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The Chinch Bugs--How to Get Rid of Them.

Kansas Farmer:

The unparalleled loss inflicted upon the farming community by the chinch bugs the present year is the source of a great deal of anxiety to the farmers just now. It is true we have had and still have dry weather in many localities, but even in the dry districts sufficient rain has fallen, had the bugs been out of the way, to have made at least a half crop of every kind of grain sown or planted this season. For several weeks now the fresh brood of bugs has been flying, and instead of thoroughly cleaning up a field of corn as they go which they did while on the forced march, they now have settled all over the field, and while not killing it outright are drawing so heavily upon its vitality that even with rains it cannot recover sufficient strength to drive out the ear. The second and third planting of corn is now being destroyed in that way, and millet and sorghum also.

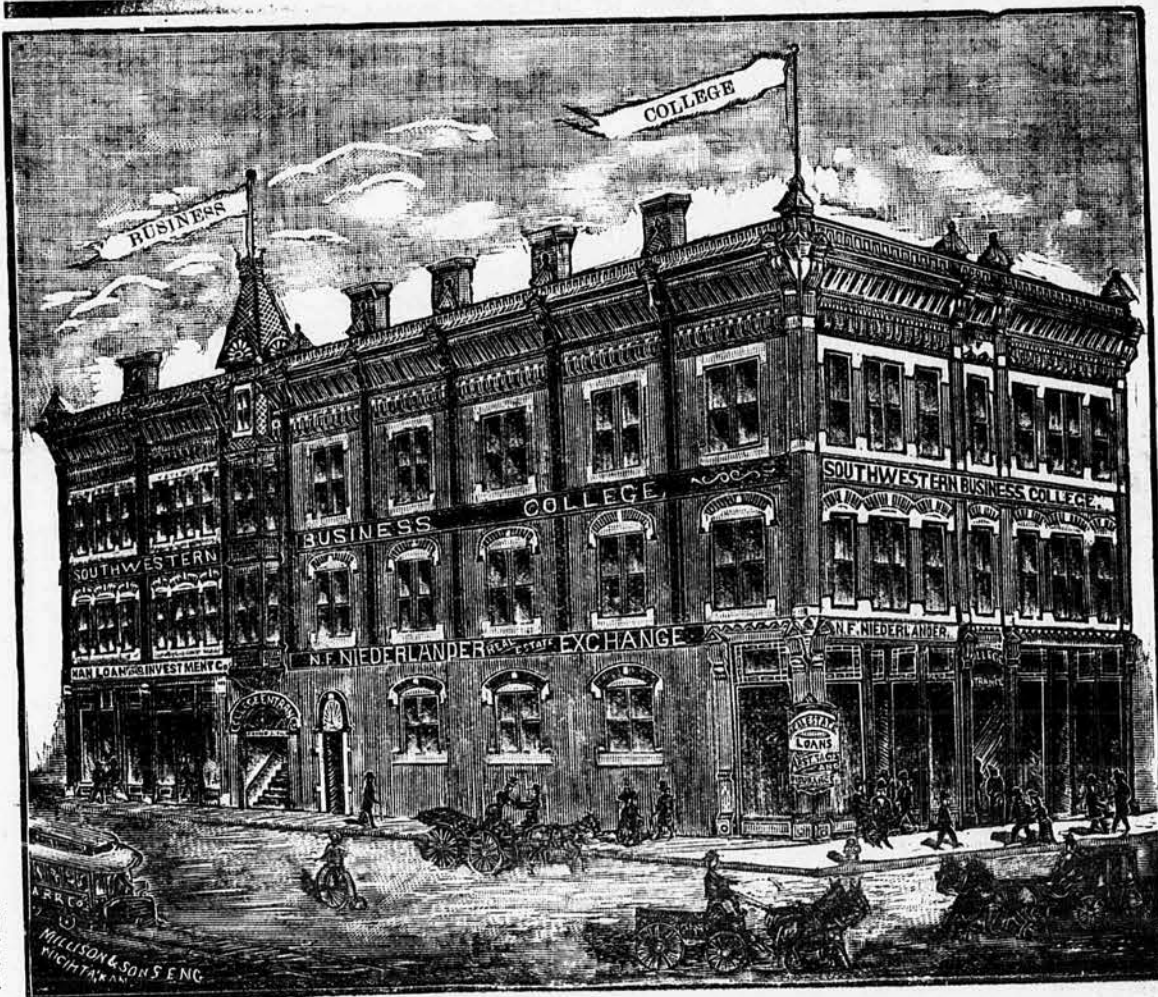
In justice, however, to our section, I am very glad to say that in the south part of Osborne county there has been an abundance of rain and the corn prospects have never been better. In the north part of the county, also, in some parts corn still promises well. But the fact remains that in the central portion of our county, embracing the Solomon valley, and by far the largest portion of the farming district of the county, our crops from first to last are a complete failure. And for this unfortunate condition of things we are indebted chiefly to the bugs. It is, therefore, by no means a matter of surprise that farmers generally are full of alarm and anxiety for the future, and are inquiring "What shall we do, what can we do to stop the ravages of these bugs?" Let us not get excited and curse the country and the bugs, but let us calmly reason together. If there is anything we can do we should do it. If, on the other hand, nothing can be done, let us in the spirit of the true philosopher, accept the situation and make the best of it, trusting in the meanwhile to the good Father above who frequently leads his people "Through rough things up to the Stars." *Ad astra per aspera* you remember, is our motto in Kansas. In our anxiety for relief we should be careful not to resort to measures which may be disastrous to us in the future, while at the same time they may fall to accomplish the object desired. The burning of corn stalks and old trash of every kind on the farm, while I believe it amounts comparatively to but little in the destruction of bugs, yet on general principles I would destroy them. They possess no value as a modifier of climate and but very little as a fertilizer of soil, and whatever amount of bugs harbor in them are thereby destroyed. But when we begin to talk about burning

the prairies of our country all over with the idea of, in that way, destroying the bugs and all their hiding places, it would be wise I think, to call a halt and consider well the probable results of such a course. This idea I see cropping out all over the State, and I heard a prominent farmer here who is president of a farmer's club say, "We must burn our prairies all off. At the next meeting of

they have a double value. They are a modifier of climate, as trees are, and also a fertilizer of soil. Passing over the latter idea, their value as a fertilizer, as a protector, a conservator of the health and vital forces of the soil which nature so wisely provides for herself, I will briefly consider the idea of prairie grass as a modifier of climate. Among the numerous agencies which contribute di-

public calamity from which the country will not recover until nature can restore again that which was lost by the fire. It is like the destruction of immense forests from the face of the earth. It is like making an oven of the earth's surface in which to roast atmosphere and send it in hot currents up to the regions above, there to scatter or drive away clouds which might otherwise

fall in rain. It violates the law and disarranges the plan ordained of Heaven by which rain comes to the earth. We will not stop at present to inquire into the philosophy of rainfall nor into the reasons why the burning of prairies disarrange Heaven's plan for watering the earth. The reader is requested to accept these as facts and pass on. With these facts in view certainly no one will think of burning prairie grasses for the purpose of killing off bugs. Some say we must stop raising all kinds of small grain for several years—wheat, rye, oats, millet, etc., and grow nothing but corn with the idea, I presume, of either freezing them out in the winter by depriving them of sufficient winter quarters, or starving them out in the early spring, as they would have very short rations until the corn would come on. I have but little faith in this theory. In cases where farmers have abandoned these crops for this purpose and the bugs afterward disappeared, the conclusion is jumped at that of course that was the cause; whereas, if the facts were known the abandonment of these crops had not in the remotest degree anything to do with it. My opinion is this: That all we can do aside from burning stalks, trash, etc., is to check their progress while congre-



SOUTHWESTERN BUSINESS COLLEGE, WICHITA, KANSAS.

E. H. FRITCH, PRINCIPAL.

our club we will bring this matter up. We must have a law compelling the burning of prairies. We will never get rid of the bugs until we do."

I am radically opposed to this as unwise and disastrous. Were it true as asserted that the bugs harbor principally in the prairie grass in the winter, it does not follow that their destruction in whole or in part would be effected by burning over the prairies. My opinion is that the bugs, by pure instinct, would hug so close by the roots of the grass that the prairies being burned over not even the smell of fire would be left upon them. I remember in 1875 when young grasshoppers by the millions appeared on the prairie by the roadside. Farmers thought to utterly destroy them by burning the prairie. Some were killed in this way, but by far the greater portion of them passed through the fiery ordeal unharmed. Much less would chinch bugs be harmed in this way. If our prairie grass was of no more value than corn stalks and old trash on the farm, I would say burn it. Possibly the aggregate number of bugs might be lessened somewhat, but unlike the stalks and trash

rectly to that climatic change which has come over all of Kansas, I believe no one is so important as the suppression of prairie fires and the consequent accumulations of a mass of vegetable matter which serves as a mulch to the soil. The cleaning of the soil and opening up of the pores of the earth which is done by cultivating the soil, is unquestionably an important agency also for the reason that the rains as they fall enter more freely into the soil and are given off gradually to the air, moistening and cooling it. But the area under cultivation, especially in Central and Western Kansas, is as nothing compared to the area in prairie grasses, and these grasses accumulating for years constitute a mulch which in like manner holds the rains as they fall, imparting moisture and an invigorating tone to the atmosphere. Who that has passed through in a hot day in summer a burned district of prairie into a prairie district not burned, that has not experienced a marked difference in the atmosphere? In the former it is dry, hot, withering; in the latter, cool, moist and refreshing. I consider, therefore, the burning of a large district of prairie as a

gating by plowing a ditch around the field and occasionally dragging a brush through it to keep the soil friable, but this amounts practically to but little, as in a few weeks they fly, and coming from all creation around they quietly get down to business and sap the entire field. There is but one remedy for this evil, that is rain, rain, RAIN—emphatic rains, powerful rains, such as Kansas is in the habit of getting up when she feels in the humor. If such rains come this fall it is safe to sow wheat if we desire to sow it. If such rains do not come it is unwise to sow wheat. If such rains come this fall or next spring it will be safe to sow or plant all kinds of spring crops. If, however, they do not come in sufficient quantities in our judgement to destroy the bugs, then in my opinion it would be unwise to plant much in the spring except corn. I recently saw a letter on this subject from Commissioner Colman, of the Department of Agriculture, and he takes practically the same ground. I believe the prayers of the people for rain will be heard. A prayer, an earnest desire for some good, and in this sense everybody is praying for rain. As we know that nothing but rain can kill off these heartless crop-destroyers, we should pray often and well.

M. MOHLER.
Downs, Osborne county, Kas.

The Stock Interest.

DATES CLAIMED FOR STOCK SALES.

OCTOBER 12-12.—W. T. Hearne and U. P. Bennett & Son, one or two days' sale of Short-horn cattle, at Lee's Summit, Mo.

Some Thoughts on Feeding.

The animal organism is used by the farmer as a machine to work up his grass and grain into milk, fat, meat, etc. It is obvious that in order to have good and profitable work done the machine must be of the best kind and pattern, in best condition, and that the materials used in the manufacture must be the best and used in the most economical way. Besides these fundamentals, the farmer must consider what kind of goods he would have made, whether milk, and if so, whether that is to be used for making butter, whether lard, tallow, fat meat or moderately-lean meat, and he must feed accordingly.

The very large animal and the very fat one are not the most profitable to any one of the persons concerned in the making or the disposition of the carcass. A fair-sized animal matures sooner than a very large one, and is therefore more economical; the juicy meat which is most healthful and most in demand is that which has its fat among its tissues and not lying in bodies beside it. In connection with these matters feeding is very important, so that the best possible results are allowed and that no waste occur.

It has been demonstrated many times that if "full feeding" or feeding to fatten is not begun until the animal is matured, the lard or the tallow—the fat is "laid on," but not mixed with, the meat. It is understood on farms where one beef animal is killed every year for family use, that the best beef is made of an old cow or ox that is thin in flesh and fattened up as fast as possible. The reason of that is, that about all the meat put on the old frame is new meat, formed daily and hourly from the feed that would have formed fat largely had the animal been fat when the full feeding was begun. Such meat is all new growth, muscle and fat formed together during the process of growing. And that is an important fact to the farmer. If good meat is thus made by growing it on an old frame, why not adopt the same process on young frames and keep the calf growing right along fat from the beginning to maturity, and then dispose of the richest, juiciest meat ever made? That is the philosophy of meat-making. Breed healthy animals and start them on the way to market at the beginning. Make a business of feeding for good meat from the start. Keep the animal growing healthfully all the time; do not stop a day, for every stop is a slip backwards that must be regained.

In growing pork, if the hogs are kept in good growing condition all the time, one of them may be killed at any time and the meat is excellent—much better than that of a big animal put into the feed lot matured and fattened up in a few weeks, for it is a fact that in case of a mature animal, already in fair condition, the fattening process does not materially increase the quantity of lean meat, and that the increase in weight consists principally in fat. This fact shows, as suggested by a recent writer, that the time when lean meat is formed is when the animal is growing, and that the manner in which it is handled then determines the quantity of lean meat—the only real valuable properties for human food it can ever possess—and suggests that at that period the animal should receive generous keep, such as will stimulate the strongest and most active growth. In fact it calls for a re-

versal of the practice on most farms—where the so-called feeding is undertaken at the wrong end—where the young things are compelled to put up with almost any kind of keep, neglected at the period where attention can be most profitably given, and the error only sought to be corrected after the period of profitable growth has passed.

Farmers need to study this subject thoroughly. If animals are raised for breeding as for work, while their keeping should be regular and orderly, their growth need not be pushed, and if a little slackening in feed happens occasionally, so long as good health and heart are maintained, there is not much lost. But not so with those which are raised for meat. It is economy to feed regularly no matter what the beast is destined for; but more especially is the matter important in case of animals intended to be slaughtered for meat. There should be a studied effort from the very beginning to keep up continuously the best growth consistent with good health. Prepare feed in season, plenty of it. It is always better to have more than is needed rather than less. Some hay, fodder, grain, straw, whatever it is, in good condition. Prepare shelter and all needed conveniences for the most economical use of the feed. Make a business of feeding. And then, as soon as the animal is full grown, or a little before if need be, dispose of it.

Teach the Horse to Walk.

How much this is neglected. A good walking horse is much too rare. Did the reader ever take note of the distance a horse or a man can walk in a day if he is a good walker? It is true that a good walking horse will travel thirty or forty miles at that gait much easier than at any other. A team of good walkers is worth twice as much as another team, equal in other respects that cannot walk well. A farmer with a good walking team on good roads is near town though he live ten miles out. He can go and return in half a day and not go out of a walk. A plow team that walks well is worth two teams that have no gait.

And if a horse is to be trained for speed, the first necessary step in the process is to teach him to walk. *Wallace's Monthly* correctly says that the walking gait is the most important for all other horses, and should be the first gait developed and perfected by the trainer, and, after a rapid, clean, strong walk is acquired, the speed gait should be attended to, though very carefully until they are brought to a good degree of proficiency. Horses may be made to attain almost incredible speed at this way of going, if due care is observed. We have known numerous road-bred horses that would walk from four and a half to five miles in an hour without urging, and many, in fact most well-bred road horses could be taught to cover greater distance than this in the same time, if it were not for the pernicious custom (as we think) of putting the colts to the trot as soon as they are in the harness and before they are really bridle-wise.

Draft horses can be trained to walk well, even though they be very large and clumsy. The journal above quoted says: "It is a very great mistake to suppose that the draft horses cannot be trained to walk rapidly. We have been breeding to a Percheron for four years, that often walks nine miles in one hour and fifty minutes over a hilly road, and his colts are all rapid walkers. They are not as large as some, but they are large enough to do any kind of farm work easily and rapidly. This rapid movement has been of very great advantage to us in the last ten days when it was desirable to get the corn ground in the

best possible order in the shortest possible time. Life is too short to be poking along after a team that cannot get their heads up. The lazy man to whom exertion is a burden, actually works harder than the brisk, rapid worker."

Why Horses Shy.

I have never met a veterinary surgeon who knew anything about "cataract of the eye" in horses. I call it that as it is an expressive term. The trouble is the most general of any now affecting the horses of this country. It is the cause of nearly all, if not all, of the shying which surgeons fail to find a reason for except in "general cussedness." This cataract is of a brown growth, of a fungus nature, that spreads over the pupil from the top downwards. It has the appearance of a sponge growing away from its hold. It is difficult to see unless strong daylight falls upon the horse's eye exactly right. Then it can be seen plainly, a silent evidence of the animal's defective eyesight. I have examined horse after horse, and with but two or three exceptions out of about fifty I have found their eyesight thus affected. Of course it is worse in some than in others. It grows just like cataract or cancer; at first just dawning ominously on the upper edge of the pupil, then gradually extending itself. I have watched it expand on my own horse and its growth has been very marked in even the short time of two years. I have observed one thing about it that makes me certain that my conclusions are correct. Every shying horse I have examined has, without exception, been so afflicted. Never have I seen a horse shy whose eye was not clouded by this inexplicable growth. I began to study this curious defect after a long experience in trying to break my horse of shying. I took him to many veterinary surgeons, but all said it was his cussedness. I used to whip and punish him in every way to break him of it, but I could not. Now I remember how curiously he cocked his head at a suspicious object, just as a person with poor sight will try to get a better focus. Finally one day the light happened to strike his right eye and I saw the cataract. The whole thing was plain to me then. I have studied the matter carefully since, and the *Globe-Democrat* will be first to say anything about this prevailing effect. If anything has ever been published about it, and if any reason can be advanced I should like to hear of it. Whether it is because of the barbarous and cruel blinds which by shutting out the light and causing the animal to look forward instead of sideways, affect his eyes, or whether it is because of dark stalls, I cannot tell. But I am sure it is the cause of all the shying and much of the stumbling that now makes driving and riding so unpleasant and dangerous.—*St. Louis Globe-Democrat*.

Stock Notes.

The colt should be halter-broke when a week old and when allowed to follow the mother be led at her side. Accustom the mother to work without its following her, and when plowing near enough to the stable leave it there and take the mare in the middle of each day, to let it suck, or tie it in the shade at the side of the field.

There is no more profitable stock to raise than horses, always provided you raise good ones. If a mare be carefully handled she will do nearly as much work and raise a colt as though not bred, and it costs much less to raise a good horse than to buy one. It costs no more aside from the service of the horse to raise a colt to three years than a steer to the same age. After the colt is three years old he will pay his way and at four or

five years will sell for twice as much—ordinarily—as the steer.

While some have a natural tact to see the good and bad points of a horse, and others have, by long experience and instruction, become expert in looking a horse all over and through, almost at a glance, probably three-quarters or more of people are liable to make mistakes in buying a horse for work, for traveling, for riding, for wagon or carriage driving, or for any other purpose.

If it is true that the refrigerator people are making \$15 profit on every animal killed there ought to be a general scramble to "get in" on that lay-out. Such a profit on half a million cattle slaughtered would give seven and a half million dollars, or about 30 per cent. on the entire sum invested. Either the Trust is a good thing for its shareholders or these people who are crying stop thief are off their base.

When the larger animal has been secured by judicious breeding, with a fine dense or well-set fleece, equally distributed, shall we still further increase the wool-growing surface of the sheep by growing wrinkles? Ah! there is the rub. What volumes have been written on that subject. What hours have been spent discussing the question, and yet how various are the opinions of successful wool-growers on the subject of wrinkles.

Put the sow in the most perfect health, at least five weeks before farrowing. From that time keep it up. Put them on new, clean ground isolated from other stock. This is often half the battle. Examine the herd every day. If one lags back, is lame, or not squealing hungry, see what is the matter for certain. If there is a sneeze or cough, separate from the rest immediately and put in the hog hospital for treatment. Thus begin and thou shalt be saved and thy household of hogs. Physic them at least once a week and keep their bowels open by the best process known to you, as the young always suck all diseases from the mother, so through the mother it must generally be restored to health again.

Teach calves to feed from the pail, from the first.

While fat in brood sows is a drawback, a well-fed condition is an advantage.

Look to the feet of horses; those at work on soft ground are better off if bare-foot.

Don't make your horses deaf by loud yelling. The louder you speak to them the louder you will have to.

Currycomb and brush well applied are the best medicines to aid horses and cattle while they are shedding their coats.

Impurities of the blood often cause great annoyance at this season. Hood's Sarsaparilla purifies the blood, and cures all such affections.

A strip of sheepskin, with long wool, tacked to the places where a horse sets its teeth, and dusted occasionally with Cayenne pepper, will, it is said, have a restraining effect on the worst "cribber."

English Spavin Liniment removes all hard, soft, or calloused lumps and blemishes from horses, blood spavin, curbs, splints, swoeny, stifles, sprains, sore and swollen throat, coughs etc. Save \$50 by use of one bottle. Every bottle warranted by Swift & Holliday, druggists, Topeka, Kas.

The farmer who does not plan and provide work for his teams every fit day during the winter certainly does not know what is best for his horses. Besides it being best to work every day it is economy to have them do it if the work is directed, even if hired help has to be employed to accomplish it. There is no better time to do heavy hauling on the farm than when the ground is frozen, and the teams are never in better condition to do it. Besides all this it prepares the horses for the hard work which always comes with the opening of spring.

In the Dairy.

Keeping Butter for Winter.

In reply to a question from a correspondent of the *Country Gentleman*, Henry Stewart, the well-known authority on dairy matters, says:

"Some years ago, before creameries were invented, June-packed butter was the choicest of the winter stock. Dairy-men packed all their summer make, stored it in spring houses, or dry, cool cellars, and sold the whole out in October and November to the dealers, who went around to find and purchase it, and a farmer who knew how to make and to pack good butter, was always sure of an acceptable visit from a buyer. There is a large scope for the same sort of business now, in spite of the creameries, for good butter-makers, and some with excellent pure-bred Jersey cows are selling butter in the West for 10 and 12 cents per pound. The method with these old dairymen, who are not surpassed by any younger ones, was as follows:

"The butter was well made and of fine quality, and perfectly free from buttermilk; this is indispensable to the perfect keeping of butter in any package. The packages were (and should be now) the white-oak pails, new and fresh and well made. These hold 50 pounds each. It was not painted, but oiled and varnished outside, and the cover fitted very closely, and was keyed down with galvanized iron clasps. The pail was thoroughly soaked with cold water over night, and in the morning when the butter was ready for packing, the pail was well scalded and then rinsed with salt and water. It was then rinsed with fresh cold water, and the butter was firmly packed down with the ladle, especially around the edge, with care to leave no vacancies, and to get out all the water. As much butter was packed at once as to make about four or five inches in the pail; this was pressed smooth and sprinkled lightly with the finest dairy salt. Then another layer was added, pressed down and salted, and so on until the pail was full to within one-fourth of an inch of the brim. This required precisely 50 pounds of solid packed butter, free from excess of water. The top of the butter pressed, not rubbed, smooth and level, was covered with a piece of washed new linen, dipped in brine, large enough to spread an inch all over the edge of the pail. This was spread and pressed down on the butter and covered with dry salt level with the edge of the pail. The edge of the cloth was turned back over the salt and pressed firmly around the sides of the pail, and covered with a piece of cloth cut to fit the top of the pail. The cover was then put on and pressed down with a small lever to pack the salt tight, and fastened and keyed down. The pail was immediately carried to the cellar—a clean, dry, airy one—and set upon a bench two feet from the floor, and never on the floor. Butter so packed would come out in the winter ripe and full flavored, and with that sweet, nutty taste and sweet odor which only ripe butter has. I have kept butter so packed from June until the early spring following and have sold it then at four times as much as the prices current when it was packed; and this can be done again, for the butter so packed will keep much better in the grocery store after it is opened than the best new-made creamery will, and is consequently sought for by dealers in fine groceries."

Irregular feeding will do more to cause cows to dry off than any other method, while the practice of it is extravagant, inducing waste and loss of time.

Small Cheeses.

A writer in the *Rural New Yorker*, in speaking of ten-pound cheese, says: "Cheese of this size and of good quality and purity could be sold with the greatest ease. They are of such a size as to be consumed while fresh and in the best condition, and, what is very important, any person can easily carry one from a store, so that there is no objection to purchasing them on account of difficulty in getting one home. If I were in the business of making cheese for family use I would have thin, light, wooden or strawboard boxes in which a cheese would fit nicely, and it should have a neat handle and be labeled with my name and the name of the firm, and branded 'Pure, whole-milk cheese for family use.' My butter in similar packages has sold for at least twenty cents a pound more than it would bring in ordinary tubs."

The Young America cheese sold in this market always at one-half to one cent above cheddars and flats weighs about eight pounds. We have bought these for years in preference to a cut out of a large cheese, and if made in such quantity that retailers could be always supplied with them, of good quality, they would lead to a largely increased domestic consumption of cheese. The suggestion to dairymen to put each cheese in a neat box with a handle, for convenience in carrying, and with the name and address of the maker is a good one. These boxed cheeses could still be shipped as the unboxed Young Americas now are, four in a large box, which when opened would still leave each cheese protected from the air, dust and flies by its own box. The *Farmers' Review* has abated not one jot of its conviction that the cheese dairymen's interest lies in furnishing the markets near him with a good quality of cheese of convenient size for family purchase and consumption rather than in depending mainly on a market four thousand miles away.

Cost of Keeping a Dairy Cow.

This will vary in different localities according to the value of land, the ease with which forage or grain crops can be produced on the farm, the prices at which supplemental foods can be bought and other conditions which may enter into the problem. The question was up for discussion in the meeting of the Wisconsin Dairymen's association last winter.

Mr. Curtis, of New York, estimated the cost of keeping a cow in that State a year at \$37. Another party in the same State placed it at \$37.50. A Wisconsin dairyman placed the bare subsistence ratio at \$20, and the same amount to be added for profitable dairy product, making a total of \$40. Prof. Henry, of the Wisconsin Agricultural college, put the cost at \$28.50. D. W. Hoard reported a dairy herd of fourteen grade Jerseys which averaged \$84.49 value of yearly product at a cost of \$35 per head for keeping. The average of the five estimates above given is \$35.60, and this is probably not far from the actual cost. Taking these figures as a basis, and knowing what he realizes each year from his dairy, the farmer can approximate the average profit realized per head from his cows. At the same meeting the question of feeding grain to cows on grass was up. The general opinion expressed that it did not pay when pastures were fresh but did when they began to be short.

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Cards of three lines or less, will be inserted in the *Breeders' 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 to the advertiser during the continuance of the card.

HORSES.

PROSPECT FARM.—H. W. McAfee, Topeka, Kas., breeder of Thoroughbred Clydesdale Horses and Short-horn Cattle. A number of choice bulls, also horses for sale now. Write or call.

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CATTLE.

T. M. MARCY & SON, Wakarusa, Kas., have for sale Registered yearling Short-horn Bulls and Heifers. Breeding herd of 100 head. Carload lots a specialty. Come and see.

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.

WM. BROWN, Lawrence, Kas., breeder of A. J. C. C. Jersey and Holstein-Friesian Cattle. Stock for sale. Bulls, \$50 to \$100; Heifers and Cows, \$50 to \$150. Send for catalogue.

H. DAVIDSON, Wellington, Kas., breeder of H. Polled Angus and Galloway Cattle. The largest herd in the State. Choice stock for sale at all times. Correspondence and orders solicited.

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OAKWOOD HERD OF SHORT-HORN CATTLE.—All recorded. Choice-bred animals for sale. Prices low. Terms easy. Imported Earl of Gloster 74522 heads herd. C. S. Eichholtz, Box 1208, Wichita, Kas.

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SWINE.

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ELM GROVE HERD OF REGISTERED POLAND-CHINA SWINE and *Jayhawk strain of Plymouth Rock Fowls*. Z. D. Smith, proprietor, Greenleaf, Washington Co., Kas. Pigs and Sows bred, for sale. Satisfaction guaranteed. Eggs \$1.25 for 13; \$2.25 for 26.

WALNUT GROVE HERD OF POLAND-CHINAS. V. B. Howey, 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 Commander No. 6775 at head of herd. Pigs for sale, from 2 to 10 months, from \$10 to \$25.

W. H. BIDDLE, Augusta, Kas., breeder of Pure-bred Poland-China Swine, from most noted strains. Also pure-bred Bronze Turkeys. Have a choice lot of early birds at \$4 to \$5 per pair. Pigs at reasonable rates.

J. M. McKEE, Wellington, Kas., breeder of Poland-China Hogs—A. P. C. R. Five kinds of Poultry. Choice pigs and fine fowls for sale. Prices low. Write.

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

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

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.

F. M. LAIL, Marshall, Mo., breeder of the finest strains of

POLAND-CHINA HOGS AND PLYMOUTH ROCK CHICKENS.

Eggs in season, \$1 for 13. Catalogue free.

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.

W. W. WALTIRE, Carbondale, Kas., breeder for eight years of Thoroughbred Chester White Hogs and Short-horn Cattle. Stock for sale.

SWINE.

LEVI HURST, Oswego, Kas., breeder of thoroughbred Poland-China Swine. Eighteen years in the business. Pigs shipped C. O. D. to responsible parties.

F. W. ARNOLD & CO., Osborne, Kas., breeders of pure-bred Poland-China Swine. Breeders all recorded in Ohio Record. Young stock for sale. Also Wyandotte and Langshan Fowls and Pekin Ducks. Eggs, \$1 per 13.

SHEEP.

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.

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

H. V. PUGSLEY, Plattburg, Mo., breeder of Merino Sheep. Ewes averaged nearly 17 lbs.; stock rams, 34 lbs. to 38½ lbs. Extra rams and ewes for sale. Also Holstein Cattle.

POULTRY.

TOPEKA WYANDOTTE YARDS.—A. Gandy, proprietor, 624 Kansas avenue, Topeka, breeder of Golden, White and Silver Laced Wyandottes. Write for what you want.

HIGH-BRED LIGHT BRAHMA CHICKENS.—In season. Also eggs, \$2.00 per 13. J. A. McMahon, Box 229, Clearwater, Sedgwick Co., Kas.

IT WILL PAY YOU.—To send for our beautiful Illustrated Circular, full of valuable information. Sent free to all. Address C. A. Emery, Leck box 399, Carthage, Mo.

COLLEGE HILL POULTRY YARDS.—Pure-bred Brown Leghorn and Houdan Fowls for sale. Also eggs for sale. Send for prices. W. J. Griffing, College Hill, Manhattan, Kas.

MRS. MINNIE YOUNG, Warrensburg, Mo., breeder of pure-bred Bronze Turkeys, White and Brown Leghorns, Light Brahmas, Pekin and Rouen Ducks. Eggs in season. Write for wants. No circular.

TOPEKA POULTRY YARDS.—Wm. A. Eaton, Topeka, Kas., breeder of Plymouth Rocks, Light Brahmas, Partridge and Black Cochins. Can furnish W. & B. Leghorns and W. F. B. Spanish. Eggs \$2.50 per 13.

SUNFLOWER POULTRY YARDS.—T. S. HAWLEY, Topeka, Kansas, breeder of PURE-BRED POULTRY. Leading varieties.

MARMATON VALLEY POULTRY YARDS. Mrs. ALLIE E. MILBURN, (Lock box 1401), Fair Scott, Kas., breeder and shipper of thoroughbred Lt. Brahmas, P. Rocks, Wyandottes, B. Leghorns, B. Javans, B. Cochins, Mam. B. Turkeys, and P. Ducks. Fowls for sale at all times. Send for circular. Correspondence solicited and cheerfully acknowledged.

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.

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

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.

MISCELLANEOUS.

TOPEKA TRANSPORTATION CO.—Office, 517 Kansas Ave., Topeka, Kas. Telephone 179.

VETERINARY SURGEON.—Prof. R. Riggs, Wichita, Kas. Castrating Ridgling Horses and Spaying Cattle a specialty.

S. A. SAWYER, Fine Stock Auctioneer, Manhattan, Kas. Riley Co., Kas. Have Coast English, Short horn, Hereford, N. A. Galloway, American Aberdeen-Angus, Holstein-Friesian and A. J. C. C. H. R. Herd Books. Compiles catalogues.

Devon Cattle!

We are the largest breeders of this hardy, easy-keeping breed, one of the best for the West. Stock for sale singly or car lots.

RUMSEY BROS. & CO.,
EMPORIA, KANSAS.

TIMBER LINE HERD Holstein - Friesian Cattle.

We have for sale any or all of our entire herd of Holstein-Friesian Cattle, consisting of Cows, Heifers and Calves—full-bloods, and Grades up to fifteen-sixteenths. Ask for just what you want. Send for prices of family cows—grades. All our Holsteins will be at Winfield, Kas., after April 1, 1887.

W. J. ESTES & SONS.

HAZARD STOCK FARM

—OF—
NEWTON, - - KANSAS,

Breeder of A. J. C. & H. R.

Jersey Cattle.

The herd is headed by the Stoke Pegis Victor Hugo Duke bull, St. Valentine's Day 1877, and the Coomassie bull, Happy Gold Coast 14713. Sons and daughters by above bulls out of highly-bred cows, for sale for next ten days.

Address S. B. ROHRER, Manager.

Correspondence.

The Bran Question.

Kansas Farmer:

"How to make beef the quickest, the cheapest and easiest way," is the title of a pamphlet which has been sent to me by mail by some unknown friend. Why the author has been too diffident to append his name is singular. After reading, I concluded it was incubated entirely among the bran manufacturers. It is true they have brought to their aid Professors Henry and Armsby. In their little catechism Prof. Henry says the millers don't pay him anything for his opinion as to the great merit of bran, but he spoils the whole business by intimating that they could well afford to. Perhaps he may own an interest in one of these bran-producing establishments, as I understand one of the principal advocates of bran as the ultimatum of all feeds (Guilford Dudley) does.

Mr. Dudley says, "Science seems to say that bran is 25 per cent. cheaper than corn meal." But is it an actual fact? In a ton of corn there is thirty-five and one-third bushels, and at 30 cents that would be \$10.60, and bran has been selling at \$11 to \$15 per ton. In regard to Mr. Dudley's steers of 1885, I believe he says they never had any other grain but bran. Now I will ask him whether these steers did not run in a feed lot with others that were fed on a mixed ration of corn meal and bran during the winter of 1885-86. If they did not, I have been misinformed. At the fair at which the seven steers were exhibited they were fed a ration of mowed oats, and Mr. D.'s foreman informed me that they practiced cutting their oats green and making them into hay for their cattle. Now how much of this kind of hay did those experimental steers get? If they were fed any considerable amount, please don't put it all to the credit of bran.

Not in the little book, but in a newspaper article, Mr. D. says he considers bran superior (I don't remember his exact language) to oats as a food for work horses. Let us see. Everybody knows, and Mr. D. says so, too, that bran is a great milk producer. We all know that dairymen feed very largely of it because it makes the cow give milk, and milk is composed very largely of water. We feed bran to any animal that is costive or out of condition, because it is a laxative. If Mr. D. had a hard job of plowing or heavy teaming, or if he had to make a journey of fifty or sixty miles in his carriage in a day, or if he had a race horse that must run or trot this afternoon, would he feed bran in preference to oats because it is better as a muscle producer? Would he?

Now a few words in regard to the Minneapolis experiment of feeding the fifteen head of scrub steers. My recollection of a certain newspaper article from him is that they intended to experiment with "grade steers," but not finding them they had to take "scrubs." (Minnesota should go abroad and get some pure-bred bulls if grade steers are as scarce as this intimates.) Let us look at a few of the gains recorded in the table:

First month—No. 11 gained 63 lbs.; No. 9 gained 173 lbs. The 15 averaged a gain of 110 lbs.

It is stated that the steers had been running on poor range; they were shipped in and put in a small yard. The change of position is very radical. It is conceded by feeders to be a fact that cattle taken from pasture to the feed lot do well to show any appreciable gain the first month.

Second month—Nos. 1 and 3 gained 50 lbs. each; No. 4 gained 17 lbs.; No. 13 gained 15 lbs.

Third month—No. 1 gained nothing; No. 14 gained 64 lbs.

Fourth month—No. 1 gained nothing; No. 11 gained 82 lbs.

Average daily gain for the 15 for first month, 3.6 lbs.; for second month, 1.1 lbs.; for third month, 1.6 lbs.; for fourth month, 1.7 lbs.

The first month we have the phenomenal gain of 3.6 lbs. per day; for the next three months, when, according to precedent, we should have expected our best gain, we got less than 1½ lbs. per day; and yet we are told "that they were fed three or four days (which?) before the test began, so it cannot be said that the phenomenal gain is partially due to their filling up after their hard journey to Minneapolis." Oh, consistency! thou

art a jewel. Let us have "the truth, the whole truth, and nothing but the truth." I have used bran as an adjunct with corn and oats for more than twenty years, and I believe in that way it is generally worth what it costs. I have paid \$25 per ton for bran, but I must confess I think it was "dear for the whistle."

In the language of Guilford Dudley, "he who caused 3 pounds of beef to grow where but one grew before is a public benefactor." Aye, sir, but it seems they caused 3.6 pounds to grow before when not quite 1½ pounds grew after. Gentlemen, you are interested in the sale of bran; it is for your interest that it be largely fed. No doubt many ought to feed it who do not; but don't, please, claim that all this is being done for the benefit of the poor, ignorant farmer.

L. A. KNAPP.

Dover, Shawnee Co., Kas.

Manufactures in Kansas.

Kansas Farmer:

A friend in from our old home a few days ago tells me that of the four leading towns in the county, three of them are very dull, though one of them has had three railroads for a good many years, and the least one when I came away in '73, is the largest of the four without any more railroads than she had then. Further questioned he said that the fourth one first got a rolling mill, then a large wagon manufactory, then a manufactory for steam feeders, and one or two other small affairs, and now the city does more business than the other three. The story is short but it shows that even in the most fertile countries, with plenty of railroads, towns and cities can only rise about so high without manufactures of some kind. And perhaps some of our cities that are voting bonds by the tens and hundreds of thousands for railroads when they have two or three now, could better invest part of their money in helping start a large manufactory that would help them more in the end.

But the question comes up where shall we get the power to run manufactories, for there is no coal only in the eastern part of the State to amount to much for manufacturing. About fifteen years ago I saw an editorial in the New York Tribune, stating that Kansas had the best water-power west of Massachusetts. I was surprised at the statement, but the more I have studied the question the nearer it seems to be true. It is well known that Kansas is part of an incline plane, and some of her rivers have as much fall in passing through the State as the Mississippi river has from head to its mouth. A survey of the Republican river here shows sixteen feet fall in three miles by section lines; by damming it they propose to force part of it into a canal and by carrying it along three miles on a level the east end will give a fall of sixteen feet. With plenty of water as we always have that would give plenty of power for a number of mills. The water then goes back into the river again. The river bottom is so that every turn along the river could have a canal, and I presume most of our Kansas rivers could be used in the same way.

Manufacturing centers should be near cities, for operatives like to have all the conveniences of life. Gov. Sprague, after the war, went south and found a good water-power for manufacturing, and thought he would build some mills, and when he came back he asked his hands if they would go, and they answered by asking him if they had churches there. No. Schoolhouses? No. Were there theaters and newspapers? Oh, no. Then we shall not go. So the project was given up.

E. W. BROWN.

Crops in Saline County.

Kansas Farmer:

Corn and grass being seriously affected by drouth here. Small grain and millet not a crop in this section of country. If Mr. A. H. Cox had sent his chinch bug remedy several weeks sooner, and it proved as good as stated, and I don't doubt it, and the farmers in these parts had used it, they would have saved enough for a lifetime subscription to the KANSAS FARMER. In most places patches of corn as large as the patches of small grain adjoining them were destroyed by the bugs, even if a public road was between them. I believe the farmers in this country lose many times the price of the FARMER every year by not taking it. I will send you some more old agricultural papers.

A. CHENOWETH.

Brookville, Saline Co., Kas.

Southwestern Business College, Wichita, Kansas—Its History.

The Southwestern opened its quarters to students on Monday morning, June 8, 1885, over the First Arkansas Valley bank, on Main street, where it occupied two rooms; one, 18x20, was used for a school-room, and the other for an office. Two students applied for admission on the morning of the opening, and by the close of the first month the number was increased to six. This limited increase is assigned to the fact that within the two years previous to the establishment of the Southwestern four attempts had been made to establish a similar institution by four different parties and four different failures was the result.

Citizens of Wichita had lost all confidence in the success of a business college, consequently were reluctant in giving the Southwestern attention or patronage until convinced that the kind of work done there was imperative to an advancing community and rapidly developing country. No sooner had this fact been established, when students came flocking in from all directions, and both school-room and office were crowded with students before November 1.

The next step was to secure more spacious quarters. Mr. Noble proposed to erect a block on the corner of Douglas and Topeka avenues, and arrange the second floor commodiously for the accommodation of this rapidly growing school. In January, 1886, the Southwestern occupied its new and handsomely equipped quarters.

The change of location did not seem to retard the stream of students, and before December, 1886, these quarters were found inadequate, and Mr. Noble has just completed a sixty-foot addition to the rear of the block, which is already occupied by this flourishing business institution. During the last twelve months over 400 certificates of membership have been issued. Many young men and women have graduated, all of whom are now occupying lucrative positions as book-keepers and clerks. Many inquiries have been made regarding the unlimited success of this business institution, and it was decided that the adoption of certain new principles, which greatly facilitate accounts, together with the mode of instruction, render the course much more practical and comprehensive than those used at other business or commercial colleges.

It is the design of the teachers and principal to make the Southwestern the largest business college in the United States within the next two years. Write for circular.

Prohibition carried in Daviess county, Mo., by 500 majority.

Send for Catalogue of Campbell University.

Government revenues in July were more than a million dollars a day.

Farmers and dairymen will do well to call and see our new Creamery Cans, for sale at J. J. Floreth & Co.'s, 713 Kansas avenue, Topeka.

The Pope has decided that there is no ground for papal interference with the Knights of Labor question.

Itch, Pruritis Mangle, and Scratches of every kind cured in thirty minutes by Woolford's Sanitary Lotion. Use no other. This never fails. Sold by Swift & Holliday, druggists, Topeka, Kas.

It is estimated that the reduction of the public debt during the month of July amounted to \$5,000,000.

Send for copy of University Advocate, Holton, Kas.

Ohio Republicans, in State convention, put John Sherman forward as a candidate for the Presidency next year.

Boss Churns at lower prices than ever at J. J. Floreth & Co.'s, 713 Kansas avenue, Topeka, Kas.

Secretary Whitney announces that the negotiations which have been pending between the Navy and the Hotchkiss Ordnance company have culminated in a contract, the effect of which will be the establishment of a branch manufactory for the Hotchkiss ordnance in this country.

Send for copy of University Advocate, Holton, Kas.

The national committee of the Prohibition party are called to meet in Chicago, Ill., on the 16th of November, 1887, at 10 o'clock a. m., for the purpose of fixing the time and place of the national nominating convention of 1888, and transacting such business as pertains to the national committee.

Short-horn Bulls for Sale.

A number of choice young thoroughbred Short-horn bulls for sale at low prices and on satisfactory terms to purchasers. Address, at once, J. B. McAFEE, Topeka, Kas.

FACTORIES AT PHILADELPHIA.

BLACK DIAMOND PREPARED - ROOFING!

FOR ANY ROOF AND ANY CLIMATE.

Put on by Anybody! Ready to Apply! Cheapest Roof

—IN USE!



Twelve Concerns Have Used About 700,000 Square Feet.

	Square feet.
Texas State Fair and Dallas Exposition Association.....	410,000
Chas. Schmisser, West Belleville, Ill.....	73,000
St. Louis Press Brick Co., Collinsville, Ill.....	60,000
Adolph Coors, Golden, Col.....	30,000
Corsicana (Texas) Fair Association.....	20,000
Belleville Nail Co., Belleville, Ill.....	20,000
Iola Carriage and Omnibus Co., Iola, Kas.....	23,000
Parker-Russell Mining and Manufacturing Co., St. Louis.....	20,000
Tupelo Compress Co., Tupelo, Miss.....	16,000
W. B. Kline & Co., Birmingham, Ala.....	16,000
Saline County Fair Association, Marshall, Mo.....	10,000
French Market, city of St. Louis.....	8,000
Total.....	706,000

M. EHRET, JR., & CO., Sole Manufacturers.
W. E. CAMPE, Agent. Warerooms and Office. 113 N. 8th St. St. Louis, Mo.

Gossip About Stock.

The cheering rains in various parts of the State this week have improved prospects considerably for stock raisers. A large acreage for rye pasture will be of immense benefit to all concerned.

Abilene Gazette: On Sunday morning twenty-one carloads of New Mexico cattle will arrive over the Chicago, Kansas & Western railroad, for Messrs. Ball & Blevins, and on the following day another train of twenty cars will arrive over the same line, for the same parties, making a total shipment of about 1,500 head of cattle.

Olathe Mirror: Mr. George Bolton shipped 202 fleeces, which brought him \$444.48, or a little over \$2 per fleece. After deducting all expenses his net returns were over \$400. Mr. Bolton commenced the sheep industry about ten years ago with thirty-three head; this year he sold over \$1,000 worth of wool and mutton, and has 330 head of sheep left on his farm at the present time.

G. W. Glick & Son, of Atchison, have now at the head of their Shannon Hill Stock Farm the 8th Duke of Kirklevington 41798, bought of John Wentworth, of Chicago. This bull is in thin flesh and weighs 2,500 pounds. He was bred at the Bow Park Herd, Canada, and cost Mr. Wentworth \$1,760 when six months old; was sired by Imp. 4th Duke of Clarence (33597), a pure Duchess out of Imp. Kirklevington 19th.

Oscar Voigtlander, of Ellsworth, writes: "You say on page 15 of your issue of July 21—'Many accidents will be avoided by putting brass knobs on the tips of the horns of cattle.' It strikes me that still more if not all accidents from horned cattle will be avoided by sawing the horns off. I had occasion to sell my dehorned cattle, and the man I sold them to says he never saw such quiet cattle. Saw the horns off and have no accidents."

E. S. Shockey, Secretary of the Hereford establishment at Maple Hill, writes: "Extreme dry weather, causing such a scarcity of water, is forcing us to sell 500 head of very choice grade Short-horn cows and heifers at beef prices. They are too choice to go to the butcher; but go they must, unless some of your readers will come and save them from being sacrificed. We will sell all or a part of 200 head of very handsome yearling heifers, 200 head of 2-year-olds, or 200 head of solid red high-grade Short-horns with a very fine crop of calves at foot. The sale must take place within the next ten days at some price, and bargains can be expected."

The public dispersion of finely-bred and well-conditioned Jersey cattle which took place at Newton, Kas., on the 27th ult., the property of the Hazard Stock Farm, was not as largely attended as anticipated, owing to the drouth and its dire results, causing every one to use care and judgment in each branch of industry. However, prices procured were exceeding good, all things considered, and the lucky purchasers may well feel proud of the choice bargains obtained at this offering. Ten males ranging in age from 2 months to 3 years brought \$310, or an average of \$31. Thirty-six females ranging from 3 months to 10 years of age brought \$2,875, or an average of \$79.86. Full total, \$3,185. At close of sale Mr. Rohrer disposed of several choice animals at private figures far in excess of those secured at public offering, which goes to show that it ever pays to propagate the best, and in this respect the Hazard Stock Farm, under the efficient management of Mr. Rohrer, is taking the foremost position as one of the finest A. J. C. C. breeding establishments in this country.

The fall term of Pond's Business College, Topeka, Kas., reopens September 12. Business and short-hand courses excellent—no better east or west, north or south. Come.

A special meeting of the stockholders of the Atchison, Topeka & Santa Fe railroad company will be held at Topeka for the purpose of voting upon a proposition to increase the capital stock of the company by the amount of \$7,000,000, making the whole amount of the capital stock \$75,000,000, and to authorize the directors to issue and dispose of the same. It is intimated that the purchase of an important Eastern line, which would give the A., T. & S. F. an outlet to the Atlantic, was soon to be consummated, and that it was for this purpose the bonds are issued.

Offensive breath vanishes with the use of Dr. Sage's Catarrh Remedy.

WESTERN KANSAS!

Full information regarding the great and rapidly-developing Southwestern Kansas given on application. **200,000 ACRES OF CHEAP LANDS FOR SALE!** Price \$2.25 to \$5.00 per acre. Terms easy. All inquiries about Western Kansas promptly answered, and the "Settler's Guide" sent free. Railroad fare one way free to buyers of a half section, and round trip fare refunded to buyers of a section of land. Address DUNN & BELL, GARDEN CITY, KAS.

STIMMEL, ROBINSON & BRIGHTON,

REAL ESTATE AGENTS,
HUTCHINSON, - - - KANSAS.

10,000 acres of improved and unimproved land in Reno and Harvey counties for sale very cheap and on long time at 7 to 8 per cent. interest. Also farms and good pasture lands to exchange for merchandise or Eastern property. All kinds of stock taken in part payment on some of this land. Correspondence solicited.

CITY HOTEL, -:- CHICAGO.

State Street, Corner Sixteenth Street.

Rate \$1.50 Per Day.

Convenient to Stock Shippers. A good Family Hotel.

Table and Rooms first-class. State street, Archer avenue or L. S. & M. S. Dumray pass the house to all parts of the city and depots.

W. F. GRUTT, Proprietor.

Cheap Homes!

MEADE COUNTY, KANSAS. Organized; county seat permanently located at Meade Center; free from debt; well watered; deep, rich soil; no waste land; fine building stone. Three Railroads coming at the rate of two miles a day. Land cheap, but rapidly advancing. **MEADE IS THE BANNER COUNTY OF THE SOUTHWEST,** having won a special prize this year for county exhibit at the Southwestern Exposition, fifteen counties competing, and another at Dodge City Exposition over all competitors. Now is the time to invest. For further information address J. A. LYNN, Land and Loan Agent, Meade Center, Kansas. All representations guaranteed.

SCAB! Only SHEEP DIP sold under Positive Guarantee. Never fails. Ten Years of Continuous Success. Nothing Poisonous about it. LADD'S TOBACCO SHEEP DIP

Is guaranteed to ERADICATE SCAB and VERMIN as surely in mid-winter as mid-summer. Those who have used other dips, with no, or partial success, are especially invited to give ours a trial. Its use more than repays its cost in an

INCREASED GROWTH OF BETTER WOOL.

Our new pamphlet, seventy-two pages, ready for free distribution. Send for it.
[Mention this paper.] LADD TOBACCO CO., 1319 Spruce St., St. Louis, Mo.

CHAMPION Hay : Stacker : and : Rakes!

GUARANTEED TO BE THE BEST IN THE MARKET, AT THE FOLLOWING VERY LOW PRICES:

STACKER, AT \$50.00. -:- RAKES, EACH, \$20.00.

S. R. STOCKWELL, Agent,
OFFICE—With Warner & Griggs. Corner Sixth and Quincy Sts., TOPEKA, KANSAS.

OAKLAWN FARM,

The Greatest Importing and Breeding Establishment in the World! Its Importations of Percherons have Exceeded the Combined Importations from France of any other Eight Establishments of the kind in America.

1868.

July 20th, arrived at Oaklawn,

SUCCESS.

The first stallion ever imported direct from France to the State of Illinois, who still lives and occupies his stall at the farm, an object of interest as a famous and useful sire, who, by his valuable qualities, gave the most marvelous impetus to progress in horse-breeding ever known.

OAKLAWN MAINTAINS ITS PRE-EMINENCE
IN CHOICEST SELECTIONS OF

Percheron Horses!

—AND HAS—

Demonstrated the Value of Experience

(WHICH CANNOT BE BOUGHT) BY THE

SUPERIOR QUALITY OF THE STOCK IN ITS ANNUAL IMPORTATIONS FOR 1887, NUMBERING ABOUT 300 HEAD,
And including the **First-prize Winners** of the last and **Greatest** of all the Horse Shows of France the present year, held at Mortagne, by the **Society Hipplique Percheronne**. At this show were exhibited about 400 pure-bred Percherons, being three times as many as were shown at any other Fair of France this year.

All the First-prize Stallions but one and Eleven Other Prize-Winners
of this show were part of the stock previously selected in person by M. W. DUNHAM, for importation to Oaklawn Farm, Wayne, Ill.

FRENCH COACH HORSES---50 STALLIONS AND MARES,

Selected from the best breeding establishments of the country, several of which have never heretofore sold to a private individual until the French Government had made its selection and purchase from the stable. This lot comprises nearly all the prize stallions of the Government Show of 1887, and three of the five stallions entered for the French Derby Trotting Stakes—value 125,000 francs. The Coach stallions combine size, action, beauty and endurance; weight 1,200 to 1,500 pounds. These horses are the get of stallions owned by the French Government, and are all large (16 hands or over) good actors with fine symmetry; in fact, the best lot ever seen together. The mares are of the choicest individual excellence, and bred to Government stallions.

TWO IMPORTATIONS ON THE WAY.

ANOTHER TO ARRIVE BY SEPTEMBER 1st.

Permanent Success in Breeding Assured Only by Selection of the Best.

Visitors welcome. Carriages at all trains. Send for 200-page catalogue, illustrated by ROSA BONHEUR. Address

M. W. DUNHAM, Wayne, Du Page Co., Illinois.

Campbell University,

HOLTON, JACKSON CO., KANSAS.

FALL TERM Opens September 6, and Continues Ten Weeks. Tuition \$10.00 Per Term.

THE PREPARATORY COURSE—Requires two years, but when good grades are brought by the students, they may be excused in some of the lower branches. This course prepares for the Collegiate course, here or elsewhere, or to those who can remain in school no longer it gives a good Academic education. It prepares for teaching in county or village schools of three or four departments. At this point students may elect the **CLASSICAL, MODERN LANGUAGE, SCIENCE or MATHEMATICAL** course, requiring two years more.

THE PREPARATORY MEDICAL DEPARTMENT—Receives students from any good preparatory school, and in one year fits them for the second year of any Medical College in America into which they can enter without examination.

THE DEPARTMENT OF MUSIC—Is now thoroughly equipped. The Department has four pianos and two organs, with freedom to use a pipe organ. Instruction can be given upon piano, organ, cornet, violin, guitar, flute, etc., etc. Instruction is also given in voice culture, chorus singing, harmony, history of music, etc. Four Professors are in charge. A band and orchestra will be organized.

THE COMMERCIAL DEPARTMENT—In its new rooms will be made more efficient than ever before. The constant endeavor has been to keep the work superior to that found elsewhere in the West. More real work and less "red-tape" give our students more practical ability. The Department will occupy two elegant rooms. The actual business plan is pursued along with the recitation plan.

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ADDRESS

PRES. J. H. MILLER.

The Home Circle.

A Song of the Sunset Land.

In the far-off hills of the sunset land;
In the land where the long grass bends and
quivers,
Where the ghosts of night and morning stand
By the gleams and dreams of the lonely
rivers,
Where the brown sedge waving, stoops and
shivers
At the water's edge in the sunset land.

Through the trackless paths of the sunset
land;
Where the silence broods in a dream un-
broken,
And the days slip by like grains of sand,
Where the song unsung and the word un-
spoken
Seem like a part of a nameless token
Of the wild gray wastes of the sunset land.

On the snow-clad peaks of the sunset land;
As they ride in the clouds so near to heaven
In shadowy vastness, stern and grand;
Where gaunt old pines by the lightning riven
Moan in the wind, through their branches
driven
On the crags and cliffs of the sunset land.

'Mid the rolling plains of the sunset land,
Where the echoes drift in the tufted heather,
In the wake of breezes sweet and bland;
Where the shadows go in a troop together,
Across the haze in the fair June weather
In the grassy dells of the sunset land.

By the wand'ring streams of the sunset land
Where the ripples rise 'mid the tall reeds
bending
And float away to an unknown strand;
And the shade and the sunlight slow de-
scending
Falls where the voice of the waters blending
Sings of the sunset land. —Ernest McGaffey.

This is the state of man: To-day he puts forth
The tender leaves of hopes; to-morrow blos-
soms
And bears his blushing honors thick upon
him;
The third day comes a frost, a killing frost,
And, when he thinks, good, easy man, full
surely
His greatness is a-ripening, nips his root,
And then he falls. —Shakespeare.

Age sits with decent grace upon his visage,
And worthily becomes his silver locks;
He wears the marks of many years well spent,
Of virtue, truth well tried, and wise experi-
ence. —Rowe.

Force never yet a generous heart did gain;
We yield on parley, but are stormed in vain. —Dryden.

Ready While You Wait.

"While you wait!"
It is now many years since this expression
was made popular by a down-town hatter,
who advertised to "block your hat while you
wait, for 50 cents," but it still retains its
value in a commercial sense, and has been
appropriated by the manufacturing world
generally throughout the length and breadth
of the land. As originally applied to the
hatter's business it was ridiculed, laughed
at, and criticized perhaps more than any
other expression of the kind, unless it be the
oft-quoted "boots blacked inside," and yet
to-day it is an important line in the adver-
tisements of nearly every manufacturing in-
terest in the United States. Do you want a
pair of trousers, a suit of clothes, a shirt,
your shoes soled and heeled, a new main-
spring in your watch, a set of false teeth, a
house built—do you want anything that can
be made by the hand of man—you can get it
"while you wait."

At a certain haberdasher's shirts can be
had to order, made after any pattern, in any
size, guaranteed to fit and ready to wear
while the customer is getting shaved around
the corner. It is accomplished by having
ready cut sleeves, yokes, bosoms, bands and
bodices always on hand. A capable cutter
with a few flashes of his big shears will cor-
rect the defects of any of the parts, skilled
operators will run parts through the sewing
machine in a twinkling, while a patent
washer, rinser, wringer, dryer and ironer
will turn the shirt out ready to be put on,
and all inside of twenty minutes.

In a certain street, within the shadow of
police headquarters, there is a concern that
will sole and heel your shoes while you look
over the columns of the daily paper and de-
termine to what place of amusement you
will go in the evening. The tailors on the
Bowery who will measure a customer for a
pair of pants, cut, trim and make them and
press them while he is taking his lunch are
numerous, while those who will turn out a
full suit of clothes while the customer is
taking in some of the theaters near by are
quite as many.

Dentists, who have in stock all kinds, va-
rieties and qualities of plates, and will fit a
patient's mouth with a partial or full set of
teeth in less time than it once took to draw

a single tooth, abound on Eighth, Sixth and
Third avenues, as well as some of the cross
streets. In Chicago there is a dentist who
advertises to furnish new and full sets of
teeth, guaranteed to give satisfaction, by
mail or express, and sends the same to re-
mote points on approval. A firm of builders
in Michigan will ship at once on receipt of
order any size, kind or variety of a frame
structure that may be desired. Parties in-
tending to locate in Florida or at the sea-
shore are especially requested to send for a
descriptive circular. These houses are built
in sections and shipped as they are built.
An hour's work, the proprietors say, will
make any changes that a customer can pos-
sibly want. Several persons who will sum-
mer at Asbury Park and Ocean Grove this
year, it is understood, will introduce these
ready-made homes there early in the season.
The same manner of houses were prepared
for the late Greely relief expedition.

The secret of cleaning and repairing
watches while you wait is, according to the
assertion of the manufacturers, that the en-
tire movement is taken out and a new one of
the same kind is substituted. Now that
most of the movements sold are made by
machinery and of standard sizes, just as the
cases of a watch are made, it is easy to see
how this can be done. Persons having a
Jurgessen or any other valuable movement,
however, would do well to pause before they
have a watchmaker repair their timepieces
while they wait. Still, there are parts of a
watch movement that can be duplicated at
almost a moment's notice without affecting
its value, such as pinions, ratchets, gear
wheels and screws.

The science of cutting, fitting and trim-
ming ladies' garments has progressed to such
an extent that a dressmaker very often
makes an entire suit for a customer while
she is finishing a shopping tour, and, as is
oftentimes done by men's tailors, habit-
makers cut, fit and make dresses while a
customer waits in the parlors. Printers will
prepare a form for a job, make it ready, and
run off an order while a customer writes a
letter, and recently the writer had a card en-
graved and printed while he selected a wed-
ding invitation for a friend. Until recently
the ease and dispatch with which a man
could get a divorce in some of the Western
courts was set forth in the assertion "that
railroad trains stopped thirty minutes at cer-
tain towns, where all who desired could se-
cure a divorce while they waited." Without
going to this extreme, it is safe to say that
to-day a man can get almost anything while
he waits. —New York Mail and Express.

To Check Bleeding.

The natural process by which bleeding is
stopped is the formation of a blood clot
which plugs the orifice of the divided vessel.
When an artery is divided the cut end re-
tracts or shrinks so that the formation of a
clot is facilitated, but the blood current is so
strong, unless loss of much blood has dimin-
ished the force of the circulation, that it
hinders the coagulation. It should, there-
fore, be the aim of an assistant to check or
stop the flow of blood from the artery in
order that the beginnings of clot formation
may not be swept away by the current.
This may be accomplished by pressing upon
the orifice of the vessel in the wound, or by
pressing the edges of the wound firmly to-
gether, or, in cases where this not easy and
efficient by compressing the artery which
supplies the part from which the hemor-
rhage is taking place in some part of its
course between the heart and the injury.
The main arteries supplying the head lie in
the neck, one on each side of the windpipe,
where their pulsations may be readily felt.
In case of a wound of an artery in the neck,
the cut ends of the vessel should be com-
pressed with the finger, if possible, or the
artery, both below and above the wound,
should be pressed firmly backwards against
the backbone. Unless skilled surgical aid
can be speedily obtained, there is little hope
of saving life in case these great vessels are
wounded. —Good Housekeeping.

A very large number of Irish names end
with "agh." Agh generally means field in
Irish. Thus: Cavanagh means hollow field;
Currah, race field. It is not improbable that
these names were originally given to people
who dwelt in or near localities which were
indicated by the name.

Send for Catalogue of Campbell Univer-
sity.

Notes and Recipes.

Try buttermilk for the removal of tan and
walnut stains and freckles.

It is well to varnish an oilcloth twice a
year, and if you do, a good one will last as
long as you will want it to.

White paint that has become discolored
may be nicely cleansed by using a little
whiting in the water while washing.

To clean satin that has become greasy,
sponge lengthwise, never across the width,
with benzine, alcohol or borax water. Press
on the wrong side.

It is said that white spots can be removed
from furniture by rubbing with essence of
camphor or peppermint, and afterwards
with furniture polish oil.

Velvet wears better, if brushed with a hat
brush, by pressing down into the nap and
then turning the brush as on an axis, to flit
out the lint. Do not brush backward or for-
ward.

Keep cut flowers fresh for several days by
filling a vase with clean sand, to which is
added a liberal supply of powdered char-
coal. Imbed the stems of the bouquet in
this, and water occasionally.

Saleratus is excellent for removing grease
from woodwork which has not been painted.
Spread thickly over the grease spots,
moisten, and after it has remained a half
hour wash off with tepid soapsuds.

Glycerine in its pure state should never be
used for chapped hands, as it absorbs mois-
ture from the skin, leaving it dry and liable
to crack. When moderately diluted with
water, however, glycerine is an excellent ap-
plication.

Steamed Pudding.—Two eggs, one cup of
sugar, one cup of sour milk, one teaspoonful
of soda, one-half teaspoonful of salt; add
flour to make a stiff batter; one cup of cur-
rants or raisins. Steam in a buttered pud-
ding dish one and one-half hours.

Clothes of wool which are rarely brushed
and never hung out-of-doors soon come to
have an appearance of long use, when the
same clothes, if carefully brushed every day
and frequently hung out-of-doors, will al-
ways be fresh, and will keep their good
looks much longer.

Hard Sauce.—One large cup of powdered
sugar whipped to a cream with two table-
spoonfuls of butter, one great spoonful of
currant jelly beaten in well, as much cinnam-
on as will lie on a half dime; when mixed
heap on a saucer or glass dish and set in a
cold place to harden.

It is better to hang than to fold almost all
dresses that are not wash dresses, if one has
sufficient room; but if the room is limited
and the dresses crowded if hung, then they
should be folded, as anything is better than
the "stringy" look which dresses crowded
together in a small closet may soon acquire.

Oatmeal Crackers.—Two cups of oatmeal
and one of prepared flour, half cup of butter
chopped up with meal and flour, one tea-
spoonful of salt, two cups of cold water.
Mix into a pretty stiff paste, roll into a thin
sheet, cut out as you would biscuits, and
bake on a griddle, turning when the under
side is brown; leave them in a cooling, open
oven over night to dry.

The trimmings of cold boiled or roasted
ham may be utilized in a very appetizing
breakfast dish of ham and eggs on toast.
Chop the ham fine and spread it upon deli-
cate slices of buttered toast, and place in the
oven for three or four minutes. Beat up six
eggs with half a cupful of milk; add a little
pepper and salt. Put this in a saucepan over
the fire, add two ounces of butter and stir
till it begins to thicken. Take it off the fire,
stir for a moment, then spread on the ham
and serve immediately.

Good Coffee.—The best coffee is made
from mixed Mocha and Java berries, care-
fully roasted and ground. Pour a coffeecup-
ful into a pot that will hold three pints of
water; add the white and yolk of an egg, or
two or three clean egg shells, or a well-
cleansed and dried bit of fish skin the size of
a ninepence. Pour upon it boiling water,
and boil ten minutes. Then pour out a little
from the spout, in order to remove the
grains that may have boiled into it, and pour
back into the pot. Let it stand eight or ten
minutes where it will keep hot, but not boil;
boiling coffee a great while makes it strong,
but not so lively or agreeable. If you have
no cream, boil a saucepan of milk, and, after

pouring it into the pitcher, stir it new and
then till the breakfast is ready, that the
cream may not separate from the milk.

The Distance of Planets.

The following table gives the distance
from the sun of the planets:

	Miles.
Mercury.....	36,000,000
Venus.....	68,000,000
Earth.....	91,000,000
Mars.....	145,000,000
Asteroids.....	260,000,000
Jupiter.....	494,000,000
Saturn.....	906,000,000
Uranus.....	1,822,000,000
Neptune.....	2,853,000,000

It will be seen that the farthest planet
from the sun is Neptune, and the nearest,
Mercury. The one is invisible to the naked
eye from its remoteness, the other from its
contiguity. The largest is Jupiter, the
smallest, Mercury, whose diameter is but a
fourth larger than the moon, while the
diameter of Jupiter measures 92,000 miles,
the earth's being 8,000. These having satel-
lites are Jupiter, four; Saturn, eight; Uranus,
four; Neptune, one. Venus and the earth
are very near alike in size. Mars is smaller,
having a diameter of about one-half of either
of the other two, or one-sixth their bulk.

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HOMEOPATHIC

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The Young Folks.

The Dinner Horn.

When lazy dials point to noon,
And clocks are chiming out the hour;
When sable Phillis' gins to croon,
And pigeons nod upon the tower;

Black Tom, beneath the spreading tree
That shades the pleasant farm-house yard,
Looks out across the shimmering lea,
And blows the bugle long and hard.

Blow, bugler! let the echoes float
The fields and woodland slopes along.
Till every wild but mellow note
Burst on the distant hills in song.

Sound thro' the valleys, cool and green,
Where tinkling brooklets purl and creep;
Sound where the nodding flowers are seen,
And wake the poppy from its sleep!

Where cattle drink by shady streams,
Where wave the yellow fields of wheat,
Where plowboys drive their sweating teams,
Send out thy notes prolonged and sweet;

The lab'r casts aside his hoe,
The horse, delighted, 'gins to neigh;
What says the bugle, well they know,
Although it speaks a mile away:

"Come to the cool and dripping well,
And at its mossy curb-stone kneel,
And lave the sweaty face a spell,
And eat the simple noon-day meal.

There's cider, from the oaken press,
Hid in the cellar dark and old;
There's many a sweet you cannot guess,
There's tempting cream the hue of gold."

Sing, bugle, sing with all thy power!
And let thy last note be the best;
Thou hast announced the golden hour,
The noon-day's hour of drowsy rest.

O, bugle of the good old days,
Forever silent in the South,
Poor Tom has grown too weak to raise
Unto his lips thy yellow mouth.

No ducky of the younger brood,
Though he should blow his lungs away,
Can send aloft, o'er field and wood,
The notes that he was wont to play.

The songs the red-lipped maidens sing
Along my pulses bound and thrill;
They charm, but no such pictures bring
As that old bugle on the hill.

I seem again with blushing June
To stand amid the fields of corn,
When'er, thro' languid airs of noon,
I hear the distant bugle horn.

And, oh! I sigh for boyhood's time,
For our old homestead on the hill,
And for the drowsy, droning rhyme
Sung by the busy water-mill.

The cherry's blood was richer then,
The peach was of a deeper hue,
And I have wondered if again
The skies can ever be so blue.

Ah! could I be again a boy,
And could I be where I was born,
I'd kiss thy lips with reverent joy,
And hug thee, battered bugle horn.

—W. T. Dumas, in Southern Cultivator.

Brushes and Brush Making in Chicago.

There are, great and small, some twenty-five brush making establishments with directly and indirectly some three thousand persons employed, in this vicinity, to say nothing of the employment which obtaining and preparing the raw material produced in this country gives.

By far the greater part of the raw material is imported, and it is of a character of pure, coarse, cheap raw material, with the exception of bristles and a few kinds of hair, which cannot be produced in this country from purely natural, climatic reasons, and which should for that reason be allowed to come in in the cheapest, freest manner possible.

Bristles from Russia and France are by far the most expensive article of the brush manufacture, and while these have no equal and no substitute in this country, the duty should be entirely removed from bristles, and while \$1,000,000 worth are now annually imported the amount would doubtless be increased and stop the importation of fine foreign-made brushes and give more employment to our people.

At this time the cost of fine bristles is so great that very few fine brushes are made in America, the low duty upon foreign brushes enabling them to be imported cheaper than we can make them. As the government does not need the revenue and American workmen do need the labor this should be remedied.

The foreign bristle in no way comes in competition with the home product. The last remains of the wild breeds of hogs have departed from this country, and as high breeding reduces the length of the bristle there is nothing in this country worth over 35 to 50 cents per pound, while foreign bristles run up to \$4 per pound, because of length and stiffness or other peculiar character.

Brush making is very largely made up of

manual labor, hence the industry has suffered heavily from the competition of convict labor, whose product must be sold, and hence is placed in the hands of dealers often at very unremunerative prices, thus destroying a legitimate industry. This question is, however, being agitated, and will, no doubt, be remedied at an early day. Prison labor made goods should be exported.

SOURCES OF THE RAW MATERIAL.

Some American bristles are used for ordinary brushes with short bristles. These bristles are obtained by those employed for that purpose at the slaughter and packing houses, who scrape off the handful of bristles from the mane of the hog as it comes out of the scalding vats. Hog's hair has only the value of being used for other industries, in stuffing chiefly.

Another American article is the hair taken out of the ears of the ox used to make artists' brushes, round and flat, and fresco brushes. Bear's hair is also used for mortars, as is the hair of the American skunk's tail.

Very little else of American production is used in brush making. Some rice root is prepared in this country and more might be, but the greater part is imported from the cheap labor countries for brushes for scrubbing and scouring purposes.

Cocoa fiber from the cocoanut, rattan, palmetto and cane for coarse work are mostly imported.

Horse hair, manes and tails are both imported and domestic.

The finest article and the one standard in all good work is the Russian, French and Chinese bristle. From these articles of great stiffness, great length and white or black, the brush maker furnishes the finest brushes.

Another article from which camel's hair brushes are made is the Siberian squirrel's tails, a much finer article than can be elsewhere found.

Fitch hair, Russian and German, is another important article with no substitute in this country, although one firm in this city use 50,000 skunk tails a year.

Tampico, kittool and heather for coarse work are also imported, prepared and unprepared.

KINDS OF BRUSHES MADE.

In the cheap bone, tooth and nail brushes and in fine ivory there is very little done by any makers in America. These are imported at lower prices than they can be made for at home under existing low duties on manufactured articles and with a duty upon the raw materials.

In celluloid and similar goods the American product is very large and growing, but while this competes with ivory it cannot compete with the cheap English and German bone.

In solid back hair brushes of ebony, tulip, mahogany and rosewood, we saw at Gerts, Lombard & Co's factory, some very fine articles, equaling anything imported. They also make some of ivory solid back worth as high as \$40 to \$50 per dozen. But in all this the fine material is expensive, the skilled manual labor is high and there is little of profit.

Whitewash and calcimine brushes all bristle and mixed material from 6 to 10 inches wide, and worth from \$5 to \$150 per dozen. Wall paint and other paint, some of very long stock, and worth as high as \$60 per dozen wholesale. Flat and oval sash, oval and flat varnish, spoke, stencil, bill posters, glue brushes, flat and wall stippling brushes, and paper hangers, with bristles up to 10 and 12 inches long.

A very fine line of goods is in artists' stock, round and flat fresco brushes, artist's flat and round, grainers, blenders, overgrainers, varnish brushes, mottlers, lackering brushes, hair pencils, camel hair dust-ers, camel hair artists' brushes, swan quill pencils, ox hair lettering pencils, sable lettering, red sable, etc.

The line of coarse goods representing shoe brushes, scrub, chimney, bottle, counter, carpet, floor, crumb, window, furniture, lye, horse brushes, cane brooms, molders, etc.

HOW BRUSHES ARE MADE.

The cutting and shaping of the wood backs, handles, etc., of the kind of material in the hands of the wood working machinery is simple and rapid. The holes are bored and the glueing is done by hand.

The assorting, selecting and preparing of the bristles and hair, cleaning and straightening them, the apportioning of each amount

for each purpose is all done by hand, as is the pulling of the hair and bristles into the cavities in wood or other material.

In making a solid back brush the holes for the number of rows are bored lengthwise, then the holes for the bristles, a fine copper wire is run in and caught up by a hook, a loop tied around the center of the portion of the bristle, drawn in and again caught up and a portion drawn down to place.

Trimming, glueing, smoothing, polishing, inspecting, packing, and they are ready for market, each of kind, character, quality, etc.—*Journal of Commerce.*

Interesting Scraps.

When a man is too busy to laugh he needs a vacation.

Noble in appearance, but this is mere outside; many noble born are base.

You may take the greatest trouble, and by turning it around find joys on the other side.

Life often seems like a long shipwreck, of which the debris are friendship, glory and love; the shores of existence are strewn with them.

Ural means "girdle mountains," and is Turkish.

Madrid means a little forest, being the same as materita, the diminutive of materia, which is Spanish for lumber.

Lebanon means the white mountain, the name being suggested by the prevalence of snow, as is the case with the New Hampshire range.

Ethiopia is Greek, the first part of the word meaning to burn and the latter the face. Ethiopia, therefore, is the land where men have burned or dark faces.

It was the Romans who applied the name Africa—which means the land of the Afri about Carthage—to the entire continent which had previously been called Lybia, with the exception of Egypt.

Tasmania, the official name adopted in 1855 for Van Dieman's Land, is named after Tasman, the Dutch navigator, who discovered the island on November 25, 1642, and named it after Van Dieman, his immediate chief, by whose order he undertook the voyage.

The name "blue laws" was originally applied to the code drawn up in 1650 for Connecticut. It was given them in derision of their strictness. The word was also applied, as it often is now, to Presbyterians, perhaps because of the blue mantle spread over the preaching tab some of the ministers used.

Physicians who know the value of Shallenberger's Pills prescribe them as their own remedy. This is hardly fair, but is strong testimony in favor of the medicine. In one year a wholesale druggist in Baltimore sent to the proprietors of the medicine three gross of empty bottles. The pills had all been used by one physician in that city. Nearly as many more by a doctor in Richmond, Va.

The Normal Department of Mt. Carroll (Ill.) Seminary gives tuition and books free to one student from each county.

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Topeka, Kansas.

The President has concluded to accept the second invitation of St. Louis, and will visit that city in October. It is expected that he will extend his journey much farther.

The management of the Indiana State Fair is putting forth effective efforts to make a grand showing this year. It will be held at Indianapolis, commencing September 19.

Invitations are pouring in, asking the President to extend his Western trip. Topeka is among the number of aspiring cities which would be pleased to receive and entertain the Chief Magistrate.

We are in receipt of a little box containing some choice specimens of Wild Goose plums. The box was marked "From Mt. Arbor Nursery, Shenandoah, Iowa." The sender has our thanks.

Farmers in some localities have cut up their corn in order to save what was left, the heat and dryness having stopped growth, as they believed. This is not at all general, however, not even in the localities reported. The damaging effects of the weather being confined to small areas.

The Live Stock Sanitary Board have been requested to appoint cattle inspectors at several points on the southern line of the State, but there is no fund provided for the payment of such officers this year. One inspector was appointed for Coffeyville, but he will be paid by the cattlemen themselves.

In a delegate convention of eighty colored men at Hutchinson last week, the report of a committee on industry showed that there were 167,000 acres of land owned by colored persons in southwest Kansas, valued with the city property at \$2,190,000. The committee on the political situation recommends a thorough organization of the colored people.

A correspondent in one of our exchanges says: I saw a few days ago, on the farm of Richard French, in Pottawatomie county, a strip of timothy that was looking fine, and was growing on prairie sod, seemingly holding its own even there. On a farm belonging to John Straub, in the same county, are several large pieces of blue grass that are there to stay. Mr. Straub says he has no account of how it ever came there. It is growing on raw prairie.

The Missouri Pacific railroad company carried some nine hundred Texas cattle into Washington county, this State, in April last, and a large number of native cattle have been lost by reason of fever taken from the Southern cattle. The company took a bond of \$5,000 from the owner of the cattle before shipping them, as security that they were not diseased. But the sequel shows that they were diseased, and the company will be held responsible in court for all the damages done.

THE STATE FAIR.

It is very important that the Kansas State Fair this year be a grand success. Since our last State Fair a quarter million new people have come among us and fifteen new counties have been settled and organized. These new Kansans need an opportunity to show to the world what the Great American Desert will do when operated by genuine Yankees. Western Kansas to-day is no more like it was two years ago than eastern Kansas is like it was twenty-five years ago. A million acres of land raw then are now covered with corn waving like shadows in the sunshine. Every live man in other parts of the State wants to see samples of crops raised out there, and friends of the new settlers want a report which the eye can see and the fingers touch. And the world of civilized men is interested in Kansas crops. In 1860 we had a dry year out here, and we had grasshoppers, and we had—nothing else worth crowing over. People far away sent us old clothes and beans, and they said hard things about Kansas. Stories travel fast and they descend by tradition to coming generations. It has been called "drouthy Kansas" and "grasshopper Kansas" ever since, notwithstanding we have been able any year in the last twenty to feed five times as many people as we have within our own boundaries. And they still talk about us and say we can't raise anything, notwithstanding the fact that in Topeka we have eleven flouring mills grinding Kansas wheat, and there are other mills in almost every township in the State.

But the country has been dry the past two years, and Kansas must show that her farmers raise wheat and corn and cattle and fruit, and all other kinds of farm produce in dry years as well as in wet years. Every county in the State ought to be represented at the State Fair by at least a few samples of products. All the farmers cannot come up; but they can get together and select one of their number to take up a few specimens of what is grown in that region. The managers are making extensive preparations. They are putting up new and commodious buildings, and have secured the use of an adjoining grove of some eighteen or twenty acres for the enjoyment of visitors. Two lines of street car track are now being laid to the grounds and the Santa Fe has a track into the grounds direct, so that there will be abundant facilities for getting there. Mr. Thomas, the Secretary, says he expects the best fair ever held in the West. He has correspondence from all parts of the State and from adjoining States. He says the exhibits in agriculture will be of an extraordinary character, while the stock departments will be filled as they never were before. Applications for space are coming in every day. The Kansas Wool-Growers and Sheep-Breeders' Association and Kansas State Poultry and Pet Stock Association will hold exhibitions in connection with the fair.

The American Jersey Cattle Club offers \$100 for the best herd of registered Jersey cattle, owned in Kansas, to consist of one bull and four females, the prize to be known as the American Jersey Cattle premium.

The American Percheron Horse Breeders' Association offers a grand gold medal, valued at \$100, to be awarded by the association to the best pure blood Percheron stallion bred in the State of Kansas. The medal to be made with suitable inscription and to be held by the Kansas State Fair Association subject to said award.

The American Clydesdale Association offers a medal of pure coin silver to the owner of the best recorded Clydesdale

stallion; also for the best recorded Clydesdale mare bred in Kansas and exhibited at the Kansas State Fair of 1887.

The premium list shows that about \$20,000 is offered in premiums.

The various railroads of the State will sell tickets at one fare for the round trip from all points along their lines to the State Fair. All stock and articles for exhibition will be carried to the State Fair on full payment of freight, and will be returned free to place of shipment on presentation of certificate to the Secretary of the State Fair, provided there has been no change of ownership and return be made within ten days.

The management is working industriously and resolutely to make the fair a success and we believe it will pay Kansas a hundred times over to show herself there, September 19 to 24.

ONE DOLLAR EVEN.

Among the first fruits of the new management of this paper may be mentioned a 33½ per cent. reduction in the price of yearly subscriptions. The KANSAS FARMER has been going at \$1.50 for 10, these many years. This week we mark it down to one dollar even, and it will stay there. It is intended to build up an immense circulation, and this is the first step, to be followed by others which will be announced from time to time as they are taken. We will be in condition pretty soon to advertise the paper, wherever it goes, as having improved at least 100 per cent., and when we get to that point we will expect our friends to help extend our circulation. In the meantime, this is notice.

Farmers need reliable journals published in their interest, conducted by men whose training and sympathies fit them for the work. Every man now connected with the paper is or was at one time engaged in practical farming, and they propose to put this paper among the foremost agricultural journals in the country, and at the very head of those published in the West. We wish at this time to put our friends in possession of these encouraging facts, so that wherever they can drop a little good seed in good ground they will do so. One dollar even.

Pleuro-Pneumonia.

A Washington dispatch under date July 29 says the Chief of the Bureau of Animal Industry has just made a preliminary report to the Commissioner of Agriculture in reference to the progress of the work for the suppression of pleuro-pneumonia for the six months ending June 30, 1887. He states that the act of Congress approved March 3, 1887, appropriating \$500,000 and giving authority to compensate for diseased and exposed animals, and also to quarantine and disinfect premises, has enabled the Bureau to accomplish very much more than had been possible previous to that time. The new rules and regulations made to conform with this act issued April 15 for co-operation with the various States, though assuming much more authority than the old ones, have been very favorably received and accepted by nearly all the States and Territories, Missouri being one of the few which have not accepted. Pennsylvania is the only State believed to be infected with pleuro-pneumonia, the authorities of which have declined both to accept the new rules and regulations and to give the national inspectors any recognition in their work. An investigation is recommended to determine the extent of the infection of Pennsylvania, and if this should prove sufficient to endanger the animals of other States, the cattle of Pennsylvania should be

placed in quarantine and prohibited from going into other States unless accompanied by a permit from an inspector of the Bureau of Animal Industries. The report gives complete statistics of herds examined and cattle slaughtered.

The Corn Crop in Kansas.

Estimates made a month ago as to the corn crop in this State will have to be revised. The acreage was largely increased, at least 25 per cent. over last year, and most of the increase is in the newer counties west. But there have been unfavorable influences in localities, and they have operated to lessen the average yield materially. It is too soon yet to estimate accurately. Our reports, September 1, will afford reliable data. The crop will then be made, and we can know just what it is.

Reports are varying and cannot be safely accepted as accurate now, because farmers are very busy, not getting about much over large territory, and weather has not been regular, so that within short distances different conditions exist. In one neighborhood, or in one township, everything may look well, while in the next it may be different. A report from either locality would not give a fair statement as to the whole region. We must wait a few weeks for complete returns.

It is interesting, however, in the meantime, to learn that the present prospect is regarded as good for a fair average yield of corn per acre, and that with the increased acreage, the aggregate yield will be much above that of any former year. The Kansas Farmers' Insurance Company publish reports from forty-one counties, many of them showing that corn is matured. The reports are in response to special inquiries. Most of those received up to date of publication are from the eastern counties, and they indicate that the yield will exceed the average. Our own advices are to the effect that in some places the yield will be enormous, in others fair, and in a few particular localities of small area, the crop will be very light. On the whole, we expect an average corn harvest.

Col. St. Clair, of Sumner county, refers to the "spotted" condition of corn in that county—some fields a "bright black green," he says, and others "burning up." He advances a theory as to the cause. He says the Arkansas valley is underlaid with water at a certain depth, but that in some places there are deposits of a hard clay—almost rock, so hard that drive wells will not penetrate it, and he believes that the poor corn is where that hard stratum lies between the water and the surface, preventing the rise of moisture. In ordinary years rain water is sufficient for all purposes. Sumner county does not often fail in any crop. But dry weather has been so long continued that the subsoil has little moisture in it, and the intervention of the hard stratum referred to prevents assistance from the water below.

Dr. Oyster, of Miami county, writing from Larned, Pawnee county, says: "I left Paola July 25, for this part of the State, for the purpose of collecting botanical specimens, and I have noticed the crops all along. The corn seemed to look better in Miami and the eastern part of Franklin counties than in any part of the country I travelled over. There is a good deal of late corn which is green, and if we have rains it will greatly help it. We had a rain at this place last night."

The boss boodler among the Chicago gang, McGarrigle, has found his way to Canada, and some of the others plead guilty.

The Brave of Earth.

Heroism is a crowning virtue. We hear of men renowned in war, men who directed armies while their soldiers did the fighting; we read of men who directed fleets in naval engagements; we are told of men who faced angry mobs and turned them aside. Names of such are they which embellish written history. They are carried forward to coming generations on wings of fame.

But there is an unwritten history. There are men who imperil their own lives to save those of strangers, and this almost at every turn of life. There are women who know not danger until it is past. These men and women who dare to do in times of peril are the world's heroes, though no record of their deeds be published for others to read. There is a time coming when they will stand first among the brave of earth. It must be so because in every heart judgment is rendered in their favor.

A few days ago fire was discovered in a tenement house in Chicago. Among incidents of the sequel, this is reported: The story of the attempted rescue of Mrs. Trugo and her babe, as described, is one of peculiar horror and pathos. The police and firemen had rescued her husband and four children, but she was neglected. Left with her two-year-old baby, the poor woman rushed to the window. A fireman saw her and he returned through the smoke to her chamber. All escape from the rear with such a burden as the woman and her child was impossible. He thought of a bed-cord, and tearing it out, bound the woman and child with it and pushed them through the window. He played out the rope until he was ready to fall to the floor from the heat, when he fled, after tying the rope to the bedpost. He was far from accomplishing his purpose, as his rope was too short and the woman and child instead of dropping to the ground or within reach of those below, he had suspended them in front of the first floor window, from which the fire poured as from a furnace door. She swung ten or twelve feet from the ground, shrieking and struggling as the fire swept off her garments, choked and actually broiled her alive. The singular fact is that the flames left the rope intact. It became a necessity if not to save the woman to cut her down. This duty was assumed by Captain Wm. H. Cowan, of truck No. 8, who chose to chance the fate which awaited his efforts. Seizing an ax and ladder he threw it up to the window and stood on its blazing rung. He deliberately entered the flames, and as they encircled him he struck at the rope. He could not see and struck with inaccurate aim. Once, twice, as his clothes fell from him, he struck in vain. At the third stroke the blade cut the rope. Simultaneously the burning ladder broke and the three blazing humans fell to the ground. The baby was dead, the mother dying a few minutes later, and the Captain is thought to be in his death agonies.

About the Weather.

It is a common subject—very common, but very interesting, at times, and this is one of the times. Heat has been excessive most of the time the last month in the middle half of the country. In Chicago more than a hundred cases of sunstroke occurred in a single day. At Kansas City the mercury has been above 100 degrees in the shade several times—103 last Friday, and in Topeka and Omaha it has been as high. The heat extended north and south wholly across the country. Usually the most trying weather is in August when the earth, responsive to the air, is dry and warm. Then the moving air reminds one of the temperature in a

"clearing" when brush and chunks are being burned in the hottest days of the year. Heat has been so intense that the air seems to be wholly devoid of moisture, it is warm, very warm and dry.

Looking for reasons why conditions are that way, it is brought to mind that there has been a long period—nearly two years—of generally dry weather. A good deal of rain fell, but not all over the land—only in spots. In all the West and Southwest, last summer, fall, winter and spring were, on the whole, dry. The earth has become dry down in the subsoil. There have been no moist exhalations in a long time. And it has continued up to this time. A good deal of rain has fallen this summer, but it has been spotted, and in April weather was very dry. Oats in many places in all the Western States did not grow more than a foot high, and in many other places it was not worth cutting. Still, a great deal of oats was cut, and some of it was good. So it was with wheat. At seed time, the ground was not moist deep, the winter was dry, spring was dry, and many wheat fields were plowed up and seeded with corn. Still a great deal of wheat was cut. In Montgomery and some others of our southern counties in Kansas, wheat never was better, yet even there, it was spotted.

But the heat and its effects have been peculiar. Reports from Illinois, Wisconsin, Iowa, Nebraska, are alike. An Iowa man was in this office a few days ago and spoke of the heat and dryness in many parts of that State. A dispatch from Nebraska City, Neb., dated July 29, stated: "At 2 p. m. to-day the thermometer registered 110 degrees, with scorching hot winds from the South. A number of persons were overcome by the heat, but not fatally. Reports from Otto county, in southern Nebraska, say nearly all the creeks, wells and cisterns are dried up, and that stock is suffering for water. In some localities the corn is dried up and ruined. The people here are praying for rain." The same day news came in from various parts of Kansas telling of "glorious rains" in some places and cutting up corn in others. One neighborhood is in good condition while another is scorched. Taking the country over it is unusually warm, and the heat is telling sorely on the crops.

Invitation to the President.

When big folks are invited to "come and see us," the invitation costs money and time, and patience. A delegation of Kansas City people waited on President Cleveland, a few days ago, to invite him to visit their city when he comes West in the fall. Here is a brief description of the book containing the invitation. It is a large volume, handsomely bound in sealskin, and bearing on a white panel inserted in the cover:

KANSAS CITY
TO
PRESIDENT AND MRS. CLEVELAND,
GREETING.
1887.

The first six leaves contain six allegorical figures, in water colors, illustrating the resources of Kansas City and the States of Kansas, Missouri, Texas, Colorado, and Indian Territory. Kansas City is represented by a winged female figure sitting on a hemisphere on which are the outlines of the States named, of which Kansas City is the gateway. The second sketch, Kansas, is a figure bearing a sheaf of wheat and carrying in her hand a sunflower. Missouri is represented by a maiden seated on some sheaves of garnered wheat. At the feet of the figure is a cornucopia from which vegetables and cereals have fallen. Some chimneys in the distance recall Missouri's manufacturing re-

sources. Vulcan fittingly illustrates the mineral resources of Colorado. The last conception of the artist is his happiest. It is an Indian maiden just awakened from sleep. Out of the mists surrounding her comes the Spirit of Progress bearing a wreath and whispering to her a promise of what the future has in store when she (the Indian Territory) shall be a State. Then follow the signatures of about twenty thousand persons.

Notice to Railroad Companies.

The Live Stock Sanitary Commission held a meeting a few days ago to consider the matter of railway companies carrying Southern cattle in Kansas, and after conferring with the Board of Railroad Commissioners, prepared a letter to be forwarded to the different companies in the State. The letter is as follows:

WHEREAS, The Union Pacific railroad company did on or about the 2d day of April, 1887, deliver at Greenleaf, Washington county, Kansas, some 900 head of cattle coming from south of the thirty-seventh parallel of north latitude; and

WHEREAS, The cattle have communicated the Texas splenic or Spanish fever to a large number of the native cattle thereby entailing heavy losses on the citizens of the State, and

WHEREAS, The bringing into this State of the said cattle was a violation of chapter 191, section laws of 1885, section 1 of which provides that any person violating any provisions of this act shall upon conviction thereof be adjudged guilty of a misdemeanor, and shall for each offense be fined not less than \$100 and not more than \$2,000, or be imprisoned in county jail not less than thirty days, nor more than one year, or by both such fine and imprisonment.

Now, Therefore your attention is hereby respectfully called to all of the provisions of this law (a copy of which is herewith enclosed) and you are requested to issue to your agents and employes such instructions as will prevent the introduction to the State over the lines of your road all cattle which are prohibited by the said law from entering the State.

Kansas Continues to Grow.

The State Board of Equalization fixed the rates of levy for State purposes last week, when the county valuations were equalized. The new assessment includes all personal and railroad property, an assessment of real estate being made only once in two years. The total valuation of property in the State, as equalized by the board, is \$310,596,686.64, which is an increase of \$33,483,363.30 over last year. The following figures show the valuation of property for the past three years:

1885.....	\$248,864,811.28
1886.....	277,113,323.34
1887.....	310,596,686.64

The total tax levy of this year for State purposes amounts to \$1,273,446.31. The rate of taxation this year is 4 1-10 mills, which is the same as last year. For the past two years the tax levy has been less than for many years.

The valuation of the wealthiest ten counties is as follows:

Sedgwick.....	\$12,282,152.85
Shawnee.....	11,926,647.25
Leavenworth.....	8,793,976.71
Sumner.....	7,822,605.56
Lyon.....	7,513,903.80
Wyandotte.....	6,908,317.95
Cowley.....	6,045,064.78
Bourbon.....	5,838,591.75
Reno.....	5,413,886.84
Douglas.....	5,056,415.31

The following is the total valuation of all property in the leading cities:

Wichita.....	\$8,449,063.89
Topeka.....	7,270,016.91
Leavenworth.....	5,254,286.03
Atchison.....	2,024,722.77
Emporia.....	2,442,173.25
Lawrence.....	1,878,314.26
Fort Scott.....	1,779,904.41
Hutchinson.....	1,715,080.99
Ottawa.....	1,160,235.15
Newton.....	1,022,588.65
Wellington.....	1,054,204.39
Salina.....	995,732.47
Winfield.....	992,568.31
Parsons.....	934,258.50
Arkansas City.....	887,677.21
Garden City.....	841,123.60
McPherson.....	715,193.74
Abilene.....	711,149.30
Clay Center.....	707,315.22
Junction City.....	656,459.96
Dodge City.....	635,819.40

Reading, Pa., on the night of July 26, was visited by the most destructive storm ever known there. A great deal of damage was done.

Kansas Fairs.

Anderson county—Garnett, August 30 to September 2.
Bourbon—Fort Scott, October 4-7.
Brown—Hiawatha, October 4-7.
Cheyenne—Wano, September 14-16.
Cloud—Concordia, August 31 to September 3.
Coffey—Burlington, September 12-16.
Cowley—Winfield, September 5-9.
Crawford—Girard, October 4-7.
Davis—Junction City, September 20-22.
Edwards—Kinsley, September 27-30.
Elk—Howard, September 22-24.
Ellis—Hays City, September 20-23.
Franklin—Ottawa, September 27 to October 1.
Graham—Hill City, Sept. 29 to October 1.
Harvey—Newton, September 28-30.
Jefferson—Oskaloosa, September 13-16.
Jefferson—Nortonville, September 28-30.
Jewell—Mankato, September 27-30.
Lincoln—Lincoln, September 21-24.
Linn—LaCygne, September 5-9.
Linn—Pleasanton, September 13-16.
Linn—Mound City, September 19-23.
Marion—Peabody, September 14-18.
Mitchell—Cawker City, September 6-9.
Montgomery—Independence, September 6-10.
Morris—Council Grove, September 13-16.
Nemaha—Sabetha, September 20-23.
Nemaha—Seneca, September 6-9.
Osage—Burlingame, September 27-30.
Osborne—Osborne, September 14-17.
Ottawa—Minneapolis, September 13-16.
Phillips—Phillipsburg, September 27-30.
Pottawatomie—St. Marys, October 4-7.
Pratt—Pratt, October 11-13.
Rice—Lyons, October 10-13.
Riley—Manhattan, September 13-16.
Rooks—Plainville, September 27-30.
Rush—LaCrosse, September 13-15.
Saline—Salina, September 7-9.
Sedgwick—Wichita, September 12-16.
Sumner—Wellington, August 30 to Sept. 2.
Washington—Washington, September 12-16.
Washington—Greenleaf, September 21-23.

STATE AND DISTRICT FAIRS.

Kansas State Fair—Topeka, September 19-24.
Western National Fair—Lawrence, September 5-10.
Nebraska State Fair—Lincoln, September 9-16.
Kansas City Fat Stock Show—October 27 to November 3.
Missouri State Fair—Sedalia, August 15-20.
St. Louis Fair—St. Louis, October 3-8.
St. Joseph Inter-State Fair—St. Joseph, September 12-17.

St. Louis Wool Market.

Reported by Hagley & Wilhelm.

Our wool market continues active and firm with heavy demand from Western manufacturers and all receipts meet quick sale on arrival for spot cash. The Liverpool, England, auction sales now in progress show prices lower than their May series and bidding lacks animation. Stocks for the London sales opening in September are already much heavier than anticipated and are daily increasing.

Other foreign markets show heavy stocks offering and buyers backward, hoping for still further declines. Eastern markets continue quiet and depressed under the stringency of their money markets and are not equal to ours in prices.

Receipts here for week, 583,208 pounds. Receipts since January 1, 11,871,692 pounds. Shipments this week, 802,569 pounds.

SALES.

Dark, heavy, earthy, mixed grades, unclassified, 12 to 19 cents per pound all around. Bright wools of light shrinkage, classified, are in urgent manufacturing and speculative demand at the following prices:

KANSAS AND NEBRASKA.

Choice $\frac{1}{2}$ and $\frac{3}{4}$ -blood.....	23a25
Medium.....	21a23
Fine medium.....	20a23
Low medium.....	19a21
Light fine.....	20a22
Heavy fine.....	18a20
Bucks and heavy Merino.....	12a16
Carpet.....	13a16
Common.....	15a18
Pulled.....	18a16
Sheep pelts, fallen stock.....	10a14
Burry wools, 2 to 5 cents per pound less.	

Mr. Swann on Wheat-Growing.

We have another letter from Mr. Swann, in which he extends the line of thought presented in his letter published last week. The part of his letter which is of special interest is contained in this extract:

"But, on the other hand, if farmers will only clear their wheat land of all refuse by mowing and raking, and harrow and drill without stirring up, then but little moisture will be required to grow the wheat plants; and if dry, as many are claiming, the wheat will be made by the time other crops begin to suffer. Therefore, if a dry season is to be our lot, we would have some wheat against nothing."

Arboriculture.

AMERICAN FORESTRY.

Paper read at the meeting of the American Nurserymen's Association, Chicago, June 15-17, 1887, by Robert Douglas, Waukegan, Ill.

American forestry is yet in its infancy and has no written history; therefore I am requested to give my own experience and observations. The subject of forestry never entered my thoughts until the summer of 1850, while reading Andrew Jackson Downing's work on Landscape Gardening and Ornamental Trees, a work just published at that time. Referring to the European larch, he mentioned the Duke of Athol's plantations in Scotland, and concluded by saying: "Although nothing has been done in this country in the way of planting trees for timber, yet the time will surely come when they must be planted."

It is not probable that I would have given this quotation more than a passing thought, had it not been that I had made a long journey westward the year previous, and after passing through a forest belt about three miles in width on the western shore of Lake Michigan, all the timber I traveled through in the next two thousand miles, if placed together, would fall far short of making another three mile belt. Consequently, I came to the conclusion that the time had already come when they should be planted. I read every work I could procure published in English, touching on European forestry; elaborate accounts of the Duke of Athol's larch plantations, the planting of the Culbin lands in Scotland; Bremondier's planting on the coasts of France, etc. I imported seeds of *Pinus Maritima* with which to imitate Bremondier, larch and Scotch pine seeds in imitation of the Duke of Athol, John Grigor, and others. I tested the European methods of moor planting, and planting on unplowed lands, on a very extensive scale, after having purchased a large plot of barren land on which to carry out these experiments, and, judging from their accounts, I succeeded as well as they did.

GROWING SEEDLINGS IN FORESTS.

I also experimented on a very large scale, in imitation of their methods of growing coniferous seedlings in open glades in the forest, and in this I succeeded perfectly, if it can be called a success where nothing is gained. We can grow better coniferous seedlings in two years in the nursery, than can be grown in three years in openings in the forest. In Europe, where manual labor is cheaper than horse labor, and where time is apparently of no consequence when applied to the growing of forests, probably the growing of seedlings in the forest is the cheaper way. Their methods of planting trees in unprepared lands is well worthy of imitation in many parts of this country, especially in New England, and wherever there are broken and waste lands, which can not be brought under the plow; but on our Western prairies it is entirely out of the question. Trees can not be made to grow planted in prairie sod, and when the sod is subdued, prairie weeds will grow many feet higher than the trees, if the land is not cultivated; and if they live through the first season, the second and third seasons will assuredly destroy them.

During all these years, occupied in making the experiments alluded to, I kept on reading everything I could procure touching upon European forestry, and found that these foresters differed in opinion very much as we do here. The more I experimented, the more I became convinced that a system of forestry must be adopted better adapted

to the climate and the immediate wants of this country; that the European modes of planting trees on unprepared lands for the benefit of the next generation, and the next, while very good in isolated cases, is altogether too slow for this country, in a general way. Therefore I determined on purchasing a tract of land on a Western prairie, and planting a forest, to see how cheaply and expeditiously it could be planted and grown.

I incidentally mentioned my plans to a gentleman who took a deep interest in forestry. He said that if I had faith in forestry as an investment, he presumed I would be willing to take a section of prairie and plant a forest, taking all the responsibility, and take pay for it when I delivered it to the contracting party in a condition to take care of itself without further care or cultivation, and if so, to draw up a contract. I did so, stipulating that we should be paid the actual cost of preparing the prairie after it had been broken, and less than the amount at which we were selling the trees in the nursery, to be paid after the trees had been planted, all else to run until the time we delivered the plantations on the contract, after the trees had reached a height of five to six feet, and were shading the ground so as to need no further cultivation.

METHODS ADOPTED.

After experimenting in different ways, we have adopted the following mode:

Break the prairie in June, or at the time the grass is in the most thrifty state of growth. Break quite shallow, not deeper than two, or at most, three inches, as the greater the amount of succulent growth and the shallower the breaking, the more surely will the sod be killed in the summer. Late in August, and during September of the same year, we turn the sod over lengthwise of the furrow, and deep enough to bury the sod and leave two or three inches of earth over the entire surface. If it is not designed to plant in the autumn, we leave the ground in this condition until the following spring, when the harrow and roller will put the land in excellent condition for planting. If for fall planting, we have the small tree-digger run under the seedlings, gauged so as to cut the roots to the proper length for planting, and while the teams are turning the sod and preparing the land for planting, the workmen are pulling the trees, and assorting and tying them in bundles ready for the planters.

Before the planting is commenced, the harrow and roller are run over the land, and after that the marker, marking off the ground four feet each way, the same as for corn. The workmen are then divided off into companies of three each, or two men and one boy, the two men with spades, the boy with a bundle of trees. The two men with spades plant on adjoining rows, the tree-holder standing between them. The planter strikes his spade vertically into the ground on the running line, close up to the cross mark, then raises a spadeful of earth, the boy inserts the tree, the earth is replaced, the planter places his foot close up to the stem of the tree—bearing on his full weight—and passes on to the next mark. This tightening of the tree is the most essential part of the work. The boy is kept quite busy attending two planters. After a little experience the boy will learn to bring each tree out of his bundle, with a circular upward motion, that will spread out the roots when placed in the ground about as evenly as they could be placed with the hand. The three persons will plant at least 4,500 trees in a ten-hour day.

When we consider that by this method the trees are planted in a straight line,

at the proper depth, the roots spread out, and the earth firmly packed over them, we think it much better than any other method. Dr. Warder named this the "Douglas three-motion system," as three motions of the spade are required in planting each tree.

When a great number of men are employed, time is saved by having a man follow in the rear, handing the bundle of trees to the tree-holder. We found that one man could attend thirty to sixty workmen. He would follow with a wagon load of trees close in the rear, and whenever he saw a boy on his last dozen he would throw him a bundle, the boy would put it under his arm, and use it after he had disposed of the few in his hand. We use a two-horse walking cultivator among the trees during the summer, and the cultivation is just as simple as for corn. Working up the earth to and from the trees alternately, we use no hoes, as careless workmen will injure a great many trees with this instrument, while horses will rarely injure a tree, and they can be worked so close to the trees that a weed rarely needs to be pulled by hand.

These trees made a very satisfactory growth, and far exceeded our expectations. We had contracted to deliver 2,000 trees of the required height on each acre; we actually delivered over 2,500. One of our main objects in planting these forests was to let people see that forest-planting is a very simple affair, and could be accomplished by the most ordinary workmen. And in this we certainly succeeded, for, so far as I am aware, we did not have a man employed who had ever spent a day in planting trees, except a few men who had planted for the railroad company, and we had more trouble with them than with the rest. They had planted 300 trees per day per man, while we planted 1,500 trees for every man and boy employed planting. Each three planted their 4,500 trees with ease, and I did not notice that one planted any better than another, and certainly not quicker than another, as each man and boy held his place in the row. If a new man came, whether from the farm, the coal pits, or the corner grocery, he would keep his place in the row, and plant just as well as the rest. During the time we were planting these forests we had a very long drouth one summer, proving serious to the farm crops, yet our trees were not seriously checked in growth. Another year a hail storm ruined a large corn field adjoining the plantation, cut the leaves from off our trees, bruising the bark on the trunks so the marks showed for over a year, yet it did no permanent injury.

In further proof of my assertion, that forest-planting is a simple affair, I will say that in the spring of 1885 Mr. W. E. Campbell, of New Kiowa, Barber county, Kas., wrote us to send trees to plant about eighty acres of land, and men to plant them. I wrote him that if men could be had in that locality it would save him the cost of transportation, and we would send a man to superintend the work. Mr. Campbell's land adjoins the Indian Territory, about the 99th meridian. I sent out a man who had worked in our Farlington plantations. He reached there early in March. About the time the carload of trees arrived, Mr. Campbell had been unexpectedly called away; the cabin was not built, he had to sleep on the prairie, and for workmen he had to employ Oklahoma boomers who were then besieging the Indian Territory. They considered themselves an army of martyrs, and from our foreman's account they were not a community of saints; yet they did the work to the complete satisfaction of Mr. Campbell and ourselves. I give these facts to show that we have the

men around us to do the work, without depending on foreign immigration. So that an American land-owner, even if he should have the audacity to attempt to teach his own and his neighbor's boys, will not stand in fear of the "walking delegate."

Mr. Campbell's is a mixed plantation, and he writes us that all kinds are doing well. This gives an opportunity to test several kinds of trees at a point further west than it was feared trees could be made to grow, even a very few years ago.

TREE-PLANTING IN KANSAS.

Kansas is comparatively a new State, and when we take into consideration that the first settlers in our prairie States always settle near the timber, we see by the immense number of trees her citizens have already planted, that in a few years she will surprise some of our writers, who are deploring the apathy of the people. Indeed, I think that many writers who are warning the people of this impending danger of forest denudation, are not aware of what is being done in that direction. I judge this is the case from articles I see greedily copied, of what is being done in Europe, compared with the little that is being done here. Two or three years ago a statement was published, giving the actual number of forest trees that had been planted that year in England, Scotland, Ireland and Wales. I was surprised to see that in the aggregate they did not reach three and one-fourth millions, just about the number they would plant on 1,000 acres, and yet what we are doing in this country is looked upon with contempt. Surely these editors and essayists either can not find time, or will not take the trouble to inquire about what is being done in their own country. They can not be aware that the State of Kansas alone, since she commenced this new industry, has planted 147,340 acres. Think of it! Great Britain and Ireland, 1,000 acres in one year. The State of Kansas, a new State, peopled by families who went out within the past few years to work a living out of raw prairies, have planted 147,340 acres!

"But," says some of our forestry friends, "What does it amount to?" "They are planting worthless trees." Let us see about that: 11,500 acres of black walnut, 12,486 acres of maples, 2,637 acres of honey locust, 55,553 acres of cottonwood, 65,771 acres of other varieties. Admitting that the cottonwood does not rank among the most valuable woods, it is a God-send to the new settlers, as it makes fuel in less time than any other tree. (In this tree, we see history repeating itself; in ancient Rome, the genus poplar derived its name from being the people's tree.) Some writers—not planters—recommend mixing the cottonwood with other trees, to be cut out for fuel in the future. But as far as I have seen, the practical farmer knows better. To him it would seem like turning a drove of Texas steers into a herd of Jerseys.

Wonderful as this showing is, Kansas falls far short of Nebraska. If an accurate account could be had of the trees planted in Nebraska, it would beat Kansas two to one. Now include all the Western States and Territories, with the far from inconsiderable quantities planted in the Eastern States, and how long will it be before there are more forest trees planted in these United States than in the whole of Europe?

(Continued next week.)

Stewart's Healing Cream, for chapped hands, face, or gentlemen to use after shaving. The cheapest and best article for the purpose in the world. Please try it. Only 15 cents a bottle at drug stores.

Regular subscription price of the KANSAS FARMER is now \$1 a year, within reach of all.

The Poultry Yard.

Prevention of Chicken Cholera.

H. B. Geer, in the *Southern Cultivator*, says: "In July, August and September dead grown chickens are met with everywhere, under the roosts, about the fence corners, and in the alleys. At this season of the year that dread scourge of the poultry yard, chicken cholera, stalks abroad and its victims are legion.

"But why come in the autumn rather than at any other season of the year? Because then it is that our birds are all run down after laying and hatching season, their natural vitality is at a minimum, the heat is intense, lice are numerous, water frequently is foul, and they are beginning to moult, which latter ordeal of itself generally finishes the oldest and most feeble. The stench that pervades some chicken-houses of a hot summer night would kill a human being to inhale it one week. Then why subject the fowls to such unhealthy conditions and expect them to remain strong and vigorous? Ventilate that old hen-house. Knock off the planks at the top of the sides; you can nail them on again in the late fall. Lattice it up and leave plenty of ventilation. Let the air pass through it like a sieve. All the chickens want in the way of a house at night in the summer time is a shelter from the rain. Clean it out thoroughly and loosen up the earth in the bottom of it. Whitewash it thoroughly inside and out. Wash the roosting perches with copperas water (green vitriol) and throw fresh lime underneath them. Don't stop with the first efforts but make it a rule to renovate once a week, carrying out the droppings, washing the perches and sprinkling the lime about.

"See to it that the fowls have a good place to wallow. Without their dust bath the poor things will be overrun with lice. The dust to them is what water is to us. It cleanses and invigorates them and improves their plumage. Give them plenty of pure fresh water. This matter must not be neglected at this season of the year. Through their drinking water we may possess the power to stay their arch enemy, cholera. Mix and keep on hand a solution as follows: Dissolve in two gallons of water half a pound of sulphate of iron and one ounce of sulphuric acid; add this to their drinking water of a morning in proportion of a teaspoonful to each pint of water. This may be given three times a week for the next three months with most excellent results. If, however, any of the birds show any indications of dysentery, omit the solution for a time and put a little sulphate of copper (blue stone) in the water—just enough to turn the latter slightly blue. This remedy has never failed to check up and set right our chickens whenever they exhibited any signs of dysentery or cholera. Keep plenty of fresh lime about, and give the fowls access to green food, and then you need have no fears of chicken cholera."

Poultry Notes.

Give your hens a variety of food; a change will be found beneficial.

Do not feed raw corn meal dough to a sick fowl. Let it be steamed or scalded.

Of this there can be no doubt: Fowls do better if not kept in the same yard area perpetually.

It is said that epicures prize the poultry that has had a good feeding of roasted corn and celery for a few days before killing. For laying fowls corn treated in the way mentioned is a wel-

come change of diet. Let these things be tried.

It is an evident truth that fowls for market should be in prime condition and neatly dressed.

Raw onions chopped fine and mixed with food twice a week is recommended as better than a dozen cures for chicken cholera.

As sunflower seed is liable to heat, the safest way of keeping it for fowls is to cut off the flower head when the seed is ripe, and pile it loosely till thrown to the fowls.

When a contagious disease breaks out in a flock of fowls it is better to destroy them all rather than have the disease get "rooted" on the farm, as the germs may remain for years.

For soft-shell eggs, put the hens at work scratching, as it indicates that they are too fat. Soft eggs, apoplexy, egg-bound, and nearly all such diseases, are due to the hens being too fat.

Eggs may be dried and made to retain their goodness for a long time, or the shell may be varnished, which excludes the air, when, if kept at a proper temperature, they may be kept good for years.

One poultry raiser protects his hens from lice by suspending over each hen a small bag of thin muslin filled with flour of sulphur, so that the hen will knock it in getting on and off the nest, or it may be occasionally shaken over her.

The symptoms of cholera are given as sudden and violent diarrhea, greenish droppings which become thin and whitish, extreme weakness and a nervous anxious look about the face. Death ensues in about twelve to thirty-six hours.

The next boom in poultry, "they say," is to be in the white breeds. Four new candidates for favor are named: Wyandotte, Plymouth Rock, Langshan and Minorca. There are many other breeds, among which Dorking ranks high as a table fowl.

Practically an egg is animal food, and yet there is none of the disagreeable work of the butcher necessary to obtain it. Be it animal or vegetable, the vegetarians of England use eggs freely, and many of these men are eighty and ninety years old, and have been remarkably free from illness.

To prevent chickens treading upon their food or crowding upon each other when feeding, the food might be put in a small box with barred sides like a plate rack. The bars may be placed so close together that the hen or large chickens cannot get their heads through to rob little chicks of their food. Boxes with the bars wider apart can be used for larger fowl.

The only sure way to clean out a nest should the contents become soiled, is to carry the box outside, burn the hay, and then dip a sponge in kerosene and apply a lighted match to the box, first rubbing it over with the sponge. The oil will burn for a few moments over the box and then cease. If there are any lice they will have but a poor chance. If an egg is broken in the nest the result is usually lice, unless the nest is at once cleaned, and the best mode is to begin anew with the box very clean and fresh-cut hay put in.

Nesting boxes should be made and fastened to the side of the walls of the coops, and should be large enough to admit of two compartments, one for the young of the first nest and the other nest for the hen to lay her second set of eggs. The partition between them should be high enough to prevent the young from getting over into where the hen is sitting. This partition should

have a strip about four or five inches wide nailed over the top of the partition, to answer as an alighting place for them to stand with comfort. It should extend out through the entrance far enough to answer as an alighting step.



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The Syracuse Nurseries offer for the fall of 1887, a large and unusually choice stock of Standard Apples, Standard, Half Standard and Dwarf Pears, Peaches, Plums, Cherries and Quinces. Also a full line of other Nursery Stock both Fruit and Ornamental, Shrubs and Roses. With an experience of nearly half a century, soil especially adapted to the growth of trees, and growing only for the trade we can offer special inducements to Nurserymen and Dealers, and solicit their correspondence or a personal examination of our stock before making contracts for fall.

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Box 25, LACYGNE, LINN CO., KANSAS.

THE MARKETS.

By Telegraph, August 1, 1887.

LIVE STOCK MARKETS.

St. Louis.

CATTLE—Receipts 4,400, shipments 1,200. Market easier. Fair to choice steers 3 95a 20, butchers steers 3 30a 90, fair to good feeders 3 00a 70, fair to good stockers 2 00a 27 1/2, common grass to good corn-fed Texans and Indians 2 00a 70.

HOGS—Receipts 1,800, shipments 800. Market strong. Choice heavy and butchers selections 5 30a 45, packing and yorkers 5 00a 25, common to good pigs 4 20a 00.

SHEEP—Receipts 2,600, shipments 2,400. Fair to choice clipped 2 00a 00, lambs 3 60a 75.

Chicago.

The Drovers' Journal reports:

CATTLE—Receipts 12,000, shipments Market 10a15c lower for common natives. Shipping steers, 3 45a 20; stockers and feeders, 1 50a 20; cows, bulls and mixed, 1 25a 20; Texas cattle, 1 50a 10.

HOGS—Receipts 13,000, shipments 4,000. Market steady. Rough and mixed 5 00a 30, packing and shipping 5 20a 45, light 5 00a 45, skips 3 00a 00.

SHEEP—Receipts 4,000, shipments 400. Market slow and steady. Natives 3 50a 90, Texans 2 50a 50, lambs 4 00a 50 per 100 lbs.

Kansas City.

Received from 5 p. m. Saturday to 12 m. today, 1,541 cattle, 5,171 hogs and 124 sheep. Held over, 227 cattle, 4,312 hogs and 830 sheep. Total, 1,768 cattle, 10,483 hogs and 954 sheep.

CATTLE—Shipping steers 4 00, butchers steers 2 85a 30.

HOGS—The most notable feature of the market to-day was the over-supply of common, rough, half-fat and light hogs. The dry weather is apparently having the effect of sending in half-fat stock. Range for mixed 4 65, sorted 5 00a 30.

SHEEP—Medium fleshed 88 to 90 lb. muttons sold last Monday pretty freely at 3 25, and the same kind were dull to-day at 2 75, which is about the decline on muttons at all the leading markets, owing to a general glut last week.

PRODUCE MARKETS.

New York.

WHEAT—No. 2 red, 78 1/2a 78 1/2c elevator, 80 1/2a 80 1/2c delivered.

CORN—No. 2, 45 1/2c elevator.

St. Louis.

WHEAT—Higher. No. 2 red, cash, 69 1/2c.

CORN—Higher. Cash, 35c.

OATS—Finner. Cash, 22 1/2c.

RYE—Dull at 43c.

Chicago.

Cash quotations were as follows:

WHEAT—No. 2 spring, 68 1/2c; No. 3 spring, nominal; No. 2 red, 71c.

CORN—No. 2, 39a 39 1/2c.

OATS—No. 2, 24 1/2a 24 1/2c.

RYE—No. 2, 44c.

Kansas City.

WHEAT—No. 2 soft winter, cash, no bids nor offerings. No. 2 red winter, cash, no bids nor offerings.

CORN—No. 2 cash, 33 1/2c bid, 33 1/2c asked.

OATS—No. 2 cash, 21 1/2c bid, no offerings.

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

HAY—Receipts 12 cars; market steady.

Loose from wagons: prairie, 65c per 100 lbs.; timothy, 70c. Consignments in car lots:

fancy, small, new, 6 00a 7 00 per ton; large, 4 00a 5 00.

TWO-CENT COLUMN.

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

WILL SELL THOROUGHbred BERKSHIRE Hogs, and all my pure-bred Plymouth Rock Chickens at half of former prices, during the next thirty days. W. B. Scott, Emporia, Kas.

FOR SALE—Eight and a half miles from Topeka, on Carbondale road, 160 acres of excellent soil, all fenced, large orchard, running water, wells, cross fences. Price \$30 per acre. For particulars apply to C. L. DeRandamie, 107 1/2 East Seventh street, Topeka.

FOR SALE—Eight and a half miles from Topeka, on Carbondale road, 340 acres, excellent soil, all fenced, six-room frame dwelling house, large stone barn for twenty horses, hay loft holding forty tons, ever-running spring, four wells, large cattle sheds and corrals, large orchard, 1 acre of bearing grapevines, large stone smokehouse. Price \$50 per acre. For particulars apply to C. L. DeRandamie, 107 1/2 East Seventh street, Topeka.

FOR SALE—A highly improved farm of 160 acres, all under fence, four miles from Wakarusa station, with large dwelling house; stable with loft for twenty-five tons hay, crib for 1,000 bushels of corn, smoke house, 500 fruit-bearing trees, 1 1/2 acres of bearing grapevines, excellent well and creek, 16 acres of corral, 10 acres of timber. Price \$30 per acre. Also, the lease-hold of 160 acres adjoining—70 acres in sowed grass, 32 in corn, balance pasture. For particulars apply to C. L. DeRandamie, real estate agent, 107 1/2 East Seventh street, Topeka.

WANTED—To exchange, or sell and buy, an Angus Bull, to avoid relationship. Address E. W. Alberty, Pittsburg, Crawford Co., Kas.

FOR SALE—Two yards Wyandotte Chickens, one yard Partridge Cochins. One cock and five hens each. I will sell cheap. Extra good stock. Jno. I. Hewitt, Tenth street east, Topeka.

NO. 1 FARM FOR SALE—A good part can be readily irrigated, making it especially adapted for producing vegetables and fruits. Will sell low, compared with the true value. Address Box 3, Rock, Cowley county, Kas.

THE TURKVILLE P. O. FARM FOR SALE—Cheap, on easy terms. Saline river flows three-fourths mile through north side; two fine springs; 25 acres native timber; 90 acres improved; 70 acres pasture; 50 acres fine bottom land. A rare chance. Seven miles from two towns. Good schools, etc. Correspondence solicited. B. N. Turk, Hays City, Kas.

STRAYED OR STOLEN—One blood-bay Mare, 15 hands high, crippled in right hind foot. Also, one brown Mare, 14 hands high, with brown colt; colt had halter on when last seen. Finder will please call at corner Hutton and Lincoln streets, and get reward. J. T. Franklin, Topeka.

STOLEN—Black horse, white face, high neck, heavy mane but short, long heavy tail, shoes on front feet. \$25 reward. C. R. McDowell, 393 Morris avenue, Topeka, Kas.

WILL SELL OR TRADE—One-half blood Clyde Stallion, Annandale, Jr.; brought from Illinois; acclimated and a good breeder. W. Guy McCandless, Cottoawood Falls, Kas.

BARTHOLOMEW & CO., Real Estate and Loan Brokers, 189 Kansas avenue, Topeka, Kas. Write them for information about Topeka, the capital of the State, or lands, farms or city property.

FOR RENT—For cash, a Farm of 800 acres, fourteen miles northeast of Council Grove, Kas. It has a good house and barn and well, 52 acres broke and 640 acres fenced with four strands of barbed wire. Address S. S. Cartwright, Topeka, Kas.

FOR SALE.

Twenty Large Brood Mares.

Inquire of JACOB MARTIN, Coffeyville, Kansas.

FOR SALE! SHORT-HORN BULLS

Bred at the Agricultural College. We offer a good lot of SIXTEEN-MONTHS-OLD BULLS—all recorded, reds, of good families, good individuals. Price \$100 and upwards. Also choice POLAND-CHINA and BERKSHIRE Pigs. E. M. SHELTON, Superintendent of Farm, MANHATTAN, KAS.

FOR SALE!

THE GRAND BATES BULL, Baron Bates 13th, 54616, (Vol 26, A. S. H. H. Book.)

Baron Bates, as his pedigree shows, is one of the best bred Bates bulls in the land. He is a beautiful red, an easy keeper, good disposition, a sure getter, and in fair working order weighs about 2,200 pounds. Is sold only because we can't use him longer on our herd. Price \$400 on cars. He cost us as a yearling \$1,000. G. W. GLICK & SON, ATCHISON, KAS.

C. E. JEWELL & CO.

Chattel Mortgage Loans

A SPECIALTY.

OFFICE:—North Room under First National Bank. TOPEKA, KAS.

WANTED -- BULLS!

THREE THOROUGHbred GALLOWAY BULLS,

with good pedigrees, sixteen months to two years old. Address subscriber, naming price. Also some Cows, same breed.

S. J. GILMORE, 2758 Champa street, DENVER, COL.

CHICAGO LUMBER CO.

Wholesale and Retail Dealers in Lumber, Lime, Cement, PLASTER, AND ALL BUILDING MATERIAL.

We have 210 Lumber Yards. Our sales for 1886 were over 400,000,000 feet.

TOPEKA YARDS Corner Third and Jackson streets. ROBT. PIERCE, MANAGER.

Lonergan's Specific

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

HAGEY & WILHELM, WOOL Commission Merchants, 220 N. Commercial St., ST. LOUIS, MO.

REFERENCES:—Boatmen's Bank, St. Louis; Dunn's Mercantile Reporter, St. Louis; KANSAS FARMER CO., Topeka, Kas.; First National Bank, Beloit, Kas.

CHICAGO.

KANSAS CITY.

ST. LOUIS.

James H. Campbell & Co., LIVE TOCK COMMIS SION MERCHANTS.

—FOR THE SALE OF—

CATTLE, HOGS AND SHEEP.

Rooms 23 and 24, Exchange Building, Kansas City Stock Yards.

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

ARE YOU INTERESTED IN THE SUBJECT OF INSURANCE?

When you hear that some Live Stock Insurance Company has proven unreliable, remember that was a counterfeit. When you hear that some Fire, Lightning or Tornado Insurance Company has secured business through dishonorable means, or reprehensible methods, remember its name, as that is a counterfeit.

When you want reliable indemnity, at the lowest possible cost; When you want to patronize a Kansas institution that can always be found when wanted; When you want to do your business with old citizens of Kansas, who have an unimpeachable record for strict integrity; When you want an agency for your vicinity, remember not to be misled by designing scoundrels who talk only of "the home company," but apply to

KANSAS HOME INSURANCE COMPANY, AND TAKE NONE OTHER. TOPEKA, KANSAS.

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

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

Kansas Farmers' Fire Insurance Company,

ABILENE, : : : KANSAS, Insures Farm Property, Live Stock and Detached Dwellings

Against Fire, Tornadoes, Cyclones and Wind Storms. CAPITAL, FULL PAID, : : : : \$50,000.

The last report of the Insurance Department of this State shows the KANSAS FARMERS' FIRE INSURANCE COMPANY has more assets for every one hundred dollars at risk than any other company doing business in this State, viz: The Kansas Farmers' has \$1.00 to pay \$18.00 at risk; the Home, of New York, \$1.00 to pay \$46.00; the Continental, of New York, \$1.00 to pay \$30.00; 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 \$78.00 at risk.

Garden City,

The QUEEN CITY of the Arkansas Valley.

Surrounded by the FINEST LANDS in Kansas. Lands cheap, but developing rapidly. Now is the time to invest! Deeded Lands, \$4 to \$7 per acre. STOCKS & MILLER, Write for full information to The leading Real Estate Firm in GARDEN CITY, KANSAS.

HEADQUARTERS FOR KANSAS.

EIGHTH ANNUAL FAIR

—AT—

BISMARCK GROVE,

LAWRENCE, KANSAS, SEPTEMBER 5th to 11th, 1887.

\$20,000 IN PREMIUMS.

HENRY W. ROBY, M. D., SURGEON

General Manager Kansas Surgical Hospital Association.

OFFICE:—118 Sixth Avenue W., TOPEKA, A 4

RUPTURE

Have you heard of the astounding reduction for DR. J. A. SHERMAN'S Famous Home Treatment, the only known guarantee comfort and cure without operation or hindrance from labor! No steel or iron bands. Perfect retention night and day, no chafing, suited to all ages. Now \$10 only. Send for circular of measurements, instructions and proofs. Get cured at home and be happy, office 24 Broadway, New York.



PIANO

LEAD ALL OTHERS.

The Best in Quality. Reasonable in Price.

We offer special inducements to those wishing to buy for cash or on easy payments. Write to or call on

E. M. MILLER & CO., 511 Kansas Avenue, TOPEKA, KAS.

GO SOUTH Young Man and Stamp for particulars. E. C. LINDSEY & CO., Norfolk, Va. BUY A HOME

THE STRAY LIST.

HOW TO POST A STRAY.

THE FEES, FINES AND PENALTIES FOR NOT POSTING.

BY AN ACT of the Legislature, approved February 27, 1886, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal, to forward by mail, 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, County Clerk, or the proprietors of the FARMER for a violation of this law.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

FOR WEEK ENDING JULY 21, 1887.

Clark county—J. S. Myers, clerk.

COW—Taken up by Josiah Caylin, in Englewood tp., (P. O. Englewood), May 18, 1887, one spotted cow, no distinct marks or brands; valued at \$20.

PONY—Taken up by J. S. Hodges, in Englewood tp., (P. O. Englewood), May 19, 1887, one sorrel mare pony, three white feet, no brands; valued at \$20.

Allen county—R. W. Duffy, clerk.

PONY—Taken up by S. S. Speakman, in Humboldt tp., June 20, 1887, one sorrel mare pony, 7 years old, branded on left shoulder with Spanish brand, white spot on left shoulder; valued at \$20.

Barber county—Robt. J. Talloferro, clerk.

HEIFER—Taken up by M. McGuire, in Sharon tp., (P. O. Sharon), June 23, 1887, one white heifer, under part of both ears cut off; valued at \$8.

Ness county—G. D. Barber, clerk.

HEIFER—Taken up by James Farr, in Franklin tp., June 29, 1887, one spotted 3-year-old heifer, branded Z; valued at \$18.

HEIFER—By same, one white heifer, 3 years old, branded H; valued at \$20.

Cowley county—S. J. Smock, clerk.

COW AND CALF—Taken up by George Merang, in Creswell tp., July 1, 1887, one roan cow, line back, drooped horns, right horn partly broken off, gives milk from six teats, no brands; red heifer calf at side with star in forehead.

Johnson county—Henry V. Chase, clerk.

HORSE—Taken up by Jerry Williams, in Oxford tp., one bay horse, black mane and tail, white spot in forehead, branded p on right shoulder; valued at \$40.

FOR WEEK ENDING JULY 28, 1887.

Barber county—Robt. J. Talloferro, clerk.

MARE AND COLT—Taken up by E. T. Mathew, in Hazelton tp., (P. O. Hazelton), July 6, 1887, one iron-gray mare, weight 1,200 pounds, blind in right eye, no brand; horse colt, bay, two white feet, no brand; valued at \$150.

Sedgwick county—E. P. Ford, clerk.

HORSE—Taken up by James M. Walker, in Minnehaha tp., June 24, 1887, one sorrel horse, 6 years old, 14 hands high; valued at \$40.

Nemaha county—R. S. Robbins, clerk.

PONY—Taken up by G. W. Conrad, in Caploma tp., (P. O. Caploma), July 8, 1887, one dun mare pony, about 4 years old, branded E on left jaw and Mexican brand on left hip; valued at \$20.

Bourbon county—E. J. Chapin, clerk.

PONY—Taken up by G. Goucher, in Pawnee tp., June 30, 1887, one sorrel horse pony, about 12 years old, blind in left eye, branded W on right hip; valued at \$15.

Ness county—G. D. Barber, clerk.

PONY—Taken up by F. L. Murdock, in Center June 3, 1887, one bay horse pony, brand on shoulder and hip, right hind foot white, star in forehead; valued at \$35.

PONY—By same, one iron-gray mare pony, no brand; valued at \$40.

Johnson county—Henry V. Chase, clerk.

COW—Taken up by —, one dark red cow, about 5 years old, branded O on hip, rope mark around head at base of horns; valued at \$12.

Shawnee county—D. N. Burdge, clerk.

BULL—Taken up by H. W. Hampe, in Dover tp., July 2, 1887, one dark red bull, about 2 years old, a little white under body and on front legs, branded R on left hip, no other marks or brands visible; valued at \$15.

FOR WEEK ENDING AUGUST 4, 1887.

Brown county—G. I. Prewitt, clerk.

STEER—Taken up by Robert Gaston, in Hamlin tp., July 11, 1887, one 1-year-old red steer, crop off left ear, swallow-fork in right, branded H on left hip; valued at \$15.

Chase county—J. J. Massey, clerk.

PONY—Taken up by A. L. Morrison, in Bazaar tp., (P. O. Matfield Green), one horse pony, 4 years old, 14 hands high, four white feet, white face, no other marks or brands; valued at \$80.

Atchison county—Chas. H. Krebs, clerk.

MARE—Taken up by Wm. Fitz Charles, in Shannon tp., (P. O. Atchison), June 29, 1887, one light gray mare, 16 hands high, no marks or brands, 9 or 10 years old; valued at \$50.

Pratt county—Demey Lewis, clerk.

PONY—Taken up by Henry Secrest, in Haynesville tp., (P. O. Silverton), one gray horse pony, 15 hands high, heart-shaped brand in left flank; valued at \$40.

PONY—By same, one sorrel horse pony, 14½ hands high, heart-shaped brand in left flank; valued at \$40.

Comanche county—Chas. P. Overman, clerk.

HEIFER—Taken up by Geo. A. Poppleton, in Powell tp., (P. O. Poppleton), July 8, 1887, one red and white yearling heifer, indescribable brand; valued at \$7.

Cherokee county—L. R. McNutt, clerk.

MARE—Taken up by T. Conklin, in Pleasant View tp., July 6, 1887, one dark brown or black mare, branded XZ on left thigh, right hind foot white, star in forehead and supposed to be about 8 years old.

Jefferson county—E. L. Worswick, clerk.

PONY—Taken up by Abram Stauffer, in Delaware tp., on or about the 11th day of July, 1887, one bay horse pony, white strip on face, white left hind foot, brand on left jaw q, brand on left shoulder Y S, indescribable brand on hip; valued at \$15.

FOR SALE!

Four Colonies Italian Bees, at \$5.00 each.
Four Trios Prize-winning S. C. B. Leghorns, at \$2.50 per trio. Must be sold.
Address J. B. KLINE,
924 Kansas Avenue, Topeka, Kas.

FOR SALE!

A fine Stock Ranch of 800 acres, all in one body and all fenced and perfectly watered by never-falling spring creeks; 80 acres of blue grass; 150 acres valley land; a \$500 barn; new house; large stone spring house over one of the largest springs in Kansas, that never fails; 700 apple trees, 100 plum, 25 cherry, 25 pear and 300 peach; also small fruits, 100 grape vines and 25 crab apples; young groves of maple, walnut, catalpa and poplar of about 4 acres. Lowest price—\$22 per acre. Will take good farm or city property in part; balance long time.
Address WM. FITZGERALD,
Atlanta, Cowley Co., Kansas.

FOR SALE!

Large English Berkshire Hogs

Being obliged to change my business, on account of the burning of my hotel, I will sell at Low Prices

All My Brood Stock and Pigs.

The old stock is all recorded and the young stock is eligible to record. Correspondence solicited. The stock can be seen at the owner's residence, one-half mile north of Emporia Junction.

Satisfaction guaranteed.

L. P. SHELDON, Emporia, Kas.

STOCK SALE!

AUGUST 17, 1887.



On above date, I will offer for sale, at my farm, adjoining Wakefield, Kas., at 1 o'clock p. m., the following stock, to-wit:

250 Shropshire - Down Sheep,

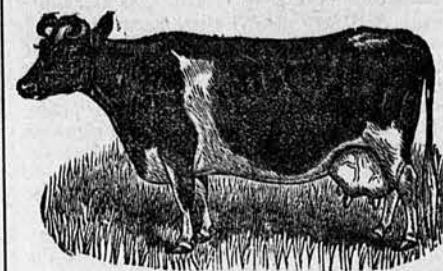
Consisting of twenty-five rams, the remainder ewes, wethers and lambs; nine head horses, mules and colts; sixteen cows, steers and calves, and twelve head hogs; two full-blood Poland-China boars and two sows 3 months old. Time and Terms—Given on day of sale.

Sheep will be sold in lots to suit purchasers.
E. JONES, Prop'r, Wakefield, Kas.
J. S. THOMPSON, Auctioneer.

Sheep--For Sale--Sheep!

Rams, Wethers, Ewes, Lambs. Rams thoroughbred, balance high-grade Merinos. Staple long; fleeces average eight pounds. Ewes lamb in May. Shearing commences June 1. Will sell before or after that time. Range overstocked and must sell.
T. O. FOX,
Ellsworth, Kansas.

PUBLIC SALE —OF— Blooded Cattle!



—BY—
W. J. ESTES & SONS,

—AT—
WINFIELD, KANSAS,

—ON—
Wednesday, August 17, 1887.

Sixty head of Cattle, consisting of

THOROUGHbred HOLSTEIN-FRIESIANS and GRADE COWS and HEIFERS; NIAGARA 853, A GRANDSON OF ECHO 121, THE FINEST HOLSTEIN BULL IN THE STATE; ALSO A FEW GRADE SHORT-HORNS and HEREFORDS.

The sale will be held at S. Allison's Livery Barn in Winfield, commencing at 10 a. m. TERMS:—Twelve months time for sums over \$10. Bankable notes without interest, if paid when due; 12 per cent. from date. Ten per cent. discount for cash.
WALTER DENNING, Auctioneer.



EARLY DAWN HEREFORD HERD,

The Champion Herd of the West,

—CONSISTING OF—

250 HEAD OF THOROUGHbred HEREFORD CATTLE.

The sweepstakes bulls BEAU MONDE and BEAU REAL and first-prize Wilton bull SIR JULIAN, out of the famous English show cow Lovely, by Preceptor, are our principal bulls in service.

E. S. SHOCKEY, Secretary, Maple Hill, Kansas.

Twenty miles west of Topeka, on the C., R. I. & P. R. R.



TOPEKA HEREFORD CATTLE CO.

TOPEKA, -- KANSAS.

FIFTY HEAD CHOICE COWS and HEIFERS FOR SALE.
New Catalogues on application.

We have also for sale for the Curran Cattle Co., of Harper, Kansas, 350 head of Grade Cows and Heifers.

F. P. CRANE,
Manager.

C. E. CURRAN,
Secretary.

SPECIMEN OF CALVES BRED AT THE

MOUNT -- PLEASANT -- STOCK -- FARM.



Descendants of Royal English winners and Sweepstake winners at the prominent fairs of the United States. Sweepstakes herd at the great St. Louis Fair in 1885.

This herd is one of the oldest and largest in the country, comprising 300 head of choicest Herefords from all the best strains in England and America. The herd is headed by famous first-prize and sweepstakes bulls: FORTUNE 2080, one of the most celebrated bulls of the breed, by the famous Sir Richard 2d 970a—the smoothest, blockiest family of the breed; Sir Evelyn 9650, one of the best sons of Lord Wilton 4057; Grove 4th 13732, an illustrious son of Grove 3d 2490; Dewsbury 2d, 18977, by the celebrated Dolly 9485.

FOR SALE—Cows, Bulls and Heifers, either singly or in car lots, at the very lowest prices consistent with first-class breeding and individual merit. Special prices given to parties starting herds. Visitors always welcome. Catalogues on application.
J. S. HAWES, Colony, Anderson Co., Kas.

Kansas City Stock Yards,

KANSAS CITY, MISSOURI,

Are by far the most commodious and best appointed in the Missouri Valley, with ample capacity for feeding, weighing and shipping cattle, hogs, sheep, horses and mules. No yards are better watered and in none is there a better system of drainage.

Higher Prices are Realized

Here than in the markets East. All the roads running into Kansas City have direct connection with the Yards, which thus afford the best accommodations for stock coming from the great grazing grounds of Texas, Colorado, New Mexico and Kansas, and also for stock destined for Eastern markets.

The business of the Yards is done systematically, and with the utmost promptness, so that there is no delay and no clashing, and stockmen have found here, and will continue to find that they get all their stock is worth, with the least possible delay.

Kansas City Stock Yards Company Horse and Mule Market.

FRANK E. SHORT.

CAPT. W. S. TOUGH.

F. E. SHORT & CO.

Managers.

This company has established in connection with the Yards an extensive Horse and Mule Market, known as the KANSAS CITY STOCK YARDS COMPANY HORSE AND MULE MARKET. Have always on hand a large stock of all grades of Horses and Mules, which are bought and sold on commission, by the head or in carload lots.

In connection with the Sales Market are large feed stables and pens, where all stock will receive the best of care.

Special attention given to receiving and forwarding.

The facilities for handling this kind of stock are unsurpassed at any stable in this country.

Consignments are solicited, with the guarantee that prompt settlements will be made when stock is sold.

C. F. MORSE,
General Manager

E. E. RICHARDSON,
Secretary and Treasurer.

H. P. CHILD,
Superintendent.

The Veterinarian.

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

MAGGOTS IN SHEEP.—I think that I can now pronounce myself an expert upon the treatment of maggots, as I have experimented with nearly every remedy I ever heard of, such as carbolic acid, tobacco and many others unnecessary to mention. My conclusion is, that McDougall's Dip is the best to free the sheep of maggots in cases where it can reach them effectively; especially is this dip useful to kill them in the ears, which I find is the most dangerous place for them to accumulate, but in deep recesses where it cannot reach them, a little calomel is the best to stir in among them. This is certain destruction, and also very healing to putrid parts. Coal tar is the best prevention against the fly; no carbolic mixture will answer as well in my experience.

HORSE OUT OF CONDITION.—I notice the hair is coming out in spots under the belly on quarters of my mare, between her legs. She seems to be itchy, but I cannot see any eruption. Her appetite is very poor, and she is thin. She had a colt last spring, and when we took it from her in the fall, had a hard time to get her dry. Her bag became very much swollen, and the veterinarians said she was threatened with milk fever. She seems to be a little stiff in her hind legs; raises them higher than is natural, when first taken from the stable. Her feed is prairie hay and oats. We drive her just enough for exercise. [Give one of the following balls every five days until all are used: Powdered iodine, 2 drachms; powdered iodide of potassium, 6 drachms; powdered Barbadoes aloes, 18 drachms; powdered gentian root, 2½ ounces, and a sufficient quantity of syrup. Make into six balls. Her teeth probably need some filing, etc. Are there any lice on skin? Rub a very little kerosene oil on the skin where the hair is loose, and wash it off next day with hot water and soap. Do not cover a space of more than one square foot at a time; if there is more space than that, do a part; then, in a few days, another part, and so on. I do not like to prescribe this oil, but I do not think you could obtain proper remedies in the Territory.]

JOINT DISEASE IN COLTS.—Will you please tell me what is the trouble with my colts? About two weeks ago a two-week-old colt came in from pasture with its right hock joint swelled up. I have used Mustang Liniment every day since. The fever has gone out, but the swelling is still there. This morning another colt is in the same fix. A good many colts have died from the disease—in some of them both joints swelling. Have they got the rheumatism? and with what would you advise me to treat them? [The disease with which the colts are affected is an inflammation of the joints. The disease at one time was thought to be of a rheumatic nature, but recent investigations do not confirm that idea; and in this connection it may be remarked that it does not prevail merely during cold, wet seasons, which would be the case if the disease were of a rheumatic nature. As it now appears evident that the joint disease of colts arises from an unhealthy inflammation of the stump of the umbilical cord it is important as a means of prevention to give special care to the treatment of the navel after birth. For this purpose, when the disease is prevalent, the navel of the colt should be washed two or three times a day with the solution afterward mentioned. This should be continued from the day of birth until the time that the navel is completely

healed. The object of applying this treatment is to prevent the development of an unhealthy inflammation at the navel, which would occasion blood poisoning, and afterward swelling and inflammation of the joints. If the mare and colt are at any time kept in a stall or shed all dung and wet litter should be removed once a day, and a little unslaked lime should afterward be sprinkled on the floor of such place. The contact of the raw umbilicus or navel with filth of any kind is dangerous. Recent investigation also appears to show that the disease is contagious; so the prevention of its occurrence on a farm becomes a matter of great importance. Colts affected with joint disease should get from five to ten grains of salicylate of soda three times a day in a little water, and camphorated spirit should be rubbed gently twice a day on the affected joints. If the swelling of the joint ulcerates and discharges, or if the swelling evidently contains matter (pus) and is opened, then once a day a solution composed of carbolic acid 1 drachm, water 6 ounces, should be syringed into the joint, and then it should be bandaged, so as to exclude the air. This solution may also be applied to the navel. When the disease, however, has attained the stage last described the colt seldom recovers so as to be of any use afterward. Great importance ought therefore to be attached to preventive measures.]

TOWHEAD STOCK FARM

LEONARD HEISEL,
CARBONDALE, (OSAGE CO.), KANSAS,
Importer and Breeder of



Clydesdale & Norman
HORSES.

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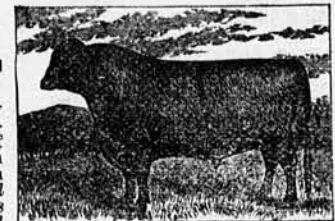
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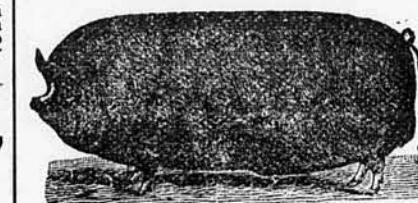
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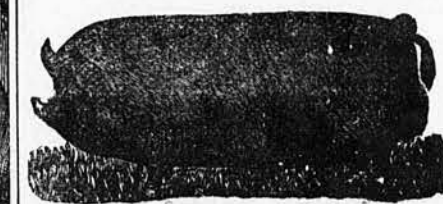
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I have a few prize-winning boars for sale, also forty-five head of aged sows have farrowed this spring. Orders booked for pigs without money till ready to ship. Nothing but strictly first-class pigs shipped. Prices reasonable and satisfaction guaranteed. My motto: "Individual superiority and best of pedigree." I am personally in charge of the herd.
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Emporia, Kas.

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"Golden Medical Discovery"—the great blood purifier.

Don't spoil your horse's temper by losing your own. It never pays to get mad at a horse.

Cows about to come in should be watched, and, as their time approaches, reduce their food, to prevent garget and other troubles, giving plenty of good, sound hay.

Kansas leads the states in railroad building in 1887, with 692 miles the first half of the year. Texas follows with 489, then comes Nebraska with 331, and Dakota with 304, and so on down to Massachusetts with 11.

If you have chapped hands or rough skin, use Stewart's Healing Cream. Only 15 cents a bottle. Gentlemen who suffer from a tender face after shaving are delighted with it. We only ask a trial. Stewart Healing Powder Co., St. Louis.

It is proposed to construct an underground railway in Chicago. It is designed to lay a tunnel thirty-five feet under the streets, reaching all quarters of the city. The lines on the principal streets would comprise four tunnels, two each for trains moving in different directions, and approached by staircases from the street corners at intervals of about half a mile. The system will be similar in design to the underground railways of Paris and London.

Farm Loans.

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

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Bank of Topeka Building, (upper floor),
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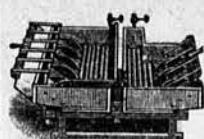
Here is an Indiana chicken story, telegraphed from Indianapolis to Chicago: "A novel sight was witnessed here yesterday as a result of the high temperature of the past three weeks. Some time ago a firm received a consignment of eggs packed in boxes. The eggs were placed in storage and this morning the consignee opened them. When the lid was removed the low call of chickens sounded in his ears. One entire layer of eggs was found to be hatched out and in a few minutes afterwards fifteen orphans picked their way through the shells. Another layer began to hatch out at noon, and it now looks as if all would hatch."

The Pension Bureau is in receipt of a large number of letters from pensioners under the Mexican pension act of January 29, 1887, asking why payment does date from date of passage of the act. As a general answer to these inquiries the commissioner desires it stated that by the terms of the law payment can only be made from January 29, 1887, where the pensioner has reached the age of 62 years prior to that date, and where the pensioner reaches the age of 62 subsequent to that date payment will be made from that date. Thus, if the pensioner was 62 years of age on March 1, 1886, he will be paid from January 29, 1887. If he was 62 years old March 1, 1887, he would be paid from that date. This does not apply to applicants on the grounds of disability and dependence.

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 Gulf Route (Kansas City, Ft. Scott & Gulf R. R.), 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. No change of cars of any class, Kansas City to Chattanooga, Knoxville and Bristol, Tenn. 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 our "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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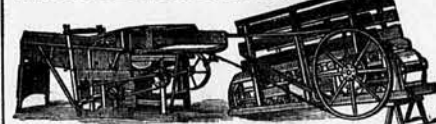
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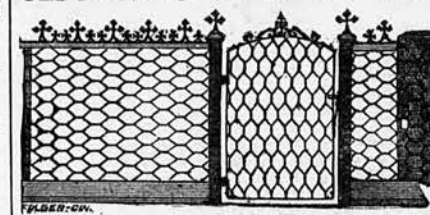
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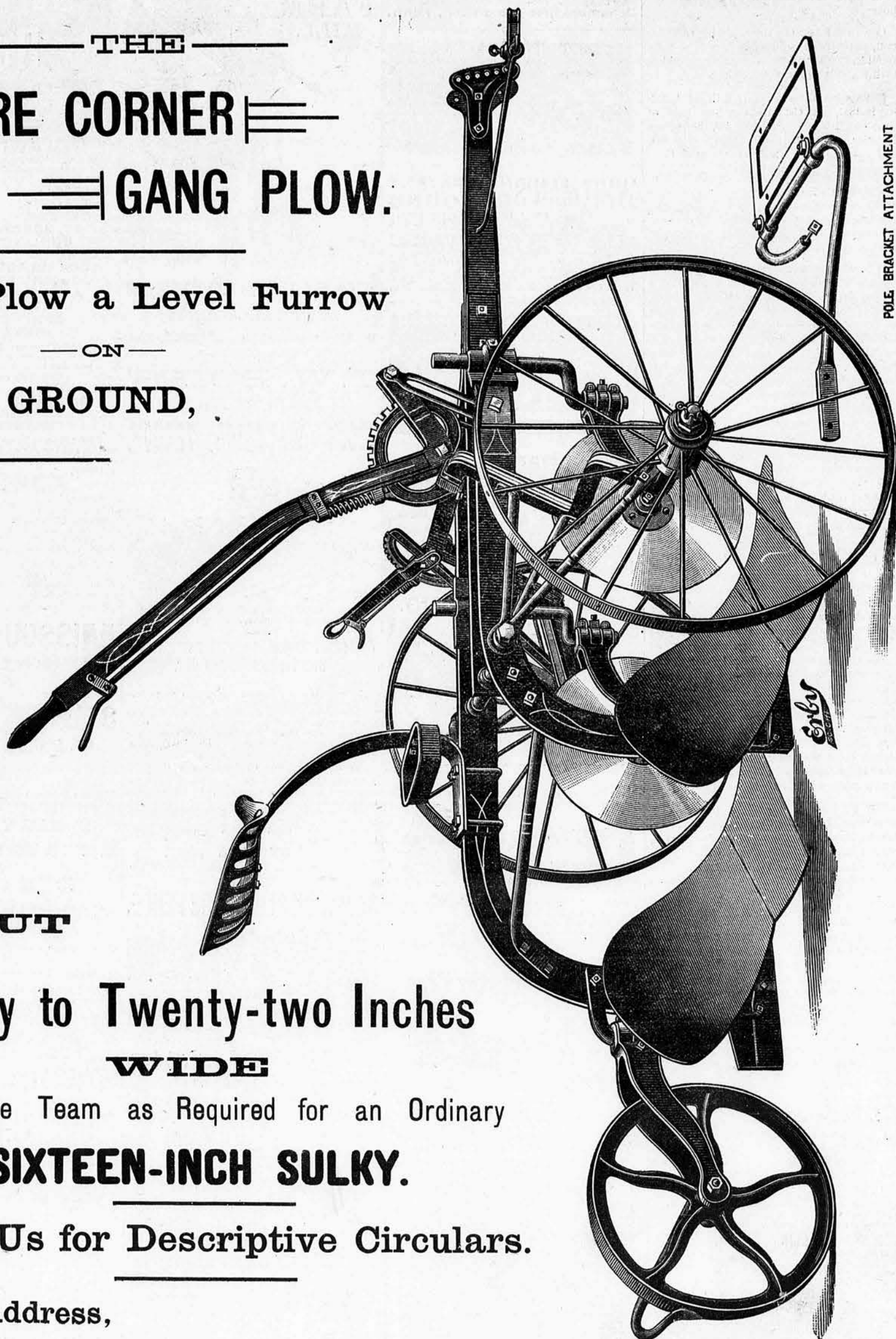
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