell the bands of the Union side began to play "The Star-Spangled Banner" and "Rally Round the Flag," and the challenge of music was taken up by those on the other side, and they responded with "The Bonnie Blue Flag" and "Away Down South in Dixie." It was born in upon the soul of a single soldier in one of those bands of music to begin a sweeter and more tender air, and slowly as he played there joined in a sort of chorus all the instruments upon the Union side, until finally a great and mighty chorus swelled up and down our army—"Home, Sweet Home." When they

had finished there was no challenge yonder; for every band upon that further shore had taken up the lovely air, so attuned to all that is hollest, dearest, and one great chorus of the two great hosts went up to their departed comrades in the spirit world; and when they had finished, from the boys in gray came a challenge, "Three cheers for home!" and as they went resounding through the skies from both sides of the river, "something upon the soldiers' cheeks washed off the stains of powder."—*The Future.*

The Size of the Spider's Thread.

I have often compared the size of the thread spun by full-grown spiders with a hair of my beard. For this purpose I placed the thickest part of the hair before the microscope, and from the most accurate judgment I could form, more than a hundred of such threads placed side by side could not equal the diameter of one such hair. If, then, we suppose such a hair to be of a round form, it follows that ten thousand of the threads spun by the full-grown spider, when taken together, will not be equal in substance to the size of a single hair.

To this if we add that 400 young spiders, at the time when they begin to spin their webs, are not larger than a full-grown one, and that each of these minute spiders possesses the same organs as the larger ones, it follows that the exceedingly small threads spun by these little creatures must be still 400 times slenderer, and consequently that four millions of these minute spiders' threads cannot equal in substance the size of a single hair. And if we further consider of how many filaments or parts each of these threads consist, to compose the size we have been computing, we are compelled to cry out, O what incredible minuteness is here, and how little do we know of the works of nature!—*Leuwenhoek, in 1685.*

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Cholera has appeared again in Italy and bids fair to be as bad as it was last year. There must be a great deal of filth in that country, or the people are careless in their habits.

Returns to the State stacionian indicate that the yield of corn in Indiana will be about 130,000,000 bushels, 10,000,000 more bushels than in 1885. Kansas will have that much, dry as the year has been.

To Kansas Poultrymen.

Kansas poultry-keepers ought to be out in force at the Fair to be begun at Topeka, September 28th. Most of the entries up to date are from Missouri. Here is a good opportunity for Kansas poultry-breeders to show what they have. Bring it out.

As to failures, a New York dispatch dated September 10th, says: Failures the last seven days throughout the country, as reported to R. G. Dun & Co., for the United States number 149, and for Canada 29; a total of 178, as compared with a total of 190 last week and 201 the week previous to last. The casualties are fewer in every section of the United States, but in Canada they keep fully up to the average.

Packing the ground, says an Indiana farmer, saves the wheat greatly from being raised out by frost. If there should be lumps as large as an unhulled walnut and fine earth enough to cover seed do not be alarmed, they will pulverize by freezing and thawing, run down on the roots and be beneficial. Never sow where the clods are so large that the hoes of the drill will raise out, leaving the grain in sight. Cover from an inch to an inch and a half deep. Use a drill on which the hoes can be set in line at will; when set zigzag, the wheat dropped by the front hoes is covered so deep that not near all comes up.

Salaries of Public Officers.

One of our correspondents this week touches a responsive key when he refers to the subject of salaries. His text is the proposed amendment to the constitution increasing the judges of the Supreme court from three to five and also increasing the salaries of the judges from three thousand to five thousand dollars a year. There is only one side to the propriety of increasing the number of judges. Any person who is at all conversant with the condition of that court in relation to the amount of business before it, knows that it is impossible for any three men to properly attend to it all and dispose of it as it should be done, in any reasonable time. The present judges work as hard as any three other men in the State, and they cannot keep up with the business. The right of appeal is one that is held very dear by the people, and as our population increases litigation keeps pace with it and thus the courts are crowded. There are now nearly ninety organized counties in the State, and there are twenty-three judicial districts. If there were only two terms a year in each county and two cases at every term were appealed, that alone would make up a docket of about three hundred and fifty cases. But in most of the districts courts are held in every county at least three times and in some of them four times a year, and at some terms a dozen cases are taken up to the Supreme court. Nobody objects to increasing the number of judges.

But there is objection to increasing the salaries of the judges, for the reason that it is believed by people quite generally that the salaries now allowed by law, three thousand dollars per annum, is enough. We all understand that the position of judge requires learning and a high order of talent that can not be bought for a song; but is not three thousand dollars enough to pay competent men in the office? Those who argue that public officers ought to be paid well, argue wisely; all working men ought to be paid well; but is there any good reason why men should be paid out of proportion to wages received by other persons in general? Roscoe Conkling, Wm. H. Evarts, Benjamin F. Butler, Robert J. Ingersoll, and men of that class receive large fees because they work for clients that are able to pay and have cases involving large amounts of money. It is said that Mr. Conkling's last year's business brought him sixty thousand dollars. Yet even he asked for and worked for and received two or three elections to the United States Senate, and he would be there now if he had not quarreled with President Garfield and resigned in a fit of political hysteria. Mr. Evarts makes as much money in his practice as Mr. Conkling, yet Mr. Evarts wanted and obtained a seat in the Senate. General Butler was a member of the House, was Governor of Massachusetts. The salary of a United States Senator is five thousand dollars a year, yet a fifty thousand dollar man not only accepts the office but asks for it—wants it. So it is as to all public offices. The salary may be low if judged by the standard of some men's income, still it is high when judged by the general average. While a few men, here one, there one, receive for their services ten thousand dollars a year and upwards, the average man works nearer the line of one thousand. Take lawyers as a class and average their income from the practice of law; it will not exceed two thousand dollars a year. One may make fifty thousand and another is barely able to live. Three thousand dollars is above the average; indeed, in Kansas, it is above the average among good lawyers. There has not at any

time been any difficulty in filling the bench with able men. Judges Kingman, Brewer, Horton, Valentine, they are not inferior lawyers, any of them; they are strong men in their profession, yet all of them asked for the place. They wanted positions on the Supreme Court bench; they got it, and they have never asked for an increase in their salaries.

Farmers who pay the great body of the taxes object to increasing salaries beyond what competent men can be obtained for. They do not pay men that they employ to work on their farms more than good men can be hired for to do the same work. Why should they reverse the rule in case of public officers?

There is another fact about this case that is not generally understood, and one that the people all should know and understand. A considerable number of lawyers in different parts of the State are already quietly but energetically "working up" their chances for appointment, to the new judgeships, assuming that the people will adopt the amendment, and we confess that our favorable opinion of the amendment has somewhat weakened since learning that candidates are already banking on the people's verdict. We believe that the amendment ought to be adopted, even with the increased salaries, because, (1) the number of judges ought to be increased, and (2) because its defeat will necessarily postpone a work that is needed very much in the interest of the people; but it appears from our standpoint to be in very bad taste for candidates to be setting their stakes in advance of the people's action.

Our correspondent will find an answer to his question concerning salaries of officers in another place, under the head—"Inquiries Answered."

Remedy for Tape Worms in Sheep.

A friend, an experienced stockman, sends us the following: "I have just read this week's FARMER, and see some one wants a remedy for tape worms in lambs, and I remember having found this inquiry some time ago. There is a very simple remedy, it is, squash seeds or pumpkin seeds, though squash is better; we used to crush the seeds and boil them with water to make a strong tea, of this we would give the lambs two or three teaspoonfuls diluted with a cup of water. We found this took a good deal of time, so later on we crushed the seeds and fed them to the lambs with some oats or bran, and it worked all right. A handful of seeds is enough for about fifty lambs. The tape worm originates in letting lambs drink creek water or out of pools, or rainwater that collects in low places; water the lambs always with pure fresh well water and you will have no tape worms."

Several additional earthquake shocks have been felt in Charleston since the great calamity, but none of them caused any fresh damage. Examination of buildings is made every day, and it is found that nearly every structure of any considerable size in the city is more or less damaged. A large number will have to be torn down and wholly rebuilt. Some have already fallen. Estimated damage to the city is \$5,000,000. Relief is pouring in from all quarters of the country. At Baltimore, the 10th inst., the Charleston relief fund amounted to \$27,000. In the stricken city itself subscriptions have reached \$161,000. All the great cities and many of the smaller ones are raising and forwarding money. The general government and several States have forwarded tents to shelter the houseless people. This is a grand good country where the great big heart of the people is moved to deeds of substantial relief when mis-

fortune befalls any considerable number of the people.

The Business Situation Good.

Healthy business indications continue manifest. September 10th dispatches to *Bradstreet's*, from leading trade centers, concerning the business condition of the country indicate continual improvement in the state of trade. The forecasts of recent weeks regarding the fall trade are being made good. The western cities generally report trade brisk and in large volume. Cincinnati sends word of a general hardening of prices and increasing demand. Since last reports a marked improvement in the jobbing trade is noted at Detroit. At Louisville trade shows a distinct gain over preceding weeks, and a spirited revival as compared with preceding years. Kansas City telegraphs increasing activity, with a more liberal movement than for several weeks. At Pittsburg and other points further east, trade has been halting measurably, owing to the unseasonably hot weather. The temporary ill effects of the hot weather on New England trade is noted at Boston.

The bank clearings at thirty cities for this week amounted to \$778,497,214, as compared with \$754,099,602 last week. The decline last week from the total of the preceding week was 4 6-10 per cent., and this week the decrease is 3 1-5 per cent.

The New York stock market shows a firmer tone, consequent upon the improvement in earnings, and a prospect that the granger roads will form a harmonious pool. Speculation until the close of the week was slack, but transactions in stocks amounted to 859,000 shares, against 433,000 shares last week. Bonds were a little more active, transactions in them amounting to \$5,347,000, par value, against \$4,869,000 last week. Money is much easier, call loans being quoted at from 4 to 5 per cent., and some instances of lower rates are noted. Time loans are up from 4 to 6 per cent., and commercial paper is firm. Foreign exchange shows a tendency to stiffer rates.

The earnings of forty-four railroads throughout the country for August gives \$17,984,688, against \$15,557,000 in August, 1885.

The New York cotton market has been dull and prices slightly weaker. The report of the National Cotton Exchange places crops of 1885-86 at 6,575,000 bales, against a crop of 5,706,000 bales last year. The total home consumption of cotton for the year was the largest ever known.

Dry goods commission houses at Boston report a fair amount of business doing. Prices are firm with occasional advances. While the mills are actively employed, the consumption keeps even pace with the production.

In the East, the inquiry for crude iron is moderate. St. Louis telegraphs that an increasing volume of iron is reaching consumption.

The domestic wheat markets have been without marked activity.

The New York *Tribune* says: Contrary to general opinion the peach prefers a deep rich soil, and only in such will it prove productive for any length of time. Of all fruits the peach is most particular in regard to perfect drainage. Procure sound, healthy trees, not too large; cut back the side branches to two or three buds, and the leader severely. After-pruning should be confined mainly to thinning out superfluous shoots, and always before they grow large. Curb your desire for having many varieties; a few will give the needed succession, and a much surer yield. Either unleached ashes or muriate of potash is an excellent fertilizer to use.

THE FORT SCOTT SUGAR FACTORY.

Last spring our readers were informed of the projected erection of a sugar-making establishment at Fort Scott, under the management of Hon. W. L. Parkinson, of Ottawa, Franklin county, this State. This week we publish a letter showing that the works have been started, and we are promised details as soon as the parts are all tested and the manufacturing of sugar begins in earnest. In the meantime, a description of the establishment will be interesting, and in this, we are aided by the letter above referred to and also by the Fort Scott Daily Monitor.

The Parkinson Sugar Company is so named because ex-Senator Parkinson organized it. The capital stock amounted to \$175,000. The government took an interest in the enterprise to the extent of agreeing to furnish a diffusion battery and carbonation and sulphurization apparatus. This was a combination of advantage to the company and the government alike, for it reduced the expense on both sides. The government could not conduct the necessary experiments without machinery complete, and this method of co-operating with a company that is going into the business, saves to the government the cost of everything except only the diffusion battery, and the company saves whatever the battery costs. Prof. Wiley, government chemist, is now at the works superintending the experiments, assisted by the company's chemist, Prof. Swenson, and his assistant, Prof. Hart.

The citizens of Fort Scott raised money and purchased a tract of 220 acres of land near the city which they conveyed to the sugar company, and the company bought 100 acres adjoining, so that the company own 320 acres, of which 250 were planted to sorghum cane.

Work was commenced on the factory last April, and now, as the *Monitor* puts it, the immense works stand in the midst of green fields of sorghum cane, the largest sorghum sugar factory in the United States, the only other factory in operation this year being situated at Rio Grande, New Jersey. This building is 184 feet in length, facing the west, and is 54 feet in width. It is three stories high, with an addition of a fourth story in the center of the building. South and west of the main building a smaller structure, to be of brick, is in course of erection, which will be used as a warehouse, for storage of sugar and sirup. North of the factory are the boilers, eight in number, representing in combination .50 horse-power. On the south and east of the main structure are the weighing apparatus and cane sheds. Here the cane is delivered, the contracts specifying that the cane be delivered with the leaves and seeds still on.

The cane is first fed upon an endless belt, some twenty-five feet long by ten broad, which carries it to a circular saw, which lops off the tops. Thence the cane is thrown into three carriers, which take it to the cutters. These are three ponderous machines, containing a series of knives, each cutter having a capacity of seven tons of cane per hour. These cutters chop the cane up into little chips, one-eighth of an inch in thickness, and deliver the chips to another series of carriers, which carry them to the diffusion battery. This battery is a succession of fourteen strong cylindrical vessels each four feet in diameter and seven feet in height, made of heavy boiler iron. They are emptied from the bottom and not from the sides as did those used last year at Ottawa. These vessels are called cells, and they and their connections are called a diffusion battery. The weight

of this battery is fifty tons. Each of these cells will hold a ton of cane chips. When the cells are all filled with chips they are carefully closed, and warm water is introduced into the first cell; here the chips are macerated for from six to eight minutes, when the water, which has now absorbed about one-half the free sugar in the first cell, is withdrawn, and introduced into the second cell, while fresh, clear water is put into the first cell again. In some six or eight minutes more the liquor in the second cell is forced into the third, that of the first into the second, and fresh water is again introduced into the first cell. The process is repeated again and again, until the water which was originally in the first cell has made the circuit of fourteen, from the last and fourteenth cell of the battery it is introduced into the measuring tank.

There are two of these measuring tanks, and after the juice from the cells is introduced into them it is passed into the carbonation apparatus. There are four of these carbonating tanks, ponderous machines, built by Pusey & Jones, of Wilmington, Delaware. In these tanks the raw juice from the diffusion battery is treated with from 1 to 1½ per cent. of its weight of lime, in the form of milk of lime. This milk of lime is made at the factory, consisting of one part of lime and three parts of water. The lime is then precipitated by passing a strong current of carbonic acid gas through the mixture. The lime falls to the bottom of the carbonating tanks in the form of carbonate of lime, carrying with it most of the coloring matter in the sorghum. The milk of lime also neutralizes the acid which may be present in the juice.

From the carbonation apparatus the juice is pumped through the filter presses, in order to remove the precipitated carbonate of lime and other mechanical impurities from the sirup. The pump used for this purpose, called the mud pump, is a very massive arrangement, and was imported from Germany.

From the filter presses it goes to the sulphurizing tanks, where it is subjected to a strong stream of sulphurous acid gas. This gas throws down what lime may have remained unprecipitated, and removes the rest of the coloring matter, leaving the juice pure and bright. There are three of these sulphurizing tanks, which were imported from Germany, as were also the filter presses through which the juice is pumped after sulphurizing.

After the juice has been pumped through the second set of filter presses it is ready for evaporation. This is accomplished in two immense evaporators, each eight feet high, six feet wide, and sixteen feet long, which evaporate by steam heat. These are called double effect vacuum evaporators, and were designed solely by Prof. M. Swenson. These evaporators are great improvements over the old style, and accomplish as much reduction in the volume of sirup in ten minutes as the old process of boiling did in one hour. They are entirely original with the Professor, and nothing like them was ever made or used before. The idea is to produce as rapid evaporation as is possible with the least possible exposure to heat. It is the protracted exposure to heat which darkens the average sorghum sugar and sirup, and this improved process will produce a bright, clear, light-colored sirup.

From the evaporators the sirup is sent to the strike pan, a great tank with a capacity of fifty barrels. In this the sirup is finished, and is transferred from the strike pan to the crystalizing wagons. Here it remains for some time

until thoroughly crystalized, and then goes to the centrifugals, which complete the process of separating the sugar from the sirup.

There will be a few barreling tanks in the factory, but most of the sirup will be pumped into the warehouse, where the great reservoir holds 100,000 gallons of sirup.

The factory furnishes employment for one hundred men daily. Two carloads of coal are consumed in the furnaces, and from 3,000 to 4,000 pounds of lime are used in the carbonating apparatus per diem. The lime and the carbonic acid gas are furnished by the company's lime kiln, near the main building.

The company has some eighty contracts already made for cane, comprising the entire crop from 550 acres of land. Besides this the company has 250 acres of cane on its own land, making 800 acres ready for use.

The estimated capacity of the works is 150 tons of cane per day, yielding 10,000 pounds of sugar and 2,000 gallons of sirup every twenty-four hours.

The diffusion process is a soaking of the pith of the cane in which the sugar is; the water takes up the saccharine matter (the sweetness), and after it has been applied to different cells of chips fourteen times, it has not only about all the sweetness out of the cane, but it is about as sweet as it can be itself, and then, as above described, it is evaporated, leaving the sugar.

The object in having the cane delivered with the seed on is two-fold: It is easily seen by the manager of the factory whether the cane is ripe and in proper condition for extraction of sugar, and the company saves cane by having the tops cut off at the factory, besides being assured that the work is done in the proper manner. The seed is mostly shipped south, where it is sown for forage. From 12,000 to 15,000 bushels of seed is thus saved each year.

We expect to be able very soon to present to our readers a report of the active operation of this the first successful effort to establish a permanent sugar factory in Kansas.

Dry Weather in Illinois.

It is comforting in this selfish world to know that other persons as well as ourselves are in trouble. Misfortunes are easier to bear when large numbers are afflicted. At any rate that is the way we mortals feel about it. In Kansas we have had some dry weather. So it has been in many other places. We are no worse off than our neighbors in a dozen other States. Here is a dispatch showing the weather condition in the region of Champaign county, Illinois. It is dated Tolono, September 10th. It says:

"The drouth in this locality is getting to be a very serious matter. Several weeks ago the wells began failing, and now a large part of them, both in the town and country, are dry. Every stream and pond in the country about here is as dry as a powder house, the only exception being the Embarras river on the east and the Kaskaskia on the west, along the channels of which a few stagnant pools, filled with fish, are to be found, while in other places the sun has licked up the water and left great lots of fish to perish and putrify. When the fish are still alive they are literally scooped out, so thick have they become, as the quantity of water has gradually dwindled away. The water at the Illinois Central Railroad shops, in Champaign, has been so low for some time that engines have had to be taken to Centralia to wash out the boilers, and now there is not enough left for steaming purposes, and the tenders have to filled elsewhere. Live stock, of course, comes in for the

greater part of the suffering. The town cows in Tolono, numbering nearly 100, are daily seen frantically rushing about the streets in search of water. Horses and cattle in the country, in many cases, have to be driven long distances to obtain drink. A very few light showers have kept the grass in better condition than would be expected under the circumstances, but in many neighborhoods the pastures are badly burned out. The corn in most of the fields is parched up and bleached out by the sun's rays until it has every appearance of having encountered a killing frost. The earth is full of great deep cracks, and the ground is baked until fall plowing is almost impossible. Steam threshers are denied water for the engines almost everywhere they apply. The people who have water are as careful of it as they would be of sugar or flour. Twelve years ago a similar drouth prevailed here. The lack of pure water then brought on an epidemic of diphtheria which caused forty deaths among the children of Tolono and as many more in the surrounding country. The more sensitive people are now almost paralyzed with the fear that a plague may result from the present drouth. Unless rain soon relieves us there will be terrible suffering all about here. No rain to wet the ground three inches deep has fallen for three months."

Inquiries Answered.

[NOTE.—Our friends will favor us by not requesting answers to their questions by letter. Our time is so much occupied with the work of the paper that we cannot attend to these individual requests. We want to answer every proper question asked, but it will be done in the FARMER, and then all our readers get the benefit of it.—EDITOR.]

DISEASED SHEEP.—The case stated by C. A. B. is probably caused by lung worms or grubs in the head. If there is no coughing, it is most likely grub in the head, in which case, anything which will cause sneezing will do good; sneezing forces the worms out. If any remain, they can be removed only by paring the bones and washing the grubs out with water from a syringe. To produce sneezing, introduce snuff, solutions of salt, vinegar, tobacco, weak solutions of turpentine, etc., into the nostrils. It is not contagious. The cow has probably taken cold, and if that is all and the case is not too far gone, feeding warm bran mashes and keeping in dry and comfortable quarters will be sufficient. If the case has become serious, the nose must be steamed with hot water mixed with oil meal and the air ought to be charged with sulphur fumes slightly. And if the bowels are not in good condition, give injections of warm water, or if necessary, give light laxative, using Glauber salts.

OFFICIAL SALARIES.—Will the editor please publish a list of salaries of public officers?

—The Governor's salary is \$3,000 a year; Lieutenant Governor receives \$6 a day for the time actually employed, and he receives mileage both ways, 15 cents a mile; Secretary of State receives \$2,000 a year, as also do the Auditor, Superintendent of Public Instruction, the Attorney General, and Warden of the penitentiary; the Treasurer receives \$3,000; Judges of the Supreme court receive \$3,000 a year, and District court Judges receive \$2,500. Speaker of the House receives \$3 a day extra for every day that he presides over the House. Chief Clerk of the House and Secretary of the Senate each receive \$5 a day for the time employed; all other clerks of the Legislature, door-keepers, Sergeants-at-arms, etc., receive \$3 per day; pages (messengers) \$2 a day.

HARD-PAN OFFER.

For only \$1 we will send the KANSAS FARMER to each one of a club of four new subscribers for three months. We sincerely hope that every reader of the KANSAS FARMER will secure a club of four or more new subscribers at rates above named.

Tell your neighbors to form a club of four subscribers to the KANSAS FARMER for three months at 25 cents each.

Horticulture.

Take Care of the Orchard.

If farmers knew the actual worth of an orchard many of them would take better care of this, the most valuable part of the farm. A good apple orchard will yield better profits than wheat or corn or potatoes. But the orchard must have care. There are, however, as the *Farmer's Advocate* well suggests, few operations in farming but have both advantages and disadvantages, and this is especially true in the treatment of orchards; no inflexible rule can be laid down to suit all conditions. Trees are plants, like all other farm crops, and if the soil containing the one should be cultivated and manured, what reason can there be for making an exception in the case of the other? It takes exactly the same plant food to build a tree and form an apple as it does to manufacture any other farm crop; and yet many farmers expect to keep on cropping the orchard, and get the trees and fruit thrown in for nothing; they think they should not plow without planting. If the trees are farther apart than the stalks in a corn crop, it is just for the same reason that corn is set farther apart than wheat, the difference being merely a matter of degree, and every crop should have space consistent with its root and foliage dimensions and with the quantity of heat and light to be admitted from the sun. A crop of grain or grass may be grown in an orchard just on the same principle as radishes may be sown between rows of cabbage; if the soil is rich and clean, both will flourish so long as the cabbage leaves do not overshadow the radish plants.

Orcharding can be conducted on the intensive scale as well as other branches of farming; not that the trees can be planted closer together than usual, but the productive capacity of each tree can be doubled. To grow a large, woody tree, producing very little fruit, is like growing a large-framed voracious cow which gives a small flow of milk of inferior quality; it is much cheaper to grow a small cow that gives a large flow of milk—or, still better, a large cow that gives a very large yield of milk.

Of the methods of treatment we have (1) cultivation without cropping, and (2) seeding down. In poor soils there should be constant cultivation and liberal manuring without cropping. The objection to this method is that the surface roots are being constantly disturbed or broken. This difficulty may be more or less overcome. If the land is plowed in the spring the broken roots will be repaired before active growth commences, very little damage being done, and the cultivation during the remainder of the season will consist in merely scuffling to keep down the weeds. The main advantages to be gained by thorough cultivation are (1) the increase of soil moisture, and (2) the increase of fertility caused by tillage and the absorption of nutritive material from the atmosphere—both of which are required in a poor soil. Other methods of increasing the fertility may also be required, of which we have (1) barnyard manure, (2) green manuring, and (3) commercial fertilizers. Of the first nothing need be said, but in the second a word of caution is necessary. Clover, which is the best green manure for all other purposes, is unsuitable for orchards. The roots go down deep into the ground, and take up the nutriment which should have been left for the deep roots of the tree, and another disadvantage is, you can't plow the land early in the spring, when it should be plowed; if clover is used at all it should be mown in June, and left scattered on the ground

as a mulch, being careful not to leave any near the trunks of the trees. Rye sown in the fall should be used for green manuring, as it is a shallow rooter, and may be turned under early in the spring.

Seeding down should only take place when the soil is rich or when liberal top-dressings are applied. The chief objections are (1) the deep clover roots, as before mentioned, and (2) the liability of the ground becoming sod-bound, preventing the admission of air and choking up the feeding roots of the trees. This may be prevented to some extent by keeping out heavy stock, admitting only calves, sheep and pigs. But the breaking up of the sod plays havoc with the roots of the trees, and they are encouraged to go down into the cold, hard earth, producing late crops of fruit, usually of an inferior quality. But in some situations there is a point gained in producing lateness, especially where late spring frosts abound. By retarding early budding the blossoms often escape these frosts; but this can be brought about by other means than by cultivation; the trees may be mulched late in the fall, after the first heavy frosts which will keep the ground moist and cool in the early spring, preventing too early a growth.

But does all this labor and outlay pay? Why, certainly. You will have as much fruit from one acre as you will have from two or three under the ordinary mode of treatment, the profits of the surplus acre or two paying for the extra expenditures, and the superior quality of the fruit will more than pay for learning how the orchard should be treated.

Insects and Their Prevention.

A strange incident occurred this last winter in connection with my green houses, and although I cannot explain it, I will give you the circumstances connected with it, so that you can judge for yourselves. This last winter I only smoked my houses once with tobacco for green-fly, and that not for any appearance of it, but as a preventive, always believing that prevention is better than cure. No appearance of green-fly was ever seen during the remaining portion of the winter, which to me seemed very strange. Nothing but the precautions I took to prevent them can I assign as a reason. During the summer I always see that the houses are thoroughly cleaned in every crevice, either by paint or washing; in fact, everything is refreshed during this season. If plants are in the houses they are looked over and washed, all old soil removed from the top of the pots and fresh added, and, above all, the flower pots are made clean, not only because they present a better appearance, but because much insect life is often attached to them. We all know that there are some species of plants that are greater favorites with green-fly than others; such plants I keep in the lowest temperature, as I always judge that when plants become much affected a lower temperature will suit them better. We have many long-standing notions about plants, and when one is said to be a stove-plant then we think it must be treated as such. I have changed my opinion in regard to many of these, and find that, when given a colder atmosphere to live in, in most cases I have increased the strength and vigor of the plants; and this is no doubt a great help in overcoming the attacks of insects; as a heated and impure air is the favorite resort of most of these pests.

Some persons contend that a strong, healthy plant, growing vigorously, is not so liable to attack as when growing slowly. In this I do not altogether agree, although they produce as proof

that when plants come into full vigor in the spring the insects disappear; but if they were confined in the same close atmosphere as in winter I do not think their condition would be much altered. That which has most to do with it is perhaps the introduction of plenty of fresh, bright, sunny air, which seems to render the insects so soft (so to speak) that they melt away under it. Prevention, as much as lies in your power, is the best and truest method of battling with those insects so detrimental to success with inside plant culture. The results that have followed my precautions this past winter in the freedom from insect pests I can attribute to no other cause than to the precautions I took as a preventive.

It is best to start a fresh lot of all soft-wooded plants, such as coleuses, geraniums, heliotropes, fuchsias, etc., to renew the stock as far as you can, as a second year's confinement reduces the vitality in a more or less degree, and your reward will be a fresher and more luxuriant growth, better and freer flowering plants, with the chances of insect life and disease greatly reduced. For there is no doubt that continued forcing is the cause of much failure. It is also wise to examine even new cuttings and cleanse them. There are many plants with which this renewing system cannot be practised, such as crotons, palms and others, which require years to bring into perfection or beauty, but these should undergo a thorough cleansing process before you commence your winter fire heat. My remarks may appear trifling and, perhaps, troublesome to many, but the reward is a pleasure when you have your stock in fine, healthy condition. How often do we see plants eaten up by insects and in a puny, sickly-looking state, for, no matter how healthy the root may be, if the leaves and stems are covered with insects you must not expect good results. My houses were not only free from green-fly, but also from other troublesome insects, such as mealy-bug and red spider, the three great enemies with which I have had to contend. Red spider will never be troublesome where a proper moisture, conducive to the health of plants, is kept.—N. Robertson, in *Floral Cabinet*.

Catalpa Grove Nursery.

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MILLIKEN'S GREENHOUSE, EMPORIA, KAS.
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The Poultry Yard.

Eggs by Weight.

A great deal has been said and written about selling eggs by weight, says the *Poultry Yard*, but we are no nearer a solution, and the subject passes on to a distant future. In the early settlement of a country the agricultural productions are usually generous, but being difficult to transport to distant markets, are, consequently of little value. Hence, no great accuracy is required in the barter trades or exchanges for the necessaries of life.

With increased population, diversified occupations, and improved facilities for transportation to commanding markets, the products of the farm are increased in value, and greater exactness in business transactions is the result. Selling poultry by the pair, or the dozen, is too indefinite a method, and the better way is to calculate by pounds and ounces.

But this reform should also extend to eggs, and the farmer who offers for sale eggs which, if weighed, would be found to require three dozen to equal two dozen of his neighbor's (who keeps a larger breed of hens) yet, sold as they are, by the dozen, receives one-third more money for the same weight than the other farmer; the injustice of this custom is self-apparent.

It is one of those ruts in regular business routine which it is hard to get out of. Suppose the change should be made, there are many who would have a hand in it. The dealer is anxious to secure a bargain which shall satisfy his customers, consequently he is pleased to handle large eggs at dozen rates; but the small egg must be used also, and if the price is fixed per dozen by the large eggs, the small eggs are the gainers. Then, if the price is fixed per pound, the buyer gets more eggs in number, if buying small eggs, and some producers and dealers fear a revolution in favor of small eggs. It is said that it would occasion some trouble to arrive at the precise weight, or, in other words, to weigh exactly one pound of eggs; but that would regulate itself. The market man does not cut anything off from a porterhouse steak to make it weigh a given number of pounds, nor does he try to make a chicken weigh exactly what the customer requires. It is also argued that eggs could still be sold by the dozen at a price regulated by weight. If eggs were 21 cents a pound, and nine eggs weighed one pound, one dozen of the same eggs would be worth 28 cents. The buyer will pay his money and take his choice, it is 28 cents, or it is 21 cents per dozen, or it is 21 cents per pound. This is perfectly clear and fair to all. The producer obtains more per dozen for his large eggs, which have no doubt cost more, as eggs cannot be made without food, which the hens thus utilize; while the producer of small eggs is able to sell more eggs for the same amount of money and at an equal profit. If it is a satisfaction to the producer of large eggs to serve his customers with an article of very superior quality, it is equally satisfactory to the producer of small eggs to be able to give a greater quantity for the same value.

One day when I was in the "fancy" poultry business a man came to my yards and said: "I want to get some Light Brahmas to lay eggs for table use, but I can't afford to pay fancy prices. Haven't you some that you do not think good enough for breeding stock, that you can sell at market prices?" I had a lot of such pullets, and like a fool I let him have a dozen. Next spring that man sold eggs at \$1 per sitting, and he took pains to tell

everybody that his stock was just as good as mine, for he bought his pullets from my yards. He sold nearly \$40 worth of eggs before we stopped his game by telling the public that we never sold him anything but culls. Of course he could afford to sell eggs at \$1 per sitting. "The woods are full" of such breeders.—*Prairie Farmer*.

Poultry Notes.

The dust bath is to the fowl what the washbowl is to the individual. With the dust bath the hen cleans her body. She uses it also for exercise. When a hen is incubating she comes off as regularly to dust herself as she does to feed, instinct teaching her that it is the best of methods for ridding herself of lice.

The value of hen manure from a single bird for one year has been quoted at 15 cents. This is, we think, a very low estimate, and yet, even at this rate, the total of the manure from all the poultry in the country in 1880 would be \$19,000,000. The total value of the fertilizers manufactured during the same year was \$23,650,795.

Ducklings should not be allowed water beyond that furnished by a fountain from which they may drink, but not swim in. Young ducklings will stay in the water till cold and cramped, when the death rate will be great. Ducklings kept out of water till grown have fully 15 per cent. lower death rate than those which are permitted a full supply of water.

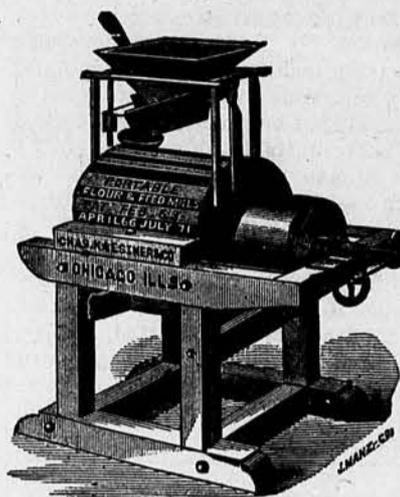
The old hens which are not intended for next year's breeding may also begin fattening, so as to be ready for an early market. They ought to be in prime condition for killing by September or October. They can be marketed then at any time and the breeder can early begin to realize on them. They may all be sold off before the stock of culls are ready for market.

There are a few farmers who raise fall colts, and a few poultrymen who raise fall chickens, but there are but few. The best chicks, as a rule, are those that are early-hatched. June chicks do very well, July chicks are sometimes to be tolerated, but August is too late, and September is not to be thought of, unless the poultryman has especial accommodations for rearing them. As few have suitable accommodations, the number who hatch out late chicks will be limited.

Under a forcing system of treatment the best hens in the world will quickly play out. You may get a larger number of eggs within a given time, but the later layings will not give you average good chickens, when you come to hatch such product. This result we have proved, beyond peradventure, in our past experience. Therefore, never force to any considerable extent your stock to lay an excessive or unnatural number of eggs, as it is exhausting, and will impair the vigor of the progeny.

As to chinch bugs, Prof. S. A. Forbes, Illinois State Entomologist, says that if a large brood of healthy bugs goes into winter quarters, they may be destroyed, late in autumn or early next spring by concerted measures taken by whole neighborhoods or communities; but individual action by here and there a farmer will have no appreciable effect. As the chinch bugs secure themselves against winter weather, by collecting under rubbish in the fields, and especially along the headlands, under hedges, in the woods, etc., they can here be destroyed in immense numbers, by a general raking, cleaning up and burning of rubbish of all sorts in such situations. They may even be induced to take up their winter quarters in places more convenient for their destruction,

by spreading straw, cornstalks, or other rubbish in fields infested by them. When they have ceased their work in fall, they will collect in this and may be destroyed by firing. You will see at a glance, however, that it is necessary that neighbors should unite in this enterprise; otherwise, those who destroy the bugs on their own farms will be sure to be attacked next spring, by those allowed to escape on the farms of their neighbors, as the bugs fly everywhere in spring before laying their eggs.



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The cut we give shows the Kaestner patent mill with best quality French burrs, dressed, balanced and ready for operation. The difficulty in grinding with French burrs heretofore was in adjustment. This difficulty seems entirely overcome in this mill, and its durability, perfect grinding and fast work is fully guaranteed, as well as ease and surety of operation. There is no setting or adjusting necessary. As soon as the shafts are dropped into their bearing the burrs are ready for operation, and the bed or stationary stone, being perfectly balanced and self-adjusting, always remains in perfect face with the runners. The manufacturers, Chas. Kaestner & Co., may be addressed at 303-311 South Canal St. Chicago, Ill.

The great object in protecting strawberries or other plants during winter is not to prevent freezing, but rather to prevent thawing during the warm days that often occur in February and March. Although protection may be so applied that the plants will not freeze at all, there is great danger of smothering, as the activity of the plant will be kept up to a certain extent, and access of air prevented by the covering. The depth of mulching advisable varies of course with the latitude and substance used, but three or four inches will usually suffice.

That Tired Feeling

The warm weather has a debilitating effect, especially upon those who are within doors most of the time. The peculiar, yet common, complaint known as "that tired feeling," is the result. This feeling can be entirely overcome by taking Hood's Sarsaparilla, which gives new life and strength to all the functions of the body.

"I could not sleep; had no appetite. I took Hood's Sarsaparilla and soon began to sleep soundly; could get up without that tired and languid feeling; and my appetite improved." R. A. SANFORD, Kent, Ohio.

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

Nervousness!

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

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Strengthening the nerves and restoring vital power this discovery has never been equaled. Ladies and gentlemen will find TURNER'S TREATMENT pleasant to take, sure and permanent in its action. Each package contains over one month's treatment. The Treatment, with some late discoveries and additions, has been used for over thirty years by Dr. Turner in St. Louis, in private and hospital practice. Price Turner's Treatment, per package, \$1; three packages \$2, sent prepaid on receipt of price. Thousands of cases of diseases mentioned above have been cured with one package, and knowing as we do its wonderful curative effects, the Treatment having been used in private practice for over thirty years in St. Louis, we will give the following written guarantee: With each order for three boxes, accompanied by \$2, we will send our written guarantee to refund the money if the Treatment does not effect a cure. Send money by postal note or at our risk. Address E. L. Blake & Co., Sixth and Market Streets, St. Louis, Mo.

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

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

The Busy Bee.

Apiculture a Suitable Avocation for Woman.

All persons are not born bee-keepers, or even made bee-keepers by years of experience, and it would be but folly to expect that all would be successful in that branch of industry. And, indeed, there is often more profit in bee-keeping as a recreation than in all the money returns that are realized, although there is sometimes a consideration in that respect.

When the weary rounds of business have become so monotonous that the heart at times sickens at it all, it is then a real relief to turn away from all these things and watch that "band of united workers who never strike" nor complain, moving so systematically along in their ceaseless toil. There is a practical lesson to be learned in watching these uncomplaining little workers. We who so often grow weary of our toil; who so often complain that our labor brings in no returns, can learn some valuable hints from the busy bee that expects no returns save a bare subsistence.

For the overworked, and those whose occupation consists of one changeless round of drudgery, we can not too earnestly recommend this employment. It has been argued by some, that woman is not physically fitted for this business; and by others, that it is unladylike. To such weakness as would prompt the latter thought we have no reply—nothing but a contemptuous pity! That woman is not strong enough for the more laborious part of bee-keeping as well as for many other things which come within the routine of domestic life, is only too true; but is there not for women, and especially on the farm, other back-breaking weights that have far less sweetness in them than honey boxes? Most farmers' wives have no Irish or Negro help to lift their wash-tubs, churn the butter, or do the various other hard jobs that are daily to be encountered.

It has been estimated that a large per cent. of the insane entombed in the asylums are farmers' wives. Why is this? Simply because there is too much sameness—too little recreation in their lives of toil. Their work brings no remuneration; and woman, as well as man, is only human, and would like some little individual income or possession; and so, sooner or later, the oft-recurring duties become tasks, and life is, at length, reduced to the sphere of slavery.

This recreation among the bees is not at all needed where women are musicians, and can while away an hour or so each day on the latest sheets of music at the piano; or where she is educated to sketch, or paint on silk or velvet—painting the bee or butterfly on some household ornament; but really half the women on farms would feel guilty of some misdemeanor if seen at such employment—so thoroughly have they been taught to know nothing but real work!

Then, for mercy's sake, do not try to set up a "scarecrow" over bee-keeping, silk culture, or any other occupation that will be at all remunerative, and tend to lead the mind away from these unchanging household duties—duties that are all right and proper that every woman should perform, but nevertheless need to be at intervals sweetened by change. There is nothing dishonorable in any honest employment. It will do to tolerate such sentiments under a monarchical form of government, where an idiot may be born an aristocrat; but we have only self-made aristocracy, and the canal boy or rail-maker can reach the highest seat under our govern-

ment, as well as the great. But we would advocate opening up all avenues to woman as well as to man; that is, all that are retired, and not calculated to degrade her, which, if she has a love for it, we feel that bee-keeping could never do. Unless there is a real fancy for this business it is a mistaken calling; for bee-keeping, like everything else, must be entered into with the whole heart to prove a success. But from practical experience, and not from theory, we can say that the sixty colonies which claim our daily individual attention are a real recreation. It leads the mind away from the humdrum cares of life into the study of nature, where its broad fields are spread out before us, rising to the sublimity of its heights as far as the weak human intellect can go, as we watch the all-unconscious bee go forth in its ceaseless toil.

If all laborious work is to be taken away from woman because it is unladylike, let it then commence where the general health is more affected, and the mind least diverted; that the sphere of domestic life in general may be more bright and cheerful.—A Woman, in Gleanings.

THE MARKETS.

By Telegraph, September 13, 1886.
LIVE STOCK MARKETS.

St. Louis.

CATTLE—Receipts 1,480, shipments 600. Market active and stronger. Good to choice shipping 4 30a4 85, common to fair 3 6a4 20, butchers steers 3 50a4 00.

HOGS—Receipts 1,800, shipments 400. Market active and 5c higher. Butchers and best heavy 4 90a5 20, mixed packing 4 50a4 85, light 4 00a4 70.

SHEEP—Receipts 1,400, shipments 500. Market steady at 2 25a4 00.

Chicago.

The D-overs' Journal reports:
CATTLE—Receipts 9,000, shipments 1,800. Market was generally about steady and fairly active. Shipping, 3 40a5 50; stockers and feeders, 2 00a 3 50; through Texas cattle—cows 2 00a2 50, steers 2 60a3 10; Western rangers weak and unchanged.

HOGS—Receipts 15,500, shipments 3,000. Market was active at 5c advance. Rough and mixed 4 15 a4 90, packing and shipping 4 60a5 20, light 4 00a 5 00.

SHEEP—Receipts 3,700, shipments 1,400. Market active and unchanged. Natives 1 50a4 00, Western 2 75a3 50, Texans 1 75a2 70, lambs 3 50a 4 75.

Kansas City.

CATTLE—Receipts 2,573, shipments 1,681. Fat weak and 5a10c lower; butcher's stuff stronger and a shade higher; stockers and feeders steady. Good to choice 4 00a4 50, common to medium 3 30 a3 90, stockers 2 25a2 75, feeders 2 80a3 30, grass range steers 2 25a3 5.

HOGS—Receipts 2,850, shipments 688. Market steady. Good to choice 4 80a5 00, common to medium 4 20a4 75.

SHEEP—Market quiet. Good to choice 2 50a 3 00, common to medium 1 50a2 25.

PRODUCE MARKETS.

St. Louis.

WHEAT—No. 2 red, cash, 76 $\frac{1}{2}$ c; October, 77 $\frac{1}{2}$ a 77 $\frac{3}{4}$ c.

CORN—No. 2 mixed, cash, 35a36 $\frac{3}{4}$ c; September, 37 $\frac{1}{2}$ c bid.

OATS—No. 2 mixed, cash, 25 $\frac{1}{2}$ c.

RYE—Firm at 50c.

BARLEY—Neglected.

Chicago.

WHEAT—Market quiet, but closed strong. September, 75 $\frac{3}{4}$ a76c; October, 76 $\frac{3}{4}$ a77 $\frac{1}{2}$ c; No. 2 red, 76 $\frac{3}{4}$ c.

CORN—A shade stronger. Cash, 39 $\frac{3}{4}$ c; September, 39 $\frac{3}{4}$ a39 $\frac{3}{4}$ c.

OATS—Cash, 25a25 $\frac{1}{2}$ c; September, 25c.

RYE—Quiet. No. 2, 48 $\frac{1}{2}$ c.

BARLEY—Quiet. No. 2, 57 $\frac{1}{2}$ c.

FLAX SEED—Steady. No. 1, 1 08 $\frac{1}{4}$

Kansas City.

WHEAT—Receipts at regular elevators since last report, 21,640 bushels; withdrawals, 19,144 bushels; leaving stock in store as reported to the Board of Trade to-day, 453,511 bushels.

The market on 'change was steady but quiet to day. No. 2 red cash was nominal. No. 3 red was nominal except for October, which sold at 67 $\frac{1}{2}$ c.

CORN—Receipts at regular elevators since last report 376 bushels, and withdrawals 10,515 bushels, leaving stock in store as reported to the Board of Trade to-day 255,255 bushels.

The market was steady on 'change to-day. No. 2 cash and September were nominal; October sold at 33a33 $\frac{1}{2}$ c.

OATS—No. 2 cash, 24 $\frac{1}{2}$ c bid, 25 $\frac{1}{2}$ c asked. Sep-

tember, 1 car, 24 $\frac{1}{2}$ c asked. October, 24 $\frac{1}{2}$ c bid, 25 $\frac{1}{2}$ c asked.

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

HAY—Receipts 11 cars. Market firm. Fancy, small baled, 7 50; large baled, 7 00; wire bound 50c less.

OIL-CAKE— $\frac{3}{4}$ 100 lbs., sacked, 1 25; $\frac{3}{4}$ ton, 22 60, free on board cars. Car lots, 21 00 per ton.

FLAXSEED—We quote at 94c per bus. upon the basis of pure.

CASTOR BEANS—Quoted at 1 50 per bus.

BUTTER—Supply light and market active. We quote: Creamery, fancy, 20c; good, 17a18c; fine dairy in single package lots, 18a14c; store packed do., 10c; common, 6c.

EGGS—Receipts light, demand good, and mar-

ket active at 12c per dozen for candled. Sales cannot be made without candling.

CHEESE—Full cream 10c, part skim flats 7a8c, Young America 10 $\frac{1}{2}$ c, Kansas 5a7c.

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

PROVISIONS—We quote: Round lots—Sugar cured hams, 12 $\frac{1}{2}$ c per pound; breakfast bacon, 9c per pound; dried beef 12c; dry salt clear rib sides, 7 15; long clear, 6 65; shoulders, 6 25; short clear, 7 75; smoked clear rib sides, 7 80; long clear, 7 80; shoulders, 7 00; short clear, 8 65.

600 Merino Sheep for Sale.

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

J. E. BONEBRAKE, Pres't.
THEO. MOSHER, Treasurer.

O. L. THISLER, Vice Pres't.
M. P. ABBOTT, Secretary.

Kansas Farmers' Fire Insurance Company,

OF KANSAS,

Insures Farm Property, Live Stock and Detached Dwellings

Against Fire, Tornadoes, Cyclones and Wind Storms.

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

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

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

J. H. PRESCOTT, Pres't.
ED. C. GAY, Secretary.

C. E. FAULKNER, Vice Pres't.
M. D. TEAGUE, Treasurer.

The National Mutual Fire Insurance Co.,

OF KANSAS,

MAKES A SPECIALTY OF INSURING FARM BUILDINGS AND STOCK

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

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

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

W. H. BARNES, Pres't.
J. H. MITCHELL, Secretary.

M. C. REVILLE, Vice Pres't.
C. C. WOODS, Treasurer.

GEN. J. C. CALDWELL, Manager.

The Kansas Live Stock Insurance Company,

OF TOPEKA, KANSAS,

Insures Live Stock Against Death BY DISEASE OR ACCIDENT.

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

CHICAGO.

KANSAS CITY.

ST. LOUIS.

James H. Campbell & Co.,
LIVE STOCK COMMISSION MERCHANTS,
Rooms 23 and 24, Exchange Building, Kansas City Stock Yards,

SUCCESSORS TO—

ANDY J. SNIDER & CO., and CAMPBELL, LANCASTER & CO.,
of CHICAGO, KANSAS CITY, ST. LOUIS.

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

Farm and Stock Cyclopedia,

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

Is a condensation into practical and useful form of all that is of interest and value to all classes of agriculturists, ranchmen and breeders, in all sections. It is the ripe product of twelve of the most eminent writers and practical workers in the land. It treats over 1,000 important topics comprised in one elegant imperial octavo volume of 1,234 pages. It contains 40 separate departments, each complete in itself and alone worth the price of the entire book. It is embellished with 400 elegant and practical engravings, and at its remarkably low price (\$4.50) is within the reach of every one. No man who tills an acre of ground or owns a head of stock can afford to do without this admirable work. Sent to any address postpaid, on receipt of price. Address, with remittance.

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

NURSERY STOCK

—AT THE—

South St. Louis Nurseries

We offer for the coming trade season the largest and most complete assortment of Nursery stock GROWN IN THE WEST; embracing Fruit Trees of every description, Ornamental Trees, Roses, Shrubs, etc.
We make the growing of Standard and Dwarf Pear a specialty, and invite inspection from Nurserymen and Dealers. Wholesale price list on application.
Consult your interest by getting our prices before buying. Inducements and good accommodation for agents and dealers.
S. M. BAYLES, Proprietor, St. Louis, Mo.

THE STRAY LIST.

HOW TO POST A STRAY.

THE FEES, FINES AND PENALTIES FOR NOT POSTING.

BY AN ACT of the Legislature, approved February 27, 1866, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisement, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker-up, to the KANSAS FARMER together with the sum of fifty cents for each animal contained in said notice.

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

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

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

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

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

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

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

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

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

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

If the owner of a stray fails to prove ownership within twelve months after the time of taking, a complete title shall vest in the taker-up.

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

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

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

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

Strays for week ending Sept. 1, '86.

Harper county--E. S. Rice, clerk.
HORSE--Taken up by G. E. Sanders, of Blaine, August 26, 1886, one black horse, indistinct brands.

Riley county--O. C. Barner, clerk.
PONY--Taken up by Chas. Ericson, of Fancy Creek tp., one dark bay horse pony, white strip in face, left hind foot white, branded S on left shoulder.

Butler county--James Fisher, clerk.
MULE--Taken up by Nicholas Strubber, of Clifford tp., July 27, 1886, one dark brown mare mule, supposed to be 12 or 15 years old, about 15 1/2 hands high, marked with two white specks near the root of tail and several white specks on hind-quarters, white spot on top of neck where the collar works, and two white spots on each side of the head close to ears; valued at \$15.

Saline county--Joseph Sargent, clerk.
PONY--Taken up by August Zeibse, of Walnut tp., August 2, 1886, one sorrel mare pony, about 3 years old, white strip in forehead and white on right hind leg, branded O on left side and 2 on left rump, left eye white or glass; valued at \$10.

Strays for week ending Sept. 8, '86

Douglas county--M. D. Greenlee, Dep. clerk.
PONY--Taken up by Albert Stehwein, of Lawrence, in Wakarusa tp., July 17, 1886, one brown mare pony, 14 hands high, saddle marks; valued at \$60.

Jefferson county--E. L. Worswick, clerk.
PONY--Taken up by E. Fowler, of Union tp., (P. O. McLouth) August 2, 1886, one dark bay Texas pony, branded C. P. on left hip and C on left jaw; valued at \$35.

Riley county--O. C. Barner, clerk.
COW--Taken up by David Demar, of Center tp., April 3, 1886, one red cow, 3 years old.

Strays for week ending Sept. 15, '86.

Osage county--R. H. McClair, clerk.
HORSE--Taken up by S. B. Laughlin, near Lyndon, in Valley Brook tp., August 21, 1886, one sorrel horse, 16 hands high, about 12 years old; valued at \$35.

Wabaunsee county--G. W. French, clerk.
COLT--Taken up by E. T. Frows, of Wabaunsee tp., August 28, 1886, one 2-year-old sorrel horse colt, two white hind feet, scar on left fore leg between fetlock and knee, small white spot in forehead; valued at \$50.

Russell county--J. B. Himes, clerk.
PONY--Taken up by Van Martin, of Big Creek tp., July 2, 1886, one bay mare pony, branded with heart-shaped brand; valued at \$50.

Rush county--L. K. Hain, clerk.
COW--Taken up by Robert Nickol, of Hampton tp., (Hampton P. O.) August 19, 1886, one dark red cow, 4 years old, branded E. M. O. (or O) on left side and C on left loin; valued at \$16.

Strayed--\$10 Reward!

About May 15th, 1886 one dark bay horse, 6 years old, 14 1/2 hands high, 950 pounds, thin-bull; rupture lump below the ribs, supposed to be on right side. A reward of \$10 will be given for information leading to its recovery. ALEX. MILLER, Scranton, Osage Co., Kas.

STRAYED.

From my farm in Walnut township, Barton county, Kansas, one gray Mare Mule; branded on left side of neck D; right hind leg is thick and sore. Also one dark bay Mare Pony, about 9 or 10 years old, about 13 hands high, two hind feet and left front foot white, white spot on forehead. Mule and pony have leather halters on; mule has rope on and pony has a strap. Also one dark bay Mare Colt, about four months old; white spot on forehead.

Send information to FERDINAND SCHENCK, Olinitz P. O., Barton Co., Kas.



TOPEKA Medical and Surgical INSTITUTE

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

PATIENTS TREATED AT HOME.

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

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

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McCUNE, KANSAS,



Breeders of and Dealers in Imported and Home-bred

CLYDESDALE AND NORMAN HORSES.

CHOICE STALLIONS for sale at very low prices and on easy terms.

Write for what you want. Satisfaction guaranteed.

JOHNSON BROS.

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French Draft Horses.

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

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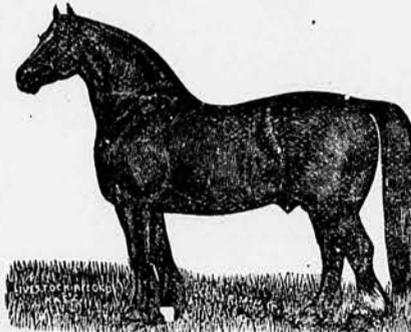


FRENCH DRAFT & CLYDESDALE HORSES.

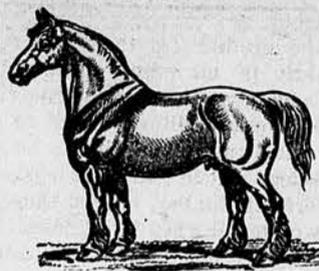
Dealer and Breeder in Imported and High-Grade FRENCH DRAFT & CLYDESDALE HORSES. Terms reasonable. Satisfaction guaranteed. Correspondence solicited.

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TOPEKA, . KANSAS,



Importers and breeders of PERCHERON, CLYDESDALE and CLEVELAND BAY HORSES. 108 head will arrive from Europe, July 28th. Horses sold on terms to suit purchasers. Write for illustrated Catalogue.



SEXTON & OFFORD,

—IMPORTERS OF—

English Shire (Draft) Horses

AND RED POOLED CATTLE.

We have a very choice lot of Horses on hand, from 2 to 7 years old. Our last importation was nine Stallions, including a very active Suffolk Punch; also four Mares. These were selected by Mr. G. M. Sexton, Auctioneer to the English Shire Horse Society. He handles only the very best. Owing to our great facilities for buying, we can afford to sell the very best at the lowest prices. An inspection solicited. Write for Catalogue.

SEXTON & OFFORD, 34 East Fifth Street, Topeka, Kansas.

First - Prize Hereford Herd

AT THE GREAT ST. LOUIS FAIR, 1885.



Herd comprises 300 head of choice Herefords, headed by the following first-prize and sweepstakes Bulls:

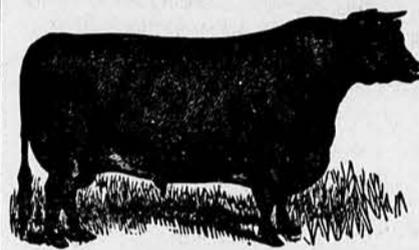
The celebrated FORTUNE 2080. SIR EVELYN 9650, an illustrious son of Lord Wilton.

GROVE 4TH 13783, by the noted Grove 3d. DEWESBURY 2d, by the famous Dollie.

Grades Bought and Sold.

Correspondence solicited. Cattle on exhibition at stables, 1616 Bell street, Kansas City, Mo. Address J. S. HAWES, COLONY, KAS.

OAKLAND STOCK FARM.



W. S. WHITE, Sabetha, Kansas,

Breeder of High-class Short-horns, will sell some choice Females in car lots or singly, to suit purchasers. Also a few good Bulls. Prices low. Write or come.

HOLSTEIN PARK.



W. A. TRAVIS, HOLSTEIN BREEDER, TOPEKA, KANS.

WM. A. & A. F. TRAVIS, BREEDERS OF

Holstein - Friesian Cattle.

Inter-Ocean Stables, North Topeka.

Choice, Highly-Bred HEREFORD BULLS and HEIFERS,

For sale reasonable. Come or write for Private Catalogue.

HEIFERS IN CALF to BEAU REAL AND BEAU MONDE.

SHOCKEY & GIBB, Lawrence, Kansas.

TIMBER LINE HERD

HOLSTEIN CATTLE

POLAND-CHINA HOGS.

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

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

W. J. ESTES & SONS, Andover, Kansas.

PROF. R. BIGGS, V. S., and Horse Educator,

performs all surgical Operations on HORSES and CATTLE.

Castrating, Ridgling Horses and Spaying Heifers a specialty. Success Guaranteed.

He performs the operation on Ridglings by a new method, using no clamps, and takes the testicle out through its natural channel without the use of a knife except to open the scrotum. The horse can be worked every day. The success which has attended Prof. Riggs, in the performance of this operation has pronounced him one of the most skillful and successful operators in the country. Address PROF. R. BIGGS, V. S., Wichita, Kas.

References:—Dr. A. Stanley, V. S., Newton, Kas.; Chas. Westbrook, owner of "Joe Young," Peabody, Kas.; Dr. C. Weale, V. S., Salina, Kas.; Dr. Young, V. S., Abilene, Kas.; Dr. Votaw, V. S., Douglas, Kas.; Chas. Wolf, Topeka; J. J. Welch, V. S., St. Marys, Kas.; D. W. Woodford, McPherson, Kas., and hundreds of others, from every part of the State. (Mention this paper.)

STEWART'S HEALING POWDER,

CURES ALL OPEN SORES, CUTS FROM BARBED WIRE FENCE, SCRATCHES, KICKS, CUTS, &c.

Sold Everywhere, 15 & 50 cts. a box. Try it.

STEWART HEALING POWDER CO., ST. LOUIS.

GREAT BLUE RIBBON COUNTY OF EASTERN KANSAS. Jefferson county don't owe a dollar. Price List of Farms, etc., free. Address Metzger & Insley, Ukalooza, Kas. Cut this out.

CLOSING-OUT SALE

Of the Alvanna Ranch Herd of

360 HEAD OF CATTLE!

ON THURSDAY, SEPTEMBER 30, 1886.

To close out the interest of the estate in the Alvanna Ranch Herd of Cattle, we will offer at Public Sale, to the highest bidder, at the Ranch, one and a quarter miles west of

SKIDDY, MORRIS CO., KAS.,

On the 30th day of September, 1886, and until all are sold, 360 HEAD OF CATTLE, consisting of Grade Short-horn and Grade Hereford Cows, Heifers, and Steers, and the two Thoroughbred Hereford Bulls, Garfield No. 9134, American Hereford Bull Book, and Bonny Lad 6th No. 9560, American Hereford Bull Book; also 2 two-year-old Grade Hereford Bulls, 6 Grade Hereford Bulls 3 months old, and 1 two-year-old solid red Grade Short-horn Bull. The Grade Hereford Cows and Heifers are the get of Defiance No. 1235, and Garfield and Bonny Lad 6th above mentioned.

This season we have used Garfield, Bonny Lad 6th and Starlight No. 9073, A. H. H. B., in the herd, and feel sure all females of proper age are in calf. Will also sell one pair of Work Mules, Harness and Wagon, and five Work Horses. In offering these cattle we give to the farmer a rare chance to improve his herd. Purchasers may leave cattle until frost, if they desire.

TERMS:—All sums of \$20 and under, cash; over \$20, one year's time will be given with negotiable note bearing interest at 8 per cent., or 5 per cent. off for cash.

J. G. D. CAMPBELL, } Auctioneers. JAMES BUCKINGHAM, } Executor Estate of Alva Buckingham, Dec'd, S. A. SAWYER, } J. M. SULLIVANT, Agent.

The Veterinarian.

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

PROBABLY AN ABSCESS.—My colt, only one year old, has a hard, hot swelling on its neck, near the shoulder. It is as large as an ordinary wash-basin. All that I have done seems to have no good effect. It is getting somewhat tender to the touch. [The increased heat, tenderness and diffused swelling looks as if an abscess was about to form, if, indeed, one has not already formed. When it becomes evident that nothing can be done to prevent suppuration from taking place, which in the treatment of some cases is desirable, everything should be done to hasten suppuration. Heat and moisture diligently applied will accomplish the end better than anything else we can suggest. When it becomes evident that pus has formed, no time should be lost in evacuating it by a free incision.]

FARCY.—About four months ago I noticed a sore on the inside of my horse's right hind leg, close to the hock joint; four weeks ago two lumps came on the same leg, close to the body. Now the inside of his leg, from his hock clear up, is covered with lumps. Some have broken and discharge a thick, yellow matter. Please state what the trouble is, and a remedy. [Judging from the symptoms as stated in the above letter we have no doubt the patient is affected with the farcy: If our diagnosis of the case proves to be correct the most prudent course for the owner is to have the patient destroyed forthwith. If, however, there is any doubt in the mind of the owner as to the real nature of the malady, he should consult some reliable veterinarian near by, who can have an opportunity to make a personal examination of the subject.]

LAMPAS.—We have heretofore stated that burning of the bars of the mouth for lampas should never be allowed. The disease is a simple inflammation of the bars of the mouth, and may be brought on by a variety of causes; cutting of the teeth and indigestion are the principal causes. If it arises from the teeth, cutting the gums to allow egress would be indicated. If from indigestion, give 12 ounces of Epsom salts—one-half the quantity for a yearling—to be followed by a tonic. The following would be indicated: Eight ounces each of hyposulphite of soda and powdered Peruvian bark; 2 ounces each of ground ginger and powdered sulphate of iron. Mix. Give one level tablespoonful for a colt and a heaping one for a horse, once a day in bran mash. For the swollen bars: To a teaspoonful of honey or molasses, add what finely-powdered chlorate of potash will lie on a dime; mix, and rub the bars with it. If the bars are very much inflamed, a little blood taken therefrom will be indicated.]

RHEUMATISM OR POISONING BY PLANTS.—I wish to consult your veterinarian in regard to a yearling colt I have. I had the colt in my neighbor's pasture, and he says on several occasions he found him down, unable to rise. The colt is in good condition, has a good appetite, and is apparently in good health, except its legs, or rather its joints. When helped up it will walk about and sometimes run, and no one would suppose anything to be the matter; but should he chance to stumble he will fall down and will be unable to arise again. He will struggle around and will try to regain his feet, often rolling over on his back from side to side, but is never able to lift his body

from the ground; at this time he is apparently in no pain, often eating grass as he lays; his legs are free from any blemishes, swellings or puff of any kind; when rubbing his joints he will raise his legs as if in pain; his legs seem to be perfectly limber, except they are slightly cramped when lying down. He has always been perfectly healthy, never been anything the matter since owning him; has not been castrated yet. [Your colt is either affected with rheumatism, or with a form of temporary paralysis, occasioned by eating certain plants which grow in wet pastures. Change to a dry situation, where plenty of pure drinking water can be had. This is sometimes of itself sufficient to arrest the condition, but if rheumatism is suspected, along with taking the above precaution the colt should be kept indoors during the changeable weather, and should the trouble localize itself in any particular joint apply a strong stimulating liniment and wrap the part in flannel bandages.]

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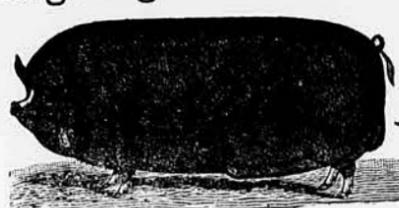
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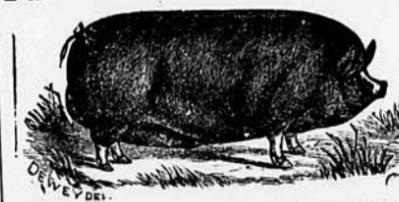
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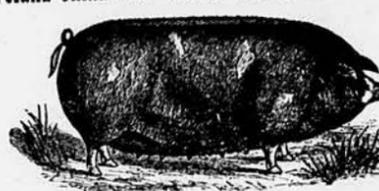
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Per y D 5851 and White Ear 8117 at head of herd. Among the sows are Milla 6666 (C. R.), sired by Streeter's Cor 619; Fancy Gem 1248, sired by Gem's U. S. 240; 137—sired by B. F. Dorey & Sons, sired by Lou King 1993; six sows sired by Hook's U. S. 349. Come and see our stock; if not as represented we will pay your expenses. Special rates by express. J. A. DAVIS, SON, Richmond, Franklin Co., Kas.

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TESTIMONIALS:
 OFFICE OF KANSAS STATE AGRICULTURAL COLLEGE, MANHATTAN, KAS., June 21, 1886.
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 This is to certify that we have for some time had one of the "Boies' Stock Watering Troughs," of which Messrs. Goodwin & Bishop, of Delphos, Kas., are the agents, and that the workings of the Trough have been entirely satisfactory from the first. The Troughs and connections are simple and not likely soon to get out of repair, and the supply apparatus is strictly automatic, working freely in such a way as to keep the troughs constantly supplied. This Trough seems to be a useful addition to our list of farm appliances.
 Yours truly, **E. M. SHELTON.**

MESSESS. BISHOP & GOODWIN—Dear Sirs: The Trough you put up for me gives entire satisfaction, and I wish to say something of its good qualities. I have thoroughly tested its use. First, the saving of labor; second, I can put on more flesh with less feed than with open troughs; third, the use of this Trough, from sanitary considerations, cannot be overestimated, as it is well known that access to pure fresh water at all times conduces more to the general good health of domestic animals than all other causes combined.
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\$5,000 will buy an Improved Farm of 160 acres of first-class land in McPherson county, Kas. Terms easy. Address DeMotte, 273 Kansas avenue, Topeka.

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Then write to WM. J. ESTILL & CO., Medicine Lodge, Kas. They have for sale over one hundred tracts of Choice Land in Barber county, Kansas, suitable for farms or ranches. Payments cash, or terms to suit purchaser. Those desiring to locate in the best part of Kansas should write at once. Particulars free. City property—addition of 80 acres to Medicine Lodge—in lots 50x150 feet, at low cash prices.

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BARTELDES & PATCH Hay and Grain Commission Merchants. Consignments and Correspondence Solicited 403 Holliday St., Denver, Col.

Closing Out Sale!

Of the NORWOOD HERD OF JERSEYS at bottom prices. Fifteen head of young Cows and Heifers of the best milking families. Also two-year-old Alphas Reitor—the best bull I ever owned. For prices and particulars, address E. A. SMITH, Norwood Stock Farm, Lawrence, Kas.

7 Bulls 7 FOR SALE.

We offer the splendidly-bred Flat Creek Mary Bull YOUNG MARY DUKE for sale. Also six others—one Fibert, one Adelaide, two Galateas, one Rosamond, one Nannie Williams. YOUNG MARY DUKE has been used in our herd for two years; calved February, 1883; he is a red, and breeds; got by 6th Duke of Acklem, dam Barrington Bates 11th by 20th Duke of Airdrie 13,872, grand dam Red Belle 2d by Bell Sharon, etc. Come and see him and his calves. Prices low. Prices low. MILLER BROS., JUNCTION CITY, KAS.

ANNUAL EXPOSITION OF THE

Kansas Fair

ASSOCIATION, —AT— TOPEKA, KAS., Sept. 28, 29 & 30 and Oct. 1, 1886.

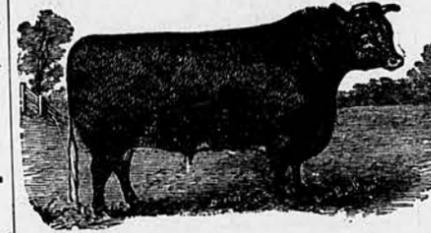
\$5,000 IN PREMIUMS! \$2,500 SPEED RING.

ADMISSION, Only 25 cents. FAMILY TICKETS, if bought before September 15th, only \$1.

The A. T. & S. F. U. P., Ft. Scott & Gulf, Southern Kansas, Missouri Pacific, B. & M., St. Louis, Ft. Scott & Wichita, St. Joseph & Grand Island railroads will sell round-trip tickets at one fare from all points.

For premium lists, etc., address JAMES A. TROUTMAN, Sec'y, TOPEKA, KANSAS.

GRAND PUBLIC SALE



SHORT-HORN CATTLE

Thursday, Sept. 23, 1886, AT THE FAIR GROUNDS.

PARSONS, KANSAS.

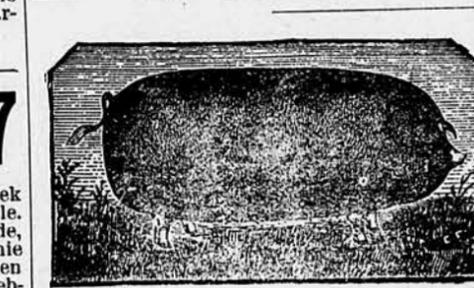
I will sell by Public Auction, at 12:30 p. m., ABOUT SIXTY HEAD OF SHORT-HORNS, representing some of the best blood to be had, especially of the Booth kind, and the purest to be had on this continent by auction. The families represented are Waterloo Rose of the Torr branch of the Waterloo family; Imp. Maiden, bred by J. B. Booth, Killberly, England; Imp. Pauline 20th, of pure Booth blood, together with descendants of Imp. Lady Whittington, Imp. Lady Elizabeth, Imp. Louisa, Imp. Diana, Imp. Sunbeam, Imp. Ruby, and other noted families.

These cattle are in grass condition, regular breeders and sound in all particulars. There never will be a time when a better chance will be afforded purchasers to obtain choice Booth and other famous breeding at their own bids. Catalogues may be had on application. Terms given in Catalogue and on day of sale. For further particulars, address

A. M. STRODE, CHETOPA, KANSAS.

COI. L. P. MUIR, Auctioneer, Independence, Mo.]

PUBLIC SALE!



Owing to ill health in my family, I have concluded to be absent for an indefinite period and having rented my farm will sell at Public Sale at my farm, seven miles northwest of

HIGHLAND, DONIPHAN CO., KANSAS,

And six miles northeast of Robinson, On Friday, October 15, 1886,

My entire herd, comprising about 100 POLAND-CHINAS!

All Thoroughbred and Recorded Stock, as follows: Sixty five Pigs, from two to four months old; 20 Brood Sows, one to two years old; 15 Males from six months to two years old. For description of a part of this herd, see Vols. 6 and 7 of American A. P. C. Record.

SHORT-HORN CATTLE. Also, at the same time and place, I will sell sixteen head of Recorded and High-bred and two bulls. Also the Thoroughbred SHORT-HORN FULL, ROYAL ARCH No. 53702 a straight-bred Young Mary Bull.

SIX FINE TWO-YEAR-OLD FILLIES—Half to three-fourths Norman and Clydesdale blood, FARM IMPLEMENTS such as Pows, Harrows, Hay Rake, Corn Plows, one Wagon, etc., too numerous to detail. SALE TO COMMENCE AT 10 O'CLOCK A. M.

TERMS OF SALE:—All sums under \$5 can be Over \$5, a credit of six months will be allowed, without interest if paid when due; if not so paid, 10 per cent per annum will be charged from date. Purchasers from a distance can have stock boxed and delivered at depot free.

J. F. GLICK,

ELI ZIMMERMAN, Auctioneer.

Proprietor Ash Grove Stock Farm.

FIRST ANNUAL SALE!



—OF— RECORDED POLAND-CHINA SWINE —AND— HIGH-GRADE HOLSTEIN CATTLE!

I will have a Public Sale of Recorded Poland China Swine and High-grade Holstein Cattle,

AT THE FAIR GROUNDS, HIAWATHA, BROWN CO., KANSAS,

Beginning at 10 o'clock a. m.,

Wednesday, October 20, 1886,

Consisting of thirty-five Male Pigs, from five to seven months old; five yearling Sows with litters from six to ten weeks old; twenty-five Gilts from five to seven months old; five two year-old Sows that raised litters in the spring. These Hogs are all of aged dams and sires, and are in perfect health. Seven Holstein Bull Calves, from two to six months old, some extra-finely marked.

One three-fourths Clydesdale Stallion, two years old, weighing 1,200 pounds. Parties coming from a distance can have stock transferred to depot free of charge. Positive sale; no by-bidding allowed.

TERMS:—A credit of six months will be given with 8 per cent. interest from date, if paid when due; if not so paid, interest at 10 per cent. Five per cent. discount on each and every dollar for cash.

ELI ZIMMERMAN,

N. B. MOORE, Auctioneer.]

Prop'r Poplar Grove Stock Farm, Three miles west and three-fourths mile south of Hiawatha, Kansas.

LITTLE :: JOKER :: BUTTONS

For Marking Stock. Never Come Off.

PRICE \$5.00 PER 100, NUMBERED. SEND FOR SAMPLE.

LEAVENWORTH NOVELTY WORKS, LEAVENWORTH, KANSAS.

TOWER'S SLICKER The Best Waterproof Coat. The FISH BRAND SLICKER is warranted waterproof, and will keep you dry in the hardest storm. The new POMMEL SLICKER is a perfect riding coat, and covers the entire saddle. Beware of imitations. None genuine without the "Fish Brand" trade-mark. Illustrated Catalogue free. A. J. Tower, Boston, Mass.