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DISEASES OF PLANTS AND THEIR REMEDIES.

Read before the Society of American Florists, at the Annual Convention, held in Cincinnati, July 12th, 13th and 14th, 1885. By Charles Henderson, Jersey City Heights, N. J.

In undertaking a subject of such wide scope and vital importance, I realize fully my unfitness to instruct such a body of older and more experienced men, but as every one's experience is of some value, I trust you will not consider these ten minutes wasted.

In my observation, very few plants are attacked by insects or disease when in vigorous health. It is only when the vitality is impaired or the growth checked by any cause that they strike. Red spider rarely troubles plants when growing strongly and even the mealy bug seems to pursue his ravages more vigorously when growth is slower during the winter months. As instances of this, we find that *Coleus* are badly injured in mid-winter by mealy bugs, but outgrow their attacks in spring and summer. *Bouvardia* is another case in point, being one of the worst plants we have for the mealy bug, yet when spring comes, and plant vigor asserts itself, they seem to a great extent to disappear. Mildew attacks your roses when a ventilator is raised carelessly on a cold raw day, and the chilling air strikes down on the soft growth, checking the flowing sap and leaving the plant in a debilitated condition, which invites the fungus known under this name. A marked instance of this occurred in our place years ago. We had a house filled with hybrid roses in full leaf and just showing bud; the house was ventilated by old fashioned square ventilators that slid up and down. One afternoon they were carelessly left open too long, and the plants under the openings were slightly frozen. The frost apparently did but little injury, but in two days the plants that had been under the openings were completely covered with mildew, while the rest of the house was comparatively free from it. This showed conclusively that the affected plants were made liable to the mildew by having their vitality checked by the slight frost. Of late years, one of the most annoying diseases attacking plants is that affecting the carnation, and it is undoubtedly caused by working our stock year after year at a high temperature, which weakens the general vitality, and the disease, be it a fungus or an insect, quickly follows. In the fall of 1883, we had a surplus of two varieties of carnations, and rather than throw them away we "heeled" them in a cold frame, putting straw mats on the glass in extreme weather. They wintered well, and in March we put in a few hundred cuttings of each. We marked them, and last winter they were the best plants we had, not one of them dying off, while we lost hundreds of the same kinds in our regular stock; and I firmly believe that if this plan was adopted of wintering carnations intended for propagation, that the "carnation disease" would disappear. Another and perhaps more practicable way of avoiding the difficulty we have practiced for years, and that is to propagate our young stock as early as possible in the winter and, after they have become established, knocking them out of the pots and putting in shallow boxes in cold frames. This gives them some of the needed rest, and the good effect is very marked. This theory of weak-

ened vitality being the cause and not the consequence of most plant diseases is, perhaps, best borne out in the case of the "black rust, or verberna rust." It is a common mistake for growers to use for planting out such plants of verbenas as have been propagated in mid-winter. These plants are usually held in the same pots long after they become pot-bound, and consequently are stunted and perhaps diseased when set out. Although they may appear to grow strongly at first yet the taint is there, and when mid-summer comes, with its protracted spells of heat and drouth, the vigor is gone completely, and the insect producing the disease we call "rust" appears in myriads. The true plan is to use for planting the last propagated plants in Spring, these sustaining no check, grow right along until mid-summer, when it is necessary to cut them severely back, and fork in a good dressing of manure as close to the plant as possible, followed up by a thorough soaking of water. This last of course, if the ground is dry, which is almost invariably the case in August. Plants so handled grow vigorously, avoid the fatal check, and give healthy cuttings when needed in October. The "rust" that is found on *Heliotropes*, *Bouvardias*, etc., is probably the same thing, or in any case is produced by the same cause. This is particularly noticeable in *Heliotropes*, as they become "rusty" at once if pot-bound. The insect producing "black rust" is invisible to the naked eye, but under the microscope somewhat resembles a cockroach in shape and general appearance. When plants are affected, a syringing twice a week with fir-tree oil is effective in checking it, but as in everything of this kind, prevention is the best remedy.

Celery Rust.—Although this is a little out of the florist's line, yet a valuable lesson may be drawn from the causes that produce it. The celery "rust" is occasioned by anything that injures the roots, either an excess of rain or a drouth—either cause kills the working roots, and the yellowing up or "rusting" of the leaves soon follows. In the open field this is beyond our control, but the hint given is invaluable in operations under glass, where watering is under our command. There is but little doubt that nine-tenths of the failures in rose growing for flowers in winter is traceable to the working roots of the plants being destroyed by being kept too wet or too dry.

Green Fly.—Of course we all know that this insect can be destroyed by fumigation with tobacco, but in cases where cut-flowers are grown, particularly roses, tobacco smoke will take the color out of the buds, and to a great extent lessen their value. The "fly" can be kept down by simply spreading tobacco stems about the house and giving them a dash of water whenever you are watering. The slight fumes that are constantly arising from the tobacco will keep the green fly entirely under subjection. We kept a rose house, 312 feet long and twenty feet wide, entirely free from "fly" with a layer of tobacco stems, ten inches wide and two inches deep, running the full length of the house. It is not safe to put the stems on the bed where plants are growing, as sometimes there are ingredients used in curing the tobacco which will cause injury to the plants. I have known several cases of this. The stems need renewing every six weeks.

Mealy Bug.—We have tried various emulsions of kerosene oil for this pest but with different results. Alcohol, which is the

basis of most insecticides for mealy bug, will do the work, but it is too expensive for general use. The imported preparation known as "fir tree oil" is by far the best and most economical remedy we have yet tried. It kills the bug and its eggs and does no practical injury to the plants. In using the fir tree oil or any similar insecticide, it is better, when practicable, to dip the plants in the preparation. In my experience one dipping is as good as ten syringes and much more economical. A common error in the use of all insecticides is the want of persistence in their use. It is much better to use a weak application of any insecticide frequently than a stronger dose of it at less frequent periods. For example, we have always found it more effective and safe to fumigate with tobacco smoke our houses twice a week lightly, rather than once a week and more heavily.

Rose Bugs.—This most dangerous insect first appeared in quantity about seven or eight years ago, and probably you are all familiar enough with it by this time. It is about as large as a lady bug, but is brown in color. The perfect bug feeds on the tops, eating the leaves and doing some injury, but the great mischief is done by the larvæ feeding on the roots. This is a white grub about one-fourth of an inch long which is hatched in the soil by the bug. Its presence at the roots is quickly shown by the yellowing and dropping of the leaves, which by the inexperienced, may be attributed to the ordinary causes of overwatering or too high a temperature, but if a plant is dug up dozens of the grub will be found about the roots. The only remedy seems to be to pick the perfect bugs from the tops by hand. The rose bug has not done so much damage in the last few years, as the now general practice of planting new stock each year seems to have disturbed and prevented their breeding.

Black Ants.—These symbols of industry will cause considerable injury and annoyance in a greenhouse if allowed to gain headway. They tunnel the soil in pots and benches, and carry the soil up the stems of the plants, and encrust with it the mealy bug and scale, which they pretend to devour but never diminish. They can be readily exterminated by dusting the large runs of them with *Pyrethrum*, applied with a bellows. It is useless to spread it around by hand, as they are killed by breathing it, and it must be distributed in fine particles. In the winter of 1883 our place became badly infested with ants, and only the persistent daily use of *Pyrethrum* for three months exterminated them.

Mildew.—The only remedy we have ever used for mildew is sulphur, either by putting it on the pipes so that the fumes will be thrown off by the heat, or in the liquid form as follows: 1 lb lime and 1 lb sulphur in 2 gals. of water; boil this down to one gallon, and use a wineglassful of this to 5 gals. of water, and syringe the affected plants twice a week. This is particularly useful in summer when not firing, and is a certain remedy. It has been recently suggested to use linseed oil mixed with sulphur for painting the pipes, it being claimed that in this way the sulphur would do no harm to the plants. Now, while the linseed oil may be a good thing to mix with the sulphur to make it stick to the pipes, it is certainly of no other benefit. It is well known that sulphur mixed with water alone is used on hot water pipes in greenhouses and graperies, as an antidote against mildew and red spider,

without injury to the plants. It has been our practice for years to sprinkle the pipes with water and then dust the sulphur on while wet, and I have never seen the slightest injury to roses or other plants by this manner of applying it. Many serious results have occurred by burning sulphur in greenhouses or applying it on brick flues, where the temperature is perhaps 300 degrees, but I never heard of injury to plants resulting from its being applied on hot water pipes where the temperature is usually under 200 degrees.

Black Mildew or "Black Spot."—I have had scarcely any experience with this, as we never have had it on our place, except in a slight degree on some hybrid tea roses. I have noticed, however, that it is most prevalent in rose establishments where the stock is grown for propagation in shallow benches, in soil without manure. It is almost unknown where the plants are grown for cut-flowers, and consequently are liberally fed. In all probability this continued starving leaves the stock in such condition that it invites the "black spot." There is a formula which is said to check it, but it has been kept a secret by the discoverer.

In conclusion I would say that, in my opinion, the ventilation of a greenhouse has more to do with the health of its contents than any other one cause. This is particularly true with roses. If air is given on a rosehouse, day and night during July and August, there will be little trouble with mildew, as the cool night air and the action of the wind all tend to toughen the fibre of the wood and leaves and give strength of constitution to the whole plant, so that when the spores of mildew and other fungoid diseases strike, they do not take root, but glance off harmlessly from the hardened and fortified foliage.

A Magnificent Display of Live Stock.

The display of cattle and horses and live stock of all kinds at the Great Western National Fair at Bismarck Grove, Lawrence, Kansas, September 7 to 12, will be in all respects the most magnificent, remarkable and extensive that has ever been seen in the country. Magnificent animals of every known breed, the pick of the finest herds in the country will be on exhibition. The number of entries has been simply stupendous, horses and cattle being entered from all parts of the country, from New York and New England to New Mexico. The stock show at Bismarck alone will be worth going a thousand miles to see. Accommodations are now provided for nearly 2,000 head of live stock and still it is probable that there will not be sufficient room for all the stock that will be on exhibition.

The value of such an exposition to the farmers and stockmen of the West is incalculable. An opportunity for comparing the different breeds of horses, cattle hogs and sheep and noting the excellencies and deficiencies of each, will be presented such as never was offered to the people of the West before. No farmer or stockman should neglect this opportunity to add in an inestimable degree to his knowledge concerning live stock. In live stock as in everything improvements and developments are constantly going on, and is of money value to our readers to keep abreast of the progress of the age. Do not neglect this great opportunity, but make your arrangements to attend the Great Western National Fair at Bismarck Grove, Lawrence, Kansas, during the week of September 7 to 12.

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER:
 September 18—H. M. Garlich, Holstein-Friesians, Kansas City, Mo.
 October 23—Hon. T. W. Harvey, Burlington, Neb.
 November 3 and 4—Inter-State Short-horn Breeders, Kansas City Fat Stock Show.
 S. E. Ward & Son, Short-horns, first Friday of Kansas City Fat Stock Show.

Thoughts on the Feeding of Swine.

Feeding animals for profit is a science. It must be conducted according to well-established rules. Not that the proceeding must be managed with the precision and exactness of a demonstration in geometry or the running of a perfect machine; but, as the *National Live Stock Journal* expresses it, there are certain principles in feeding pigs which are of great simplicity, and which should be regarded with extreme care, whether or not equal care is taken in the selection of the food. There is nothing more important than that pigs should be fed regularly, and whether the supply is given twice, three times, or four times daily, it should invariably be at the same hours.

There is entirely too much carelessness in feeding. Slovenliness, irregularity, impure feed, filth, etc., will no more succeed in hog feeding than damaged lumber and incapable workmanship will result in the erection of a good dwelling. It is believed by a large class of people, says the authority above quoted, that it is one of the simplest things in the world to feed a pig; and the bare idea of conducting a system of feeding upon anything approaching scientific principles is to them the height of absurdity. There is, however, no better method of testing the truth of what science, combined with practice, has taught us than the conduct of an experiment with pigs of a similar race and age upon two systems of feeding—the one being in accordance with the common, and, we might almost add, ignorantly applied, method; and the other consistent with the principles which a thoughtful study of the subject has laid down. In pig feeding there are many things to consider, more particularly now that it is most difficult to feed them to profit, in spite of the lower price of grain. Foods which are used for the purpose are numerous, and, in many senses of the word, extremely good; but, in order to obtain remunerative and rapid results, a feeder should make himself acquainted with their constituents, with the relative quantities required for the purpose of sustaining the animals, for maintaining their growth, and for producing fat. Just as there are certain foods, admirable in their way, upon which a human being could not long exist, so are there foods which, when given judiciously, are useful to pigs, but which, without the addition of other substances, would not only fail to increase their weight, however large the quantity given, but would prove insufficient to maintain a healthy condition. There is no domestic animal which feeds so rapidly as the pig, and probably none which so imperfectly masticates its food. This being the case, it is still more necessary that the food should be of a digestible nature, or that it should be given in such a form as will make a smaller demand upon the digestive organs of the animal, and enable it to appropriate the nutritive portions with a minimum of loss. It should not be forgotten that the sole end of pig-breeding is to obtain a large quantity of meat, of a good quality, in as short a space of time as possible. The greatest quantity can not be obtained without green food and suitable feeding, nor can we expect quality without a combination of good feeding and management. In conse-

quence, perhaps, of the common custom of keeping pigs in styes, many persons are under the impression that they neither need exercise nor green food; and, indeed, it is often forgotten that the pig is a grazing animal. It is a fact, however, that there is no domestic animal upon the farm which pays better for liberty upon the pasture; and it may be laid down as a practical truth that the pig breeder and feeder who grazes his breeding stock, as well as the young stock intended for fattening, will meet with a much larger meed of success than those whose animals are regularly confined to the sty, no matter how carefully they are managed or how admirably they are fed. It has been said that, as the object of a pig's life is successful fattening, if he fails in that, his life is a failure. Providing the animal is of a good breed, and is healthy, such a result could scarcely be brought about, unless by bad feeding and management. It is, nevertheless, a fact that, in the past few years, many practical breeders have lost money by their pigs notwithstanding the care with which they have fed them; but, as a general rule, however bad the market may be, there are always persons who, pursuing a practical system, are able to make a successful return where their neighbors lose money upon every pig which they put up to feed. * * * In practice, it has been found that a mixed ration not only suits the constitution of the pig very much better than any other, but that it goes much further, especially if it is given in a warm state.

Experiments have also shown another fault in the system of feeding entirely upon one class of food. The digestive organs of the animal are unequal to the extraction of the whole of its nutritive properties; and, as in the case of man, it has been found that at least 50 per cent. is sometimes passed through the system into the manure without having benefited the animal in the slightest degree. Bousingault, whose reputation as a scientist places his opinion in a very high position, found, from a number of experiments which he made with pigs: (1), that pigs fattened upon a mixed ration contained more fat than that which they had received in their ration; (2), that pigs fed exclusively upon potatoes produced no more fat than was contained in their food; (3), that food which, given alone, have not the faculty of developing fat, acquire that faculty in an astonishing manner when fat is added to them, although fat given alone produces inanition; (4), that fat-producing rations, which only contain a minimum of fat, are always rich in nitrogenous properties. Nor is it necessary, in feeding, that the trough should be filled, although it is a common supposition, especially in the country, that a man is a liberal, and consequently a good feeder, if a considerable quantity of meal is found remaining in the trough when the animal has satisfied itself and has lain down to sleep. It is a fixed rule with all who have mastered the question, to give no more than can be properly eaten. Like every other beast, a pig prefers fresh food, whether in a sweet or sour state, from the swill tub. The trough, also, should not be filled from one end when a number of pigs are confined in the same sty. In such a case, the strongest will always get nearest to the feeder and obtain the largest quantity of the thickest food, leaving the thinnest to find its way to the bottom of the trough, where it is greedily consumed by the weakest pigs, which really need the best. It has been frequently urged by old feeders that good food is comparatively thrown away upon fattening pigs if they are not groomed or kept in a thor-

oughly clean state. Some persons have gone so far as to say that a daily grooming is as valuable as an additional quantity of food; and that, moreover, it frequently answers to oil the coats of the pigs, both to prevent annoyance from vermin and to promote a feeling of satisfaction in the animals. Water, again, is most necessary in all cases where pigs are confined; and if it is absolutely pure, so much the better for their health. There is, however, an additional reason why it should be provided in sufficient quantity. In spite of the supposed preference of the pig for mud he invariably enjoys a bath in clean water, when it is provided for him in a basin in his sty; and there is no doubt that cleanliness thus promoted assists in the proper assimilation of the food.

The Sheep Interest Looking Up.

The *New York Times* takes the same view of the sheep business that we do. It says the sheep interest is looking up and promises to recover its lost ground very rapidly. For some reason—probably the folly of shepherds and wool-growers more than anything else—wool varies in price considerably every few years. Wool buyers are not asleep and are continually watching the pulse, as it were, of the wool-growers, and when indications of panic are noticed down go the prices, and then flocks are sacrificed. The recent panic began with some foolish men who declared the reduction of duty of five cents per pound upon wool would ruin the sheep interest. A great scare occurred, and while the sheep interest was not ruined a good many shepherds were, and lost money by wantonly sacrificing sheep for twenty-five or fifty cents each. But their loss was the gain of others, who got the sheep for less than their value. It was a mere change of property, as when a man fools away his money by betting or other gambling. The sheep interest has not suffered; it was merely transferred for a nominal consideration in part, to new hands.

Wool at thirty cents a pound is by no means a losing affair. When one hundred ewes, allowing the safe estimate of an increase of 80 per cent. and losses by death of 10 per cent., will increase to 1,425 in ten years, and will give enough wool each year, even at twenty cents per pound, to pay expenses, the profit of a flock should be quite satisfactory; 1,425 per cent. in ten years is a larger profit than many farmers make and will compare favorably with any other business. So that, on the whole, if there are any persons who are making new ventures in this direction, or any who are fearing to hold on to their flocks at the present time, it may be clear to them that there is margin enough given for a hopeful if not certain success in this staple branch of agriculture.

While considering the subject of sheep-rearing and wool-growing it might be interesting to recall the fact that the prosperity of Ireland was at its height when the manufacture of woolen goods was the principal business. But when the jealousy of her British rulers led to the crippling and final destruction of this prosperous industry the downfall of Ireland began. The skilled artisans left the country and escaped to France and other countries in Europe, where they established themselves and founded the fine woolen trade of France which made French Merino cloth famous over the world. Marshal, and afterward President, MacMahon is a descendant of one of the Irish families who were forced from their homes by the destruction of the woolen business. And Ireland itself—alas, nothing more is needed than to point to its present condition as a proof of the infinite damage which the loss of sheep and her woolen factories inflicted upon her.

Getting Horses Into Condition.

A very good authority on horse management, Col. M. C. Weld, says that "condition" in horses is not fat; it is hard, tough, elastic muscle, which may be actively worked without tiring the horse, without sweating, and without exhaustion of the vital forces, unless the exercise is utterly excessive. A horse out of condition is exhausted by a half mile or a mile trot, comes in puffing and breaks out in a sweat, while one in condition returns all the fresher in appearance for having his blood stirred. What makes the difference? Proper feeding, good grooming, and regular work or exercise, and enough of it. All exercise tires the muscles brought into play—a tired muscle needs feeding. The feed for the muscle is digested food. After any muscle has been taxed it is for some time in a condition to appropriate from the blood the proper elements to build itself up and increase its strength. When a horse is fed immediately before labor the food remains undigested until labor ceases, and then is liable to do harm. All horsemen know that a horse should not have a feed of grain when warm or until he has cooled off; yet, when they start a horse off to any kind of hard work, or road work, before his food has had time to digest he is liable to be injured by it. After labor, as soon as a horse cools off and is rested, the blood, which the use of the muscles drew to the extremities, returns and is ready to take active part in the work of digestion. Then is the time to feed.

To get a horse rapidly into condition, he should be well worked or exercised according to his strength; when brought in, vigorously rubbed off and down, and when dry, cool, and rested, fed. His food should be good hay, when his appetite is sharpest, followed by grain (oats), which in quality should be unexceptionable, and in quantity gauged according to the work he does. Fat will sweat off, muscle will not. A fat horse is liable to indigestion, sunstroke, cold, flatulence (colic), and ever so many other ills, which a horse in condition is not only free from, but if properly fed, and cleaned, and worked, is not liable to get. It is usually poor economy to reduce either food or exercise.

Foot-Rot in Sheep.

In France the milk of lime has been found useful in preventing the spread of this disease, and for the cure of mild cases. So says the *Scottish Agricultural Gazette*. Shallow tanks or trays are placed at the doors of the sheep barn, and the animals, as they go out or in, bathe their feet in the liquid. These tanks are about ten feet long, and of a width suited to the doors of the sheep barn, and the sides are about four inches high, and there are strips nailed crosswise on the bottom to prevent the animals from slipping as they pass through the liquid. Lumps of quicklime are placed in these tanks, which, on the addition of water, slake, fall to pieces, and mixing with water form the milk of lime, which is another name for whitewash. If the sheep on coming out bring litter with them, this should be removed from the tanks by means of a rake. Where the disease has established itself, the sheep must be treated individually. The diseased horn of the hoof must be cut away with a sharp knife, and all ulcers cleansed. A concentrated solution of sulphate of copper (blue vitriol or bluestone) or a caustic ointment of some kind should be applied. A favorite ointment for this disease consists of: finely-powdered blue vitriol, one pound; finely-powdered verdigris, half a pound; linseed oil, one pint; pine tar, one quart. The feet are thoroughly smeared with this, which is not washed off, as a solution would be, by the wet grass.

Remedy for Thumps in Pigs.

Some time ago we published what follows, but is of sufficient value to present it again. F. D. Curtis, a well-known writer on matters pertaining to agriculture, says he has cured thumps with the extract of fox glove (digitalis), by administering one or two drops at a time. One drop is sufficient for a small pig, and it should be given every three hours during the day. Thumps are caused by the palpitation of the heart, and owing to this palpitation the pig has no inclination to suck or eat, and it dies from exhaustion. Digitalis will cure thumps; it will stop the trouble when it first begins with a few doses, and it will cure in the last stages if carefully given as I have stated. I am the only one to my knowledge who has ever had the correct idea of thumps, or that cured a case when fully established. The disturbance with the heart is caused by excessive fat and lack of muscular development. Digitalis acts as a tonic, and helps to obtain a full and natural action of the heart. Exercise will keep off the thumps in the first stages, as it reduces the fat and has a tendency to develop muscular action.

Comparative Strain Upon the Fore and Hind Legs and Feet of the Horse.

A correspondent of the National Live Stock Journal says:

All horsemen of extended experience have doubtless noticed that there is quite a difference among horses in the comparative strain they place upon the fore and hind legs, and consequently upon the fore and hind feet. The greatest weight of the body is upon the fore legs, hence these occupy a perpendicular position while the hind legs, flexed at the hock, are placed at a decided disadvantage. "Knee sprung" comes of this perpendicular support of body, whatever of elasticity there is being in the shoulder and pastern, while behind there are the angles in the bones and joints above the stifle, corresponding and similar to the osseous tissue in the fore shoulder, with pastern the same; and to this is added that very elastic and springing joint, the hock. So, considering the greater width, leverage power, and sharper angles possessed by the hinder extremities, it is not difficult to explain why the hind legs so often go uninjured through a long and laborious life.

Nature has, because their harder service tended to this end, given the horse wide and strong fore feet, as compared to those behind. Yet, with this provision for safety, the fore feet are continually examined for the purpose of detecting ability for work, or evidences of unsoundness, while the hind feet are passed over with indifference. A leg, or foot, which possesses no reserve power—that is, ability to do more work than ordinary prudence dictates should be put upon the animal—is constantly in danger of receiving injury, as, while we may think we are taxing the horse within reason, we may go beyond what his limbs and feet will stand, easily exhausting the reserve power, if there is but little of this. The over-refined leg and imperfectly-formed hoof are devoid of reserve power, hence fail under even a medium amount of service. The increased weight put upon the fore legs, and the severe pounding which comes to the fore feet from this cause, added to the upright position of the leg, is the reason why corns are found in the fore feet, and almost never in the hind feet. Fever in the feet is quite uniformly confined to the fore feet, as well as its natural following, contraction.

A horse is now and then met with whose peculiar formation leads him to do much of his work with his hind legs. An animal so formed wears heavily upon his hind shoes, while the forward shoes are worn but little. When this peculiarity in the wear of the shoes is observed—and this wear is the test—it will be found to be a constant attendant upon the horses action, though hardly perceptible in his manner of going. This peculiarity is quite regularly accompanied by wide hocks, and the entire formation of the hind legs and hind quarters and loin will be found to be strong, in a marked degree. Not all horses so formed behind save their fore feet and legs in the manner referred to, though nothing is surer than that there

will be no especially strong work, to the extent of saving the fore legs and feet, if the hocks be narrow and the loin be both low and weak. This rare faculty of doing the burden of the work with the hind legs will quite certainly insure long-continued safety to the fore legs and feet, and a horse with this peculiar mode of action will be well calculated to preserve the integrity of his forward extremities and feet on hard pavements.

A Remedy for Kicking Horses.

A Scotch farmer, writing about kicking horses, gives his experience: "If a horse appears to kick in the stable from a mere vicious propensity, the best cure is to tie a truss of straw behind him, suspended from the ceiling by a cord, in order to give it full swing, letting the truss hang in a position where the horse's leg is likely to hit it. After the first night a horse is rarely known to kick again.

"The only precaution to be recommended is to put on a pair of knee-caps, as, when struck by the return of the straw, horses are generally so terrified that they spring forward or upwards, and might injure the knees against the manger. This plan, I believe, is well known in Germany; and I have an Irish horse now that could be cured by no other means.

"But at this season of the year, in a stable kept too hot, warm clothing is often a cause of kicking. I had once a mare with an irritable skin in a London stable, always hot during summer nights, and she kicked until her legs were swollen. After trying various other means with no avail, I had her stripped of all clothing both night and day, and she never kicked afterwards, although again clothed on the return of winter."

An Important Clover Huller Law Suit.

The Newark Machine Company of Columbus, Ohio, have just entered suit in the United States Court against Gaar, Scott & Co., of Richmond, Indiana, for the use of certain patents upon the Clover Huller manufactured by the latter, which the Newark Machine Company claim to be infringements on their patents on the Victor Clover Huller manufactured by them. This is an important suit, for, if it is gained by the Newark Machine Company, they can pursue all clover hullers built by Gaar, Scott & Co., and can collect damages from any one using them.

Cut noxious weeds just as the seeds begin to form.

There are two effectual remedies for drouth—rain storms and cultivation. Providence will attend to the rain if you don't cut too many trees down, but you must run the cultivator.

Liquid manure should not be applied to the foliage of growing plants too strong, but it may be put on the ground, even directly around them, with safety, no matter how strong it may be.

The later-sown cucumbers will produce the most pickles, as the crop is grown after the hottest weather has passed. Planted late, they also grow so rapidly that they evade the ravages of the striped bug.

The quantity of meat thrown into the Atlantic is greater than most people imagine. Last year 4,853 animals were thrown overboard, 281 were landed dead, and 317 were so much injured that they had to be killed on landing.

There can be little doubt that fresh manure may not help crops at all; may, indeed, as Professor Shelton says, injure them the first season, though it may act with great efficiency during the second, third, fourth, or even fifth year.

The Massachusetts State Board of Health, from recent investigations, find that there is very little pure honey in that State. That sold in little glass jars is not honey at all, but simply glucose, with just a little honey-comb in it.

In some places where the clover worm has destroyed this plant for several years, a disease has attacked the enemy, and has increased so rapidly that clover fields are fairly free from it. The disease is a fungus growth on the worms, which rapidly destroys them.

Nervous Debilitated Men

You are allowed a free trial of thirty days of the use of Dr. Dye's celebrated Voltaic Belt with Electric Suspensory Appliances, for the speedy relief and permanent cure of Nervous Debility, loss of Vitality and Manhood, and all kindred troubles. Also, for many other diseases. Complete restoration to health, vigor and manhood guaranteed. No risk is incurred. Illustrated pamphlet, with full information, terms, etc., mailed free by addressing Voltaic Belt Co., Marshall, Mich.

BREEDERS' DIRECTORY.

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

HORSES.

M. D. COVELL, Wellington, Kas., for fifteen years a breeder and importer of Percherons. Stud Book and High-grade acclimated animals, all ages and both sexes, for sale.

FOR SALE—On good terms, two imported Clydesdale Stallions, with books of 1885 included. Both sure breeders. Can see their colts. For particulars address Robert Ritchey, Peabody, Kas.

CATTLE.

ASH GROVE STOCK FARM.—J. F. Glick, Highland, DeKalb county, Kansas, breeds first-class THOROUGHBRED SHORT-HORN CATTLE AND POLAND-CHINA SWINE.

Young stock for sale. Inspection and correspondence invited.

WALNUT PARK FARM.—F. Playter, Walnut, Kas., breeds the largest herd of short-horn cattle in southern Kansas. Stock for sale. Cor. invited.

JOHNSON & WILLIAMS, Silver Lake, Kas., breeders of Thoroughbred Short-horn Cattle. The herd numbers thirty head, with a Rose of Sharon bull at head.

OKA WOOD HERD, C. S. Eichholtz, Wichita, Kas. Live Stock Auctioneer and breeder of Thoroughbred Short-horn Cattle, Poland Chinas & Brnzze T'kyes.

DEXTER SEVEBY & SONS, Leola, Ill., breeders of Thoroughbred Holstein Cattle. Choice stock for sale, both sexes. Correspondence invited.

CEDAR-CROFT HERD SHORT HORNS.—E. C. Evans & Son, Prop'rs, Sedalia, Mo. Youngsters of the most popular families for sale. Also Bronze Turkeys and Plymouth Rock Chickens. Write or call at office of Dr. E. C. Evans, in city.

T. M. MARCY & SON, Wakarusa, Shawnee county, Kas. We now have 118 head of recorded Short-horns. If you wish a young bull or short-horn cows do yourself the justice to come and see or write us.

BROAD LAWN HERD of Short-horns. Robt. Patton Hamlin, Kas. Prop'r. Herd numbers about 120 head. Bulls and Cows for sale.

ALTAHAM HERD, W. H. H. Cundiff, Pleasant Hill, Cass Co., Mo., has fashionable-bred Short-horn Bulls for sale. Among them are two Rose of Sharns and one aged show bull. None but the very best allowed to go out from this herd; all others are castrated.

U. P. BENNETT & SON, Lee's Summit, Mo., breeders of THOROUGHBRED SHORT-HORN CATTLE, Cotswold sheep, Berkshire swine, Bronze turkeys and Plymouth Rock chickens. Inspection invited.

POWELL BROS., Lee's Summit (Jackson Co.) Mo., breeders of Short-horn Cattle and pure-bred Poland-China Swine and Plymouth Rock Fowls. Stock for sale. Mention this paper.

W. A. POWELL, Lee's Summit, Mo., breeder of the Poverty Hill Herd of Thoroughbred Short-horn Cattle. Inspection and correspondence solicited.

J. W. LILLARD, Nevada, Mo., Breeder of THOROUGHBRED SHORT-HORNS. A Young Mary bull at head of herd. Young Stock for sale. Satisfaction guaranteed.

CATTLE AND SWINE.

COTTONWOOD FARM HERDS, J. J. Malla, Manhattan, Kansas, Breeder and shipper of SHORT-HORN CATTLE and BERKSHIRE SWINE. Orders promptly filled by express. The farm is four miles east of Manhattan, north of the Kansas river.

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

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

GLENVIEW FARM, G. A. Laude, Humboldt, Kas., breeds Short-horn Cattle and Poland-China Swine. Also Saddle and Harness Horses.

I HAVE 10 young pure-bred Short-horn Bulls, 10 Cows and Heifers a few choice Poland-China Boars and Sows—the latter bred for sale. Send for new catalogue. H. B. Scott, Sedalia, Mo.

H. S. FILLMORE, Green Lawn Fruit and Stock Place, Lawrence, Kas., breeder of Jersey Cattle, Poland-China and Berkshire Swine. Stock for sale.

WOODSIDE STOCK FARM.—F. M. Neal, Pleasant Run, Putnam county, Kas., breeder of Thoroughbred Short-horn Cattle, Cotswold Sheep, Poland-China and Berkshire Hogs. Young stock for sale.

SWINE.

CATALPA GROVE STOCK FARM, J. W. Arnold, Louisville, Kansas, breeds Recorded

POLAND-CHINA SWINE AND MERINO SHEEP. The swine are of the Give or Take, Perfection, and other fashionable strains. Stock for sale in pairs not related. Invite correspondence or inspection of stock.

A. J. CARPENTER, Milford, Kansas, breeder of Thoroughbred Poland-China Swine. Stock for sale. Inspection and correspondence invited.

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.

F. M. ROOKS & CO., Burlingame, Kas., Importer and breeders of Recorded Poland-China and Large Berkshire Swine. Breeding stock the choicest from the best herds in seven States. I have special rates by express. Write.

J. A. DAVIDSON, Richmond, Franklin Co., Kas., breeder of POLAND-CHINA Swine. 170 head in herd. Recorded in A. and O. P.-C. R. Call or write.

ROBERT COOK, Iola, Allen county, Kansas, importer and breeder of Poland-China Hogs. Pigs warranted first-class. Write.

SWINE.

V. B. HOWEY, Box 103, Topeka, Kas., breeder and shipper of Thoroughbred Poland-China Swine. Recorded in Ohio Poland-China Record. My breeders are second to none. Write for what you want.

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

F. W. ARNOLD & CO., Osborne, Kas., breeders of Poland-China Swine. Stock recorded in O. P.-C. R. Combs No. 4889 (first prize) at State fair of 1884 at head of herd. Stock for sale. Satisfaction guaranteed.

POLAND-CHINA SWINE.—Of the most noted strains. My breeders are from herds that can show more prize-winners than any other in the United States. Liberal reduction to persons ordering in next thirty days. Photograph of a few breeders free. Address me before buying elsewhere. Special rates by express. [Mention this paper.] H. H. WALLS, Bedford, Indiana.

SHEEP.

E. T. FROWE, Pavillion, Kas., breeder of Thoroughbred Merino sheep. Rams for sale. Also a few Shropshire Rams.

POULTRY.

400 W. F. B. SPANISH and P. Rock chicks for sale, from my prize-winners. General agent for "Poultry Monthly." Agents wanted. Prepared shell, \$3.00 per 100 lbs. Geo. H. Hughes, North Topeka, Kas.

FAIRVIEW POULTRY YARDS.—Has for sale 200 Chickens, each of P. Rocks, Houdans, L. Brahmans, Wyandottes, B. Leghorns and Langshans. Lock box 764. Mrs. Geo. Taggart, Parsons, Kas.

NEOSHO VALLEY POULTRY YARDS.—Established 1870. Pure-bred Light Brahmans, Partridge Cochins, Plymouth Rocks. Eggs in season. Stock in fall. Write or prices. Wm. Hammond, box 190, Emporia, Kas.

N. E. NYE, breeder of the leading varieties of Choice Poultry, Leavenworth, Kansas. Send for circular.

EGGS FOR SALE.—From Light Brahmans, Buff Cochins and Plymouth Rocks, 13 for \$1.75; 26 for \$3. Also Pekin Duck eggs, 11 for \$1.75; 22 for \$3. Also Emden Geese eggs 6 for \$2; and Bronze Turkey eggs, 12 for \$3. W. J. McComb, Waveland, Shawnee Co., Kas.

PLYMOUTH ROCK CHICKENS. Eggs for hatching, from the finest breeding pens in the United States. Fowls have taken first premium wherever shown. Eggs safely packed for shipment. Setting of 13, \$2.50. Fowls for sale in the fall. Address E. W. Stevens, Sedalia, Missouri.

MISCELLANEOUS

PROSPECT FARM.—H. W. McAfee, Topeka, Kas. For sale cheap six registered Short-horn bulls, 1 to 2 years old. Also, Clydesdale horses.

OSWEGO TILE FACTORY.—H. C. Draper, Prop'r., Oswego, Kas. Best shipping facilities over Missouri Pacific and Frisco railroads. Write for prices.

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

REPUBLICAN VALLEY STOCK FARM.—Henry Avery, Wakefield, Clay Co., Kas., breeder of Percheron horses. Stock for sale. Send for catalogue.

MERINO SHEEP, Berkshire hogs and fifteen varieties of high-class poultry of the best strains. Bucks a specialty. Harry McCullough, Fayette, Mo.

Goodwin Park Stock Farm, BELOIT, : : : KANSAS.

ABERDEEN-ANGUS CATTLE!

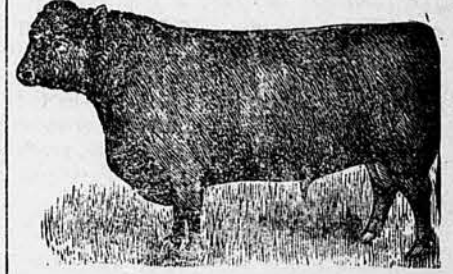
A few tip top YOUNG BULLS, at low figures and on easy terms. We offer a few CHOICE FEMALES from our show herd for sale for the first time. Two well bred SHORT HORN COWS at bargain. Two standard bred

HAMBLETONIAN STALLIONS,

at bed-rock figures. There are few better-bred Trotters in Kansas. GRADE ANGUS and GALLOWAY cows at farmers' prices. Send for Catalogue.

J. & W. GOODWIN, JR.

F. MCHARDY



Breeder and Importer of

GALLOWAY CATTLE,

Emporia, : : : Kansas.

My herd numbers over one hundred head, consisting of the best and purest strains of blood. It is composed of animals bred by the most noted breeders of Scotland—the Duke of Buccleuch, the Earl of Galloway, Thos. Biggar & Sons, Cunningham, Graham, and others. I have a herd of young bulls, fit for service, sired by the noted bull Macleod of Drumlanrig; also thirty high grade females of different ages that I will sell reasonably. Time given to suit purchaser, if desired.

Correspondence.

From Ellsworth County.

Kansas Farmer:

So far as wheat is threshed in the east end of this county and the west end of Saline and McPherson counties it is poor, will yield from five to ten bushels to the acre, and the large majority will have no grade. Oats are not yielding over thirty bushels to the acre. The weather is hot and dry; much of the ground is ready for fall sowing of wheat. Pastures are drying up. Stock is healthy, except hogs, some of which are dying from a disease resembling cholera. Corn is splendid, and as fine a crop in quantity and quality as has ever been raised in the county, much of which is now being put in shock. W. S. GILE.

Venango, Ellsworth Co., August 25.

Shocking Corn.

Kansas Farmer:

Your paper is just what every farmer in Kansas needs; for no matter what information we need, we have only to look through the back numbers and it is generally there, and if not we can get it for the asking.

But you got off the track last week over that cornfodder. You advise to put it up in shocks from seven to ten hills square. I have some objections to that. First, a small shock won't stand wear as well as a large one; second, too much of it gets weather beaten; third, it is as much trouble to get a small shock out of the snow as it is a large one.

I have tried 10, 12, 14 and 16 rows. It is a little more trouble to put up 16, but when you get it there, and get it securely tied, there is a day's feed for five cows; and if that 253 hills was put up in five shocks there would be so much spoiled that it would not feed more than three or four, besides being more disagreeable to haul in wet or snowy weather.

With respect to the condition of the corn when cut, it depends upon what you want it for; if you want to sell the corn, you want it to get pretty ripe and put up a little extra, as the fodder is not so good; but if the corn is wanted for feeding cattle then cut it pretty green, and it makes a feed that is hard to beat. A. W. PARSONS.

Meriden, Jefferson county.

Time to Sow Wheat.

Kansas Farmer:

When shall we sow our wheat is a question that will come up very often this fall. The experience of wheat raisers here is so varied that we hardly know what to do. Years ago we had a light crop of winter wheat, and the opinion then was that we were sowing too late; since then we have been sowing from the 10th to 25th of September. This year all early sown wheat was poor; half of it was plowed up, while the late sown is yielding from twelve to twenty-five bushels to the acre. One of my neighbors put in some wheat on ground that had been tilled fourteen years and was in oats last year; it was early plowed, and had so much green oats on the ground that he could hardly drill it with a press drill; sown October 1, and where the most oats was the wheat was the best, and the whole piece averaged fourteen bushels. Another piece near by, sown late in rye and oats ground, was as heavy again on the latter, and eighty acres that was put in on breaking so late that it hardly came up in the fall turned out at harvest to be the best wheat in the township. Now this fall most of the wheat will be sown late, whether it is best or not. All wheat sown in cornfields made an average crop, but generally it is a failure one-half of the time. Even rye has failed once or twice sown in cornfields in the last twelve years. Although wheat has done so well on oats ground, four years ago it was a failure.

The usual amount will be sown this fall in this county, and a great deal of it will be put in with a press drill. We have no difficulty in using it with two common horses.

The more experience I have with wheat, the less I seem to know; for what proves a success one year, the same way of putting it in makes a failure the next. I have really only settled one thing, and that is, July and the first of August is the time to plow for winter or spring wheat. E. W. BROWN.

Vinitia, Clay Co.

Republican Valley Fair.

Kansas Farmer:

The fair held at Concordia last week is regarded a success by the managers of the association, the greatest attractions ever known in the speed ring at this place. In fact the main object and force of the whole fair seemed to be directed to the attraction of the speed ring especially, to make the initial meeting of the Kansas Pacific Circuit a success. I think they succeed in this particular in presenting unusual attractions for a county fair; yet it was at the expense of all the other departments which go to make a successful fair and to encourage industries which are the source of wealth and prosperity of our State. The exhibits of live stock, poultry, dairy and farm products was not up to the displays of former years. It was quite evident that the association lacked the co-operation of farmers and breeders. The Goodwin Park Stock Farm, of Beloit, furnished the principle attraction in the live stock department. A representative herd of Aberdeen-Angus cattle from this herd, in charge of J. S. Goodwin, attracted favorable comment from all. The herd was given over, one-half the premiums for beef breeds not to compete. The few hogs on exhibition were indeed excellent animals. The model pair of Chester White pigs shown by M. V. Shaffer, constituted the chief attraction and novelty of the swine department. The draft stallions with seven of their colts was a useful and creditable showing for the horse department.

The display of farm machinery was the best ever made at this place. L. A. Bartlett, an enterprising dealer at Concordia, certainly deserves credit for the extensive exhibit of farm machinery so effectively shown.

The association would have had the best fair ever held in the Republican Valley, had the same effort with one-half the amount of premiums been offered to all the other departments combined, that was offered in the speed ring. H.

Concordia, August 29, 1885.

Illinois Stock Law.

Kansas Farmer:

The new law in Illinois relating to contagious diseases among domestic animals makes it the duty of the Board of Live Stock Commissioners to quarantine premises or farms where any such diseases exist. It is also their duty to prescribe regulations necessary to prevent such diseases from being communicated in any way from the premises or farm quarantined.

At the meeting of the board in Springfield this week the Commissioners have been wrestling with the problem, "What is efficient quarantine?" The fixing of rules or regulations necessary to prevent the spread of disease has also engaged much of their attention.

The framers of the present law doubtless felt that they had accomplished a grand work when their carefully prepared bill became, finally, the law of the State. But it is very evident the Commissioners feel that the work of controlling contagious and infectious diseases among domestic animals is only begun. It is not the less evident that the present board will prove themselves equal to the task given them. The members are awake to the responsibility resting upon them, and they are conscious of the fact that there is a new line of work, one in which at least little has heretofore been done in other States.

No event of greater promise for good to the live stock interest in Central Illinois has occurred in many years than the recent importation of Cleveland bay horses made by Strickler Bros., of Springfield. The six stallions brought over show wonderful uniformity in build, style and action, and convince at first sight all who see them that the Cleveland Bay is a well established and superior breed. PHIL THURFON.

Springfield, Ills.

Topeka Stock Yards Sales.

The representative sales of live stock at the Topeka stock yards for the week ending Saturday, August 29: The sales have not been very satisfactory to many who expect the top market prices for inferior animals. "Scrubs" and stock in poor condition find scarcely any demand at any price. 12 fat hogs, averaging 270 lbs., sold at \$3.75; 100 fat sheep, averaging 93 lbs., \$2.77; 11 fresh cows with calves sold from \$30 to \$35; 9 fat

steers, 710 lbs. average, sold for \$2.75; 65 fat cows with the extreme weights of from 705 to 1310 pounds, so. d. at prices averaging from \$2.50 to \$3.20.

Gossip About Stock.

The receipts of live stock at the Kansas City Stock Yards were 432 horses and mules, 2,872 sheep, 13,409 cattle and 83,665 hogs.

At the State Agricultural College at Manhattan may be seen the skeleton of Lord Liverpool, the noted Berkshire boar owned by N. H. Gentry, Sedalia, Mo., former one of the attractions of the college museum.

For the month of July there were twenty head of cattle on the eastern division of the Santa Fe railroad killed by being run over. For these cattle the railroad paid \$752, and informed their engineers that more diligence must be exercised to prevent the killing of stock.

Parties desiring choice Chester White pigs should correspond with W. W. Waltmire, Carbondale, Kansas. His card may be found in this issue. He desires that all breeders of Chester White swine meet with the State association at the Bismarck fair, September 10.

W. P. Higinbotham, Manhattan, writes: "Our fair just closed was quite a success. During the week I sold some fine handsome young horses. One a three-year old by Winchip, by Robert McGregor, for \$500, to Col. H. H. Stanton of the Union Pacific hotel, North Topeka, Kansas."

Kinsley Mercury: The hog crop in Edwards county is large this year, and there is an abundance of corn raised to fatten them. This county will send several car loads of fat hogs to market, and will also supply the home demand. The hog crop, since it is demonstrated that Edwards county is a first-class corn growing county, will hereafter be a great source of revenue.

Now is the time to secure the best Berkshire swine. A. W. Rollins, Manhattan, Kansas, has a very interesting advertisement in this issue. It will pay you to call and see his establishment. As cheap as pure bred swine can be secured now, there is no reason why any one should longer raise runts or razor-backed hogs. Mr. Rollins will offer special bargains for the next few days. Here is an opportunity to get some of the best.

It is pleasing to note that at the opening of the fair season that the reputation of Kansas fine stock is being improved in a marked degree. The few show herds out this season are a credit to this or any State. The enterprising breeders have inaugurated an aggressive campaign against the "scrub." The Blue Valley Herd of Short-horns of W. P. Higinbotham and the Holstein-Friesians of J. K. Wright and G. W. Harrop added fresh laurels to the beef and dairy industries at the Manhattan fair last week. The Aberdeen-Angus shown by J. S. Goodwin, of Beloit, scored a victory for the beef breeds at Concordia last week.

Inquiries Answered.

MILDEW ON GRAPES.—Sulphur dusted on the vines where they are wet with dew or rain, is good to prevent mildew on grapes.

Can I successfully graft or bud Concord grapes on to a wild grape vine?

—Yes the writer of this performed that interesting experiment once, and only once.

ENSLAGE.—Ensilage is green forage preserved in a pit called a silo. The silo is usually made under ground, as nearly air-tight as possible and is securely covered and weighted down.

IRON WEED.—As to the best way of destroying this weed, we see it stated in the Oskaloosa Independent "that if the weed be cut off two inches below the surface with a sharp hoe or spade, or other implement, it will die. The plant is similar to the dahlia, with the buds of the new growth around the collar, and if they be cut off the weed is bound to die out. The growing season is as good as any in which to do the work. Capt. Insley of this place has an implement to destroy plantain which would be a useful weapon against other weeds. It is simply a slightly curved blade of iron about two inches wide, inserted in the end of a heavy pole, something larger than a hoe handle, and it is plunged forward into the soil beneath the roots and the weed hoisted out."

"O, Lor' Hit 'Im Again!"

In the early days of Methodism in Scotland, a certain congregation, where there was but one rich man, desired to build a new chapel. A church meeting was held. The old rich Scotchman rose and said: "Brethren, we dinna need a new chapel: I'll give £5 for repairs."

Just then a bit of plaster falling from the ceiling hit him on the head.

Looking up and seeing how bad it was, he said: "Brethren, its worse thon I thought; I'll make it 50 pun'."

"Oh, Lord," exclaimed a devoted brother on a back seat, "hit 'im again!"

There are many human tabernacles which are in sore need of radical building over, but we putter and fuss and repair in spots without satisfactory results. It is only when we are personally alarmed at the real danger that we act independently, and do the right thing. Then it is that we most keenly regret because we did not sooner use our judgment, follow the advice born of the experience of others and jump away from our perils.

Thousands of persons who will read this paragraph are in abject misery to-day when they might be in a satisfactory condition. They are weak, lifeless, full of odd aches and pains, and every year they know they are getting worse, even though the best doctors are patching them in spots. The origin of these aches and pains is the kidneys and liver, and if they would build these all over new with Warner's safe cure as millions have done, and cease investing their money in miserably unsuccessful patchwork, they would be well and happy and would bless the day when the Lord "hit 'em" and indicated the common sense course for them to pursue.—London Press.

A Remedy for Cattle Diseases.

A representative of this paper had a little talk with that veterinarian of North-western Kansas, Dr. M. V. Price, during the fair at Concordia last week, concerning his great specific bovine vaccine virus, which he discovered over three years ago and has been using with marked success against the various dreaded cattle diseases, including black-leg. He has abundant testimonials from prominent men in Cloud, Republic and Jewell counties, to whom he refers with pride. Dr. Price makes a specialty of cattle diseases, and guarantees that all cattle vaccinated with this method are proof against this terrible malady so destructive to the interests of stock men. During the last three years he has been called to vaccinate many herds, and claims to save those already infected and prevent the further spread of any infectious and epidemic diseases incident to cattle. For full information, address, Dr. M. V. Price, V. S., Concordia, Kansas.

One Cent Per Mile Only.

Only one cent per mile to the Great Bismarck Fair over the Union Pacific railway.

The Sunflower Fair.

Kansas is the Sunflower State, and the Great Western National Fair at Bismarck from September 7 to 12, is the sunflower fair, larger, brighter and more radiant than any other.

One Fare for the Round Trip.

It will cost you only one fare for the round trip to attend the Great Western National Fair at Bismarck Grove, Lawrence, Kansas, September 7 to 12, over the A., T. & S. F. and Southern Kansas railroads.

The Kansas City Inter-State Fair, September 14 to 19, promises to be the great exposition of the West this year. More and better attractions in the speed ring, live stock, horticultural, agricultural, mechanical and in all the departments. Be sure to attend the fair. See add this week.

Absolutely Magnificent.

The mammoth live stock display, the great agricultural and horticultural exhibits, the largest agricultural implement show, the fastest, biggest and most exciting races all combine to make the Western National Fair at Bismarck Grove, September 7 to 12, absolutely the most magnificent exposition ever seen in the West.

When to Sow Wheat Seed.

We have an interesting letter this week from E. W. Brown on the subject above named. Mr. Brown is an experienced farmer, a very intelligent man, one that is trying to keep fully even with the times. His opinions are entitled to much respect. When he says that with his greater experience in wheat-raising his knowledge is or seems to be less, he states a general truth, though not very precisely. He does not mean that the more he learns the less he knows, for that cannot be true; but what he really means, as we understand him, is, that the greater his experience and knowledge, the more clearly he sees that there is a great deal yet to be learned; or, in other words, that what we have done and what we are doing is largely experimental, and that outside of exact sciences, while we are learning a great deal, the truth is that we know very little that we can always use wisely.

We desire to call particular attention to this fact, not to criticize, but that all of us may profit by the thought. The point raised by Mr. Brown is a good one. He shows that while early sowing of wheat, that is in September, has been better in results, generally, yet late sowing has been better occasionally, as was the case last year, and hence there is no certainty about it. Now, let us ask, has not that been the experience of farmers in this country generally ever since the beginning? The writer of this can go back fifty years, and he remembers that among the best farmers of Pennsylvania the rule as to sowing wheat was from the 10th to the 20th of September, and after frost. Some began as early as the 5th and some finished about the 25th. Occasionally a case of late sowing was reported, but it was not usually a fruitful work. It happened, however, that wheat did not yield an average product always, though sowed at the usual time, and it happened about as frequently that late sowing did well. In general, the regular procedure was followed, and in general—say four years in five, there was no complaint; and as between the regular and the irregular method, the former succeeded nine years in ten. And the experience of farmers in Kansas, in this respect, has been similar to that of the Pennsylvanians. With us, as Mr. Brown shows, the earlier and regular time of seeding has been generally better in results. Col. Caleb May, a pioneer farmer of Kansas and one of the most successful wheat-growers in the State, always got his wheat seed in between the 10th and 25th days of September, if possible, and it was possible nearly every year. He raised wheat in northern Kansas and in southern Kansas; his rule was the same in both regions, and his success was almost uniformly good. We have observed this matter very closely, and almost invariably the largest crops of wheat grew from seed sown in the first half of September. We have seen good wheat from August sowing; so also, of October, and even November, and in one instance in January, when the seed did not sprout until spring; but generally the good crops come from seed sown in the regular time.

While this does not prove everything that a farmer would like to know, and while it does not prove anything that may be certainly and safely relied upon as to future operations, does it not prove something? We all know that in past time, within our experience, at least, the seasons have come and gone, four of them every year, and with a regularity not absolute, but such as that with reference to the years which we remember, we are willing to say that

generally a certain rule has been followed. Generally speaking, in Kansas, when the first day of April is with us the ground and temperature are about ready for the planting of corn; but it is not always that way. Generally speaking, prairie grass is well advanced on the first day of May, but not always so. Take any single fact common to the years and it is found that in general a particular course is followed.

We have no way of judging the future but by the past. All past years were once future years. Is it not better, then, to act on our experience and observation of things that have taken place within the reach of our memories and the memories of other men whose knowledge has descended to us? If experience has been that generally it is more profitable to sow wheat at a certain time, is it not wise in us to follow the established rule as to the future? Such is the conclusion of the writer of this article. The exceptions to general rules are sufficiently numerous to shake all faith out of us as to certain results in time to come. We are all in the dark absolutely as to the future, so that when doing our best we are blind, totally blind, and can take courage only from our faith in the stability of the universe of God.

It is better, then, as the matter appears to us, that farmers should sow their seed regularly at that time of year when, as experience has shown, we may reasonably expect the best return, and so mix and vary our methods as that we shall not in any year be compelled to rely wholly on any one crop. Let the ground be in the best possible condition and the seed put in well about the 10th day of September, and in four years out of five, we will not be disappointed as to time. If the growth is too rank in November, pasture it down in dry weather.

Late Patents to Kansas People.

List of patents granted to citizens of Kansas for the week ending Tuesday, August 25, 1885, compiled from the official records of the United States Patent office, expressly for the KANSAS FARMER, by Herring & Redmond, solicitors of patents, No. 637 F street N. W., Washington, D. C., of whom information may be had:

No. 325,200—J. H. Dymond, assignor to himself and W. W. Dymond, Carbon-dale, car coupling.

No. 325,169—F. H. Harman, Holton, insecticide wash.

No. 324,870—E. A. and M. C. Miks, Halstead, stock-watering device.

No. 325,140—R. F. Wilcox, Augusta, fence.

TRADE MARKS.

No. 12 535—A. Richards & Co., Fort Scott, baking powder.

Attention is called to the card of Dr. D. L. Snediker, Emporia, who advertises to cure rupture. He has certainly met with great success. He is well known at this office and requested the KANSAS FARMER to announce that he will be at the Bismarck fair, also at the re-union. Consultation free.

Kansas has but one great fair this year. We refer, of course, to the grand exposition at Bismarck.

All Kansas will contribute to the wonderful collection of agricultural products at the Bismarck fair.

The display of stock at the Bismarck fair will exceed anything of the kind ever before known in Kansas.

All previous exhibitions excelled and all other fairs placed in the shade by the Bismarck fair—September 7 to 12.

The most valuable and interesting farm and family journal published in the West the remainder of 1885 for 25 cents.

Horticulture in Butler County.

In the last issue of the El Dorado Republican we find a report of a horticultural meeting at Whitewater, in Butler county, from which we gather some interesting points.

As to leaf curl in peaches, Mr. W. H. Litson said that early in the season the prospect for peaches was good; the blossoms were abundant, the trees healthy, but later on a number of his early varieties exhibited signs of decay. The leaf curl and other causes had made the crop very unsatisfactory.

A. J. Owen said he had 650 peach trees from two to seven years old, of budded fruit. The Amsden, Alexander, Heaths Early and Early Rivers were all more or less affected and produced unsatisfactorily and he had almost come to the conclusion that raising peaches for profit was a failure in Kansas. He had cultivated the trees and left them alone and still the results were far from good. A considerable per cent. of his trees had died, the roots decaying before the tops. Hard freezing the possible cause.

Mr. Fenton said a number of his trees died; thought they had frozen during the winter; did not think his trees overproduced last year; had concluded that to get good results the trees should be thoroughly cultivated and mulched; was of the opinion that peaches would not prove a very great success.

Charles Mordhinweg said the borers had affected his trees. He had a thrifty orchard but borers went all the way round, killing a number of his best trees.

Dr. Snyder suggested that the insect which produced the leaf curl caused the leaves and first foliage to fall, but his trees leaved out again. Even the cottonwoods were defoliated this year.

Mr. Robinson said the leaf curl is new to this country. They had had it further east for a number of years. It was caused by a small fly laying an egg or eggs under the leaf. Because this had proven a misfortune this year was no reason why we should have it next. He had noticed the box elders attacked with the leaf curl. Overbearing injured some peach trees, the borer others, while the leaf roll killed others. In reality we ought to congratulate ourselves that we got through so well. One-half of all the trees in Hancock county, Illinois, were dead. Thought we were in our infancy in connection with the growing of fruit and would in time overcome all obstacles. He said the Early Barnard was a peach of great promise; a good honest, steady bearer, and one that should be more largely grown.

Mr. Fenton wanted to know the effect of planting peach and apple trees alternately. Dr. Snyder said the practice was condemned; better have the trees separate. Alternating trees had proven to be bad policy; the peach robbed the soil of its vitality.

Mr. Litson called attention to the resolution recently passed by the State Horticultural Society which he thought should be endorsed and given publicity by the Butler county organization. The resolution was read and universally adopted as follows:

Resolved, That it is of the opinion of the Kansas State Horticultural Society that none of the Russian apples are worthy of cultivation except the Dutchess of Oldenberg, Red Astrachan, and Tetofski, and that these should only be planted sparingly for family use, these varieties being easily obtained at our home nurseries.

Mr. Owen recommends the Early Harvest for summer, Autumn Swar and Penna Red Streak for fall; Ben Davis and Wine Sap for winter. Specimens of the Swar exhibited which Mr. Robinson pronounced the Winter Swar.

Anderson County Fair.

Special correspondence KANSAS FARMER.

The Anderson County Fair Association has just closed its thirteenth annual fair, and from all indications manifested, it has been one of marked success, so much so that the association purpose erecting new and additional buildings ere another season rolls around.

The exhibits were all good and deserve high commendations. Those who have, and do not make an exhibit, can never realize the value of efforts put forth by others to advance the interests of the county in which they live; neither can they appreciate the good that may accrue therefrom. Johnson Bros., of Garnett, exhibited thirty-five head

of horses, including mares and colts, and were successful in securing twenty premiums. "Hercules," a well developed, jet-black, 1800-pound horse, took first premium on sweepstakes for all work; "Billard" took first on draught, also, first on horse showing best five sucking colts; and "Passe Avant" took first on three-years-old, being a dark brown horse with heavy mane and tail. All of the above are Percheron-Norman stock and that, too, of the choicest, and Johnson Bros., being a new firm, our desire is that success may crown their efforts.

Walter Latimer, formerly of the firm of J. S. Latimer & Sons, of Abingdon, Ills., has a herd of forty head of thoroughbred Short-horns, fourteen of which he exhibited at this fair.

J. A. Davidson, of Richmond, Kas., has seventeen head of Poland-China swine on exhibition, and received the following premiums: First on boar "White Ear," one year and under two; second on boar six months and under one year; first on sow two years and over; first on sow "Broad Back," one year and under two; first on litter of pigs. Sow, "Black Daisy," took first on sweepstakes; all are of pedigree stock O. P. C. R. Mr. D. was also awarded first premium on best herd or lot of swine.

J. R. Killough, of Richmond, Kas., exhibited five head of swine, receiving second premium on boar, "Dandy," one year and over; first on boar six months and under; and first on sow six months and under. All his stock are pedigree O. P. C. R.

HORACE.

August 20, 1885.

N. W. Ayer & Son's American Newspaper Annual for 1885 contains a carefully prepared list of all newspapers and periodicals in the United States and Canada, arranged by States in geographical sections, and by towns in alphabetical order. (Pages 19 to 333). In this list also is given the name of the paper, the issue, general characteristics, year of establishment, size, circulation, and advertising rates for ten lines one month. Also complete lists of all the religious or agricultural periodicals, of medical, commercial, scientific, educational, or any other of the class publications, as well as all publications printed in foreign languages, can be obtained from it. (Pages 707 to 746). It will show you at a glance all the newspapers published in any one county in the United States and Canada. (Pages 389 to 702). Price, \$3, carriage paid. Philadelphia, Pa.

The Iowa State Veterinarian has been ordered by Governor Sherman to visit Pottawatomie and Harrison counties for the purpose of examining into the death of a large number of cattle from Texas fever. Several large herds were shipped to these counties some weeks ago, represented to be Kansas cattle, and the native cattle which came in contact with them have now begun to die with every symptom of Spanish fever; and the native cattle along the trail where the strangers were driven are also stricken, showing apparently that the strangers were Texans.

Are you interested in keeping abreast of the times in the essential matters pertaining to the farm. Then try this paper the balance of the year for 25 cents.

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IT WILL BE AN ADVANTAGE to always mention the KANSAS FARMER when writing to advertisers.

The Home Circle.

The Bottom Drawer.

In the best chamber of the house,
Shut up in dim uncertain light,
There stood an antique chest of drawers,
Of foreign wood, with brasses bright.
One morn a woman, frail and gray,
Stepped tottering across the floor;
"Let in," she said, "the light of day;
Then, Jean, unlock the bottom drawer."

The girl, in all youth's loveliness,
Knelt down with eager, curious face;
Perchance she dreamt of Indian silks,
Of jewels, and of rare old lace;
But when the Summer's sunshine fell
Upon the treasures hoarded there,
The tears rushed to her tender eyes,—
Her heart was solemn as a prayer.

"Dear grandmamma!" she softly sighed,
Lifting a withered rose and palm;
But on the elder face was naught
But sweet content and peaceful calm.
Leaning upon her staff, she gazed
Upon a baby's half-worn shoe,
A little frock of finest lawn
A hat with tiny bows of blue.

A ball made fifty years ago,
A little glove, a tasselled cap,
A half-gone long-division sum,
Some school-books fastened with a strap.
She touched them all with trembling lips;
"How much," said she, "the heart can
bear!"

Ah, Jean, I thought that I should die
The day that first I laid them there.

"But now it seems so good to know
That throughout all these weary years
Their hearts have been untouched by grief,
Their eyes have been unstained by tears!
Dear Jean, we see with clearer sight
When earthly love is almost o'er;
Those children wait me in the skies
For whom I locked that sacred drawer."
—*Exchange.*

Eternity, Eternity!
How long art thou Eternity!
Yet onward still to thee we speed
As to the fight the impatient steed,
As ships to port, or shaft from bow,
Or swift as couriers homeward go;
Mark well, O man, Eternity!
Eternity, Eternity!

Life is a weary interlude,
Which doth short joys, long woes include;
The world the stage, the prologue tears,
The act vain hopes and varied fears;
The scene shuts up with loss of breath,
And leaves no epilogue but death.
—*Bishop Henry King.*

Has Time to Read.

Claribel says that she thinks it is Bramble-bush who said that she did see why women could not get time to read, all of which is true, and Bramblebush is quite ready to repeat it.

In reply I will say that my family generally consists of five, three of whom are children, the youngest not quite two years of age. That during the last year I have done all the cooking, washing and ironing, all of my sewing by hand, and mending, contributing to three papers, and done the churning, besides having company and three extra men to cook for during the haying months.

Now, I do not tell this because I think that I am smart—as I do not think so—but merely to show Claribel that when I wrote those words I knew what I was talking about.

There are many times when we can read. Have a paper or book ready, and when you are getting baby to sleep read a little, and there are many other odd minutes when we can read. Of course if there is much sickness in the family it is different; but when you are all well, I repeat, that a woman can and should find time to read.

BRAMBLEBUSH.

A Spanish Cigar Factory.

A recent letter from Seville describes the government cigar factory of Spain, 700 feet long and almost as wide, very dirty and in the vestibule 250 young girls making cigarettes, all talking as loud as they want to; 100 girls in the next room doing the same, and on the next floor 3000 women as close as sardines in a box, in a single room, making cigars, some having their babies with them not a month old, and dogs lying on the tobacco stems. The women were divided up into sevens at each table, three on each side and the mistress at the top. Around each table were shelves against stone pillars, on which lay children's shoes, socks and clothes. There were stone jars of water here and there for drinking, and the air was stifling, and the buzz of conversation only broken by the wail of the babies. The flooring was dilapidated and it was possible for an incautious visitor to fall through. Two other side apartments 100 feet long were both packed with laborers. The factory consumes 10,000 pounds of tobacco a day, and employs over 5,000 persons, who receive fifty cents a day for twelve hours' work.

Health Hints.

"Blessings on the man who invented sleep," says Sancho Panza, but what shall we invoke upon him who "invented" insomnia? Happy indeed those who have never retired to rest, expecting refreshing, healthful slumber, only to find themselves in that condition aptly expressed by the phrase "as wide awake as an owl!" Medical works recognize sleeplessness as a disease, and prescribe for it accordingly. When medicines attack the cause, and cure by removing it, they are invaluable; but when relief is given by the use of soporifics, as chloral, morphia and the like, the sleep is not natural, and hence not fully restorative, while every time we resort to such means the dose must be larger, and the effect upon the system is more pronounced. I have suffered much from insomnia, and have tried many things to coax coy sleep to pay me a visit, but have studiously avoided the use of soporifics, believing it is better to be wakeful than stupified in order to sleep. I have tried watching a flock of imaginary sheep, each having a pedigree tracing back to the "original importation from Spain," jump over a pair of imaginary bars, saying the multiplication table backward, and repeating nonsense rhymes. I have arisen to a midnight lunch of whatever was to be found on my premises, oranges, apples, grapes or candy; have applied a wet towel to the base of my alleged brain, taken a sponge bath, or sat down to read the dullest book I could find (having generally the best success with something of McCarthy) with varying results in wooing Morpheus. Usually the sponge bath proves most efficacious. Sometimes, after mental excitement, a dose of Gelsemium—homeopathically prepared, three drops of the "first dilution" in a little water—will "send me off."

But not long ago, out of a learned treatise on nerves, brain, etc., etc., I sifted a bit of practical information that has helped me very much. If we observe the position of the eyes during these fits of wakefulness we will find that though the lids are closed, the eyeballs are turned upward, as if looking at some object above their level, forward out-look. The breathing, too, is usually short and hurried. Now, if by an exercise of will power, we can turn the eyeballs down instead of up, and at the same time take deep, full, regular respirations, as we do when sleeping, we produce a condition favorable to sleep and "she's got to come, she can't help it." I have tried this a number of times, and always, so far, successfully. The only trouble is to concentrate the mind on the process of going to sleep; other thoughts must be banished. I do not think it takes over five or eight minutes, perhaps even less, of this regular breathing with the eyes turned downward before "first you know you don't know nothing." It is best to try this method at once, as soon as we understand a wakeful night has been laid out for us, concentrating the mind on the business of going to sleep. The "philosophy" of it is that it is an excess of blood in the brain which prevents sleep. The slow and steady breathing, exhalations and inhalations about equal, remove the blood from the brain, which, thus relieved, permits sleep.

An excellent remedy for weak and inflamed eyes, when the veins are injected, lids reddened, and lashes matted after sleep by a discharge from the eyes, is simple salt and water. It is also good for dimness of vision, a condition we describe as having a "blur" before the sight. Bathe them twice or three times daily in water made perceptibly salt. The sensation is not unpleasant, as one would suppose; tears, you know, are saline. Some prefer hot water to cold, but it is the salt that hath the virtue. A physician of this city says oculists would have less business and people stronger eyes, were this simple restorative more generally known and used. Try this at least before you decide you must wear glasses, for these, once put on, can seldom be dispensed with afterward. When (n) is conscious sight is somewhat impaired, instead of rushing off to an oculist to get "fitted," rest the eyes, give up all work that tries them. Sight is the most precious of our senses; we cannot afford to risk its loss for present gratification; nor to wear glasses the rest of our lives because of a little weakness, when rest and simple salt and water will cure.

If you have bunions which make life a misery, get half an ounce of prime tincture of *Thuja occidentalis*, and dilute it with one-fourth its bulk of water. Apply night and morning; and if very bad saturate a bit of cotton and bind it over the joint before retiring. It will relieve the soreness and effect a cure, unless the bunion is constantly aggravated by a tight shoe. The same remedy will alleviate the misery of corns, but will not always cure them. It is almost invariably a cure for bunions, however.

My favorite remedy for cold and sore throat is the homely one known to my grandmother, red pepper tea. Not the cayenne pepper of commerce, which is principally brick dust and Venetian red, but the red garden peppers raised for pickles. Make the tea strong, very strong, very hot and very sweet; take half or two-thirds of a coffee cupful before retiring and wake up pretty nearly well next morning. Be a little careful about taking cold again.—*Beatrix, in Michigan Farmer.*

The first car load of cherries ever shipped from San Francisco to an Eastern market was despatched on the 20th of June. The fruit came from Alameda county. Eight tons of cherries were put up in small baskets

of five pounds each, and these were put into crates, through which the air circulates freely. The car was also open at each end, the ends being protected with wire gauze.

Mad Stones.

HARMOOTOWN, Miss.—Some time ago I saw in an issue of your paper, an article from some one wishing to know if there was such a thing as a mad-stone; and if so, did it possess the virtues ascribed to it. Mr. Ben Milam, now of Waterford, Miss., and once a citizen of this immediate neighborhood, has one of these stones, which, I was told by one of the family, had been applied to the human subject bitten by rabid animals more than 1,200 times, with but a single failure—the patient refusing to have it applied as thoroughly as it should have been. Three instances have come immediately under my observation when relief from the poisonous effects of rabies was obtained. This was many years ago, and all are free from that terrible disorder and have no fears whatever of future trouble. Two of these cases were relatives of mine—a sister and a nephew—one of whom was severely bitten by a dog known to be rabid, for every animal bitten by him went mad and died. I have examined this stone of Mr. Milam; it is about the size of a small guinea egg—very porous, and resembling bone, somewhat externally. Years ago it was broken into many pieces, but, being considered a "jewel of high price," Mr. Milam had it securely put together with silver bands. Patients came from "far and wide" to have it applied. It is applied to the wound, where it adheres firmly until it fills itself with the fluid it extracts, when it falls off. It is then placed in a basin of warm water, and in a short time cleanses itself, discharging a greenish-looking fluid. This operation is continued so long as it will adhere, when the patient is insured safety. I know that many, and especially the medical fraternity, think these stones are humbugs, and I confess I was once of that opinion, but facts and convincing evidence of the virtues of this stone have led me and hundreds of others to have implicit confidence in its ability to prevent hydrophobia.

As I am writing this communication for the benefit of an inquirer, I will add by way of postscript, for the benefit of another, that if he will place a branch of either sweet gum or sumach under the headstall of the bridle, the ear or May fly will vanish almost instantly and trouble his animal no more. This knowledge will, perhaps, be of especial service to those farmers living in or adjacent to large swamps, where these flies are hatched by millions, and cause much suffering among stock.—*D. C. M. Campbell, M. D., in Louisville Courier-Journal.*

Mad Dogs and Madstones.

"I have handled thousands of dogs and been bitten hundreds of times," said Wm. R. Bowers, Assistant Superintendent of the City Pound and Shelter, "and I have never seen but two animals that were afflicted with genuine hydrophobia. Dogs are subject to fits, and these are mistaken by the ignorant for rabies."

So far this season, despite the excessive heat, no mad dog cases have been reported by the police. Several dogs that had fits have been killed, but none of the slaughtered brutes had rabies.

"There is no cure for hydrophobia, either in dog or man," a leading physician, who has made hydrophobia an especial study, said yesterday. "The phenomena of rabies are peculiar and directly the opposite of the popular idea. A hydrophobic dog never froths at the mouth. The disease is a species of pneumonic insanity, and is caused by and too violent exercise. The dog loses his mind, and has an uncontrollable desire to run at full speed in circles. The glands of the throat become inflamed and swollen, so that deglutition is impossible. The animal is consumed with thirst, but his swollen throat makes it impossible for him to satisfy his cravings. As the disease progresses his eyes become glassy, his tongue distends and turns dark blue in color, his lips crack and he finally dies in violent convulsions. The so-called madstone cures that are so often reported are fallacious. There is no efficacy in stones of any sort when applied to the bite of a rabid dog."

Although 50,000 houseless and starving dogs are annually taken to the London Home for Lost Dogs, there has never been a genuine case of rabies there since its foundation, twelve years ago. In a pamphlet published by the managers of the home occurs the following paragraph:

"No one need fear a dog that barks savagely, bites at everything within his reach and froths at the mouth. He is not mad."

"There is a foolish superstition about the bite of a mad dog," said Mr. Bowers. "Persons who have been bitten by dogs that afterwards take fits or 'go mad' believe that the appearance of the disease in the animal means danger to them. We have dogs brought here every day to be killed that have bitten people and the invariable reason for wanting them put out of the way is that the person bitten may be rendered secure from hydrophobia. I have been bitten often by so-called mad dogs. If the wound is a slight one let nature take its course. If the bite is serious I cauterize the edges of the wound with caustic and I forget all about the matter as the wound begins to heal."—*Philadelphia Press.*

Household Economy.--Visiting.

To begin with, we lay it down as a principle, that visiting is natural, real, and a duty so intimately interwoven in the mental constitution that it cannot be ignored with impunity. Sociability, or visiting is only the occasion which draws mankind into families, societies and nations. It may be noticed that where the least sociability exists, the least friendship and good will prevails, and the lowest grades of barbarism is widely prevalent. This visiting for social enjoyment and natural improvement, is one of the grand features of the Grange, of incalculable value to the young, and the continued prosperity of our country. But what is a great curiosity, is that people congregated in cities are contiguous to one another and passing each other on the street almost daily, are the least acquainted; are indeed strangers to all intents and purposes, while in a sparsely settled country people know each other, and visit each other for miles around. True, the city produces different sets who sometimes meet together socially, but one set knows nothing and cares nothing for other sets. Each are intent upon their own business, and instead of making visits and enjoying social chats and considering the condition of the people all about them, they dress in the latest style from the Paris bulletins of fashion, and proceed to show themselves for five minutes to those of their set, expecting to be envied and looked up to as examples of the best specimens of the city. Visiting among the tad-poles of society in cities has dwindled to the cold and heartless formality of a five minutes call, and being loaded with the bill of envy, they let loose a talking tongue at every house to excite doubt and distrust, or attempt to make an open rupture between those who should be fast friends. Time is worse than wasted in this way—the seeds of evil are adroitly sown in rich soil, and a crop of sins are produced who he or she thinks satisfies the cravings of revenge.

This bad condition of society in cities is one of the prominent causes of many of the evils that flourish there, and we believe is the means of drawing thousands into evil practices, followed by lamentable results. Every large city is full of the needy poor who are absolutely driven to beg, or steal, or starve, and society is so constituted that their sufferings and temptations are scarcely noticed. This class must continue to increase; a nuisance which society takes very little pains to abate; but do so act as to increase the sad condition. Now, if the people of the city would condescend to know each other, and visit each other for purposes of self-improvement, and the serious consideration of what would best advance the interests of the poor, the suffering and the vile, much that now crushes and starves, drives into crimes, would be removed, and five hundred per cent added to the health, happiness and prosperity of those who are now neglected and spurned by the hell-begotten sentiment: "I am better than they." In the kind of visiting, or calling done in the city there is not the slightest degree of economy to be seen—it is time wholly wasted, and worse, for often the seeds of anger and strife are thickly sown and no good whatever is accomplished.

In the country, when we were young, and the practice is not yet abolished entirely, people went visiting because they really wanted to see their neighbors, and learn how they were getting along, and to consult with them mutually in regard to household or farm matters. And when the visit was made they did not go empty handed wearing black kid gloves in July; they took their sewing or knitting, and in the "long ago," if spinning was hurrying, then the little wheel went with them. The would work, and talk, and plan, relate experiences and gather items of interest which were stored up for future use. Some families in the country having high notions of where they belong in the long cortege marching down to death, put on airs, snub their neighbors' and their lily handed daughters are too good to associate with those red handed girls who stoop to milk, wash or iron. Aye, their girls are too delicate and blue-blooded to associate with young men who work on a farm. They fly high, soar aloft, and when they come down very likely in the lap of a city top, whose head was intended for brains, but contained only a nervous puzzle. Such people it is to be hoped are few, and we trust that the mothers of our country will have mercy enough on their daughters to teach them that labor was God-ordained and in perfect harmony with the physical system and the solid growth of the intellect. Idleness is everywhere the parent of vice, and probably this is one of the reasons why vice is more prevalent in the city than in the country. Industry saves from crime, promotes the growth of body, and consolidates the brain for the reception of strong mental food.

Social meetings of all kinds whether in families, or in the Grange hall; in the meeting-house or elsewhere, if conducted on humane principles are productive of good, and will help to lift the masses out of that idleness which is the father of unnumbered evils. There is then economy in visiting, not only in the matter of keeping one's hands busy, but in making the right use of intellect in furthering the happiness of our fellow beings.

We forgot to say that a very few ladies seem disposed to visit all the time and thereby neglect their business in the household. We don't recommend that kind of visiting, and such should be kindly labored with by their charitable sisters.—*R. H. Slosson, in Western Rural.*

The Young Folks.

Mother's Girl.

Sleeves to the dimpled elbow,
Fun in the sweet blue eyes,
To and fro upon errands,
The little maiden hies.

Now she is washing dishes,
Now she is feeding the chicks,
Now she is playing with pussy,
Or teaching Rover tricks.

Wrapped in a big white apron,
Pinned in a checkered shawl,
Hanging clothes in the garden,
Oh, were she only tall!

Hushing the fretful baby,
Coaxing his hair to curl,
Stepping around so briskly,
Because she is mother's girl.

Hunting for eggs in the haymow,
Petting old Brindle's calf,
Riding Don to the pasture,
With many a ringing laugh.

Coming whenever you call her,
Running wherever sent,
Mother's girl is a blessing,
And mother is well content.

Far from men's lairs, the woods and hills
Yield sweet delight, while murm'rous rills
With notes responsive to the trills
Of birds, hymn canticles.
Here men may breathe a purer air;
Here men a common worship share;
In scenes like this awaits Repose.
Life grants elate new life, and shows
No creed severe; no chastening rod;
A temple here to worship God!
—Ellis B. Usher.

Time glides with undiscovered haste;
The future but a length behind the past.
—Dryden.

All truth is precious, if not all divine,
And what dilates the powers must needs
refine.
—Couper.

The Strange Parasites Which Fatten on the Flanks of Man-Eaters.

One vicious, expressionless eye, says a writer in the *New York Post*, was cast slightly upward and as the shark moved slowly along his entire form was visible. At the head swam several of the famous pilot fishes (naucrates). They were continually darting at objects on the surface of the water, then running nimbly after their great friend, as if to tell the news, and taking up their position by the side of the gills.

The skipper had baited the hook with a twelve pound grouper, and making it fast to a piece of wood that would allow the bait to drop ten feet from the surface, tossed it over. The shark had disappeared, but in ten minutes he was seen swimming towards the smack again, and finally ran foul of the bait, and I distinctly saw him take it. There was no turning on the back; he seemed to sink below it, and took it without turning in the slightest, and moved off with the same measured swing.

The skipper slacked out the line gradually until about thirty feet had gone; then taking a brace against the rail, he allowed it to become taut, and jerked the hook into the thief. Luckily he dropped the line, as the jerk that came in response to his would have started an ox, and the line went hissing over the rails so fast that it could not be followed by the eye. "Let him have all he wants," said the skipper; "the more line, the quicker I'll down him."

Then ensued a struggle that would have made some of the hand-liners of the northern fishing banks open their eyes. When the line (or rope) had gone out nearly two-thirds of its length the fisherman skillfully caught it with a belaying pin, and so gradually reduced the speed of the fish. Finally, throwing off the pin, he seized the line in his hand and ran forward, then aft, taking in the slack so gained. Then the shark would go straight away, taking him to the rail, and the belaying pin would be adopted again as a soother. Four or five such rushes as this evidently had a very decided effect on the great fish.

The shark gave some terrific lunges as his head was hauled out of water, and at my request a block and tackle was rigged and he was hauled on deck and dispatched by a blow on the head. I watched particularly for the pilot fishes as he came up. The little striped creatures darted wildly about as if bewildered, and then disappeared beneath the bottom of the smack, evidently thinking they had found another companion. There were other attendants of the shark that did not desert it. I noticed them about in the water, long, black, snake-like creatures about a foot in length, and when the shark was hauled from its native element, they came with it, adhering to its sides and presenting a strange contrast. The fishes were remoras, the echeneis of the naturalist. They may be termed boarders to a certain extent, as they live about the body of a shark and I have seen them on a large porgy and also clinging to a turtle. They have upon the upper side of the head a remarkable sucker, composed of parallel plates, so that they can attach themselves at any time. So firm a hold did they take that it was with difficulty that I pulled them off, using considerable force,

A Tropical Tornado.

"The tornado of Monday last was a vivid illustration of what the wind can do when it gets a good ready on," said John B. Robinson, member of Assembly from Delaware county, and for eleven years an officer in the United States navy. "I was over yesterday to see the effects of the blow in Camden, and the destruction is similar to that caused by a hurricane in the tropics, or an East India typhoon. No one can ever believe the wind could exert such unearthly force until he has experienced it himself. I was in a typhoon once, on the 11th day of August, 1871, in the United States storeship Idaho, in Yokohama Harbor, Japan. I never want another such experience. We had had a long spell of intensely hot weather. The day before the typhoon part of the 10th British Regiment and Royal Marines, exchanged to go home, were transferred to a transport, and to avoid the heat moved in the early morning. Five of the men were sun-struck, when the sun was not three degrees high. We had about twenty hours' notice of the coming of the typhoon by the fall of the barometer, and the shifting of the wind and the increasing moisture of the atmosphere. A few hours before the center of the storm passed, the sky became filled with inky-black clouds, gyrating around in the most confused manner; the wind blew a steadily increasing gale, finally, as the storm center was on us, assuming hurricane violence.

"I was navigating officer, and part of my duty was to watch the barometer and symiesometer, which I marked every ten and five minutes. The mercury fell in regular jumps toward the last, as if the bottom was out of the tube, halting at 27.46. For the half hour preceding this situation was perfectly awful. We were at anchor in the harbor, the two best bowers down and veered to ninety fathoms of chain on each. The harbor was full of craft, large and small. Admiral Keppel's flag-ship, a Clyde-built steamer was on the side of us, the Pacific Mail steamer America, Captain Warsaw, on the other, and a Norwegian bark astern. The steamers kept full head of steam on and could ease up their cables. Our vessel and the other sailing had to trust to their cables.

"The danger of fouling was imminent. The bark drifted all around us, fortunately not striking. Had she done so both vessels would have been ground to pieces. The wind at its height was simply indescribable, the noise like that of 10,000 devils yelling in air. There was no sea on while the wind blew at its greatest velocity, as it cut the tops off the waves like a knife and the air was filled with a blinding salt mist. We could not show our heads above the rail. To look to windward or hold your head up against the wind was impossible. When the barometer ceased falling the wind fell, and a dead calm, awful in its stillness, succeeded for about fifteen minutes. We were then in the vortex of the storm, and, as we after calculated, four miles to the actual center. As the wind lulled the sea rose, and came piling in the harbor in tumultuous waves, running in all directions, toppling us over our decks and filling them with tons of water. Our hatches were battened down and everything was fast, of course, but our most serious danger was then, as we were loaded deep and rolled so that we actually thought at one time we'd turn clean over, but we came through it all right, though heavy shaken up.

"The wind came out from the opposite quarter, in a few minutes blew the sea down again and raged with demonic force and decreasing velocity for an hour or so, the barometer jumped up to near thirty inches again, the sky cleared, until there was not a cloud to be seen and the typhoon was past; but it left its work behind. Numbers of small craft and several large steamers were on the beach in pieces no bigger than a yardstick. The harbor was full of tea boxes for days from the wrecked vessels. Ashore the view was like in Camden yesterday, only the swath was far wider. I have been five times across the Atlantic, in some heavy wintery gales on that treacherous ocean, was in a cyclone off Hatteras in the frigate Macedonia, have scudded 2,000 miles before the 'brave westerly winds' on one parallel, off Cape of Good Hope when going out to India, but I have never seen the wind blow so hard as in that typhoon. Indeed, I never believed it could blow so and used to joke at the messtable with the executive officer, who had been in a typhoon prior to this one and would yarn about it. During the height of the typhoon he was standing alongside of me under the break of the poop. Capt. J. Crittenden Watson was in the cabin praying, he leaned down close to my ear and yelling with all his power, otherwise I could not have heard him for the shrieking of the wind, said: 'Now, d—n you, don't you believe it can blow?' My reply was an affirmative nod of the head, as I registered the next jump of the barometer. "Is there no way of escaping or mitigating the danger of these violent tornadoes?"

"None that science has yet discovered. Outside, with sea room, you can run out of them if you are warned soon enough, as the captain of the Twilight tried to do last Monday, but if caught in the track of one all you can do is to make everything snug about decks, batten down your hatches, bend your storm sails, furl your square sails and double lash them, run life-lines along the decks and put your trust in Providence."
—Philadelphia Times.

The English sparrow has a fresh indictment against him, that of wantonly nipping

off the blossoms from orange trees in Louisiana and Florida, where the growers are complaining that a short crop will result from this destruction.

How Screws are Manufactured.

The art of making screws is an art perfected by the genius of mechanical invention. The best screws are made of "charcoal-iron" wire. The wire goes first, in a coil, to the "headers." By the heading machine the wire is bitten off to the desired length at the rate of from one to two and one half per second, that is, of the length of a screw the size of which is to be made, and "upset" to the shape of the head. The machine known as the "header" is very solid. The wire fed into it is cut, or bitten, and simultaneously a head is "put on" it by a blow, which to speak humanly, must have been unexpected, inasmuch as it is secondary and sudden. Now the bit of wire comes out of the header in the length of the size of screw it is to be, and with the head on, but no thread. It goes next to the cylinder, where it is rattled in sawdust to brighten and clean it. After being cleaned the screw bits, as they still are, are placed in the store-room till wanted, when they are brought to the shaving machines, where the head is shaved and the slot cut. They are then washed in hot soda water to clean them and sent to the threading machine, where the thread is cut. "A duck drinking water" is what an enthusiastic gentleman likened the screw-threading machine to, and well he might, for anything more like nature in its operation it is impossible to find in the whole range of automatic machinery. The blank screws, as they left the header, were emptied into a pan supported by a revolving standard at the side of the threader. Over the pan dip two iron fingers, which scoop from the pan all they can hold of the blank screws. These fingers, when full, are automatically tipped backwards, feeding down the blanks to the body of the machine. Now, one by one, as they drop into place, two iron fingers pick them up and put them in position to be treated. In a moment it is done. To be exact, at the rate of twenty per minute the screws went through the "shaver," and at the rate of ten per minute the threader turns them out. Between each of the three steps of the process of manufacture—heading, shaving and threading—a careful assorting of them is done, and all imperfect ones rejected. Finally, in the packing-room, the last sorting is given, to make sure none but perfect ones are put up in boxes for the market. The screws are put into paper boxes holding each one gross, and these boxes are bundled into ten-gross packages, the largest size being put up in five-gross packages as well as in ten. The packer who wraps the boxes into the ten-gross bundles does it at the rate of three bundles in two minutes, and works as neatly and automatically as the machines in the mill.

The Dead Sea.

The Dead Sea is an old and decrepit salt lake in a very advanced stage of evaporation. It lies several feet below the level of the Mediterranean, just as the Caspian lies several feet below the level of the Black sea; and as in both cases the surface must once have been continuous, it is clear that either sheet must have dried up to a considerable extent. But, while the Caspian has shrunk only to eighty-five feet below the Black sea, the Dead sea has shrunk to the enormous depth of 1,292 feet below the Mediterranean. Every now and then, some enterprising DeLesseps or other proposes to dig a canal from the Mediterranean to the Dead sea, and so re-establish the old high level. The effect of this very revolutionary proceeding would be to flood the entire Jordan valley, connect the sea of Galilee with the Dead sea, and play the dickens generally with Scripture geography, to the infinite delight of Sunday school classes. Now, when the Dead sea first began its independent career as a separate sheet of water on its own account, it no doubt occupied the whole bed of this imaginary engineer's lake—spreading, if not from Dan to Beersheba, at any rate from Dan to Edom, or, in other words, along the whole Jordan valley, from the sea of Galilee, and even the waters of Merom to the southern desert. (I will not insult the reader's intelligence and orthodoxy by suggesting that perhaps he may not be precisely certain as to the exact position of the waters of Merom; but I will merely recommend him just to refresh his memory by turning to his atlas, as this is an opportunity which may not again occur.) The modern Dead sea is the last shrunken relic of such a considerable ancient lake. Its waters are now so very concentrated and so very nasty no fish or other self-respecting animal can consent to live in them, and so buoyant that a man cannot drown himself, even if he tries, because the sea is saturated with salt of various sorts until it becomes a kind of soup or porridge, in which a swimmer floats, will he, nil he. Persons in the neighborhood who wish to commit suicide are therefore obliged to go elsewhere; such as in Tasmania, the healthiest climate in the world, people who want to die are obliged to run across for a week to Sydney or Melbourne.—Cornhill Magazine.

Thither shall all the valiant youth resort,
And from his memory inflame their breasts
To matchless valor!
—Milton.

"Sunshine is said to be better than medicine." The man who got sunstruck the other day doesn't believe so.

Rats Warn Miners of Impending Danger.

Old miners have a great respect for the rats of the lower levels. They neither kill the rats nor suffer them to be killed by green hands. In the first place, were there no other reason, a dead rat left under ground would scent up a hole level, and, in the second place, the living rats devour any bones, scraps of meat, or fragments of other goods left in the mines, which would, by their decay, vitiate the air, generally hot at best. Rats also give a warning when a cave is about to occur. They feel the pressure of the settling ground, even before the cracking of the timber is heard, and come forth upon the floor and scamper uneasily about by scores. For these and other reasons the miners have a friendly feeling toward the rats, feeding and protecting them. In nearly every mine the men have one or more of the little animals as pets, and these are quite tame, coming out of their hole to be fed at lunch time.

When rats come into a new drift or crosscut it is considered a good sign—is thought to mean that the mine will strike ore. The other day when the men were at work on the face of a new crosscut on the 2,700 level of the Sierra Nevada mine a rat came into them, traveling along the line of the compressed air pipe. When the little rodent was seen some of the new hands wanted to kill it, but the old miners would not allow it to be hurt. They said it would bring luck to the crosscut. So they fixed up in the roof of the drift a box as a house for the rat, and placed food near at hand, in order that it might find its new quarters profitable as well as comfortable. There is much talk among the miners about the coming of the rat, and the men in the new crosscut are very proud of it and have high hopes on account of its presence. Woe unto the man who shall intentionally kill that Sierra Nevada rat.—Virginia City (Nev.) Enterprise.

How a St. Lawrence Muscalonge Was Caught by Two New Yorkers.

Ten gentlemen sat down yesterday to a dinner in a leading uptown hotel where the feature of the menu consisted of a muscalonge weighing twenty pounds, caught by Mr. Powell, a merchant of this city, and a companion on the St. Lawrence river, five miles from Brockville, Ont. The fish was caught by trolling. A strong line was used, and, after circling about for a short time, a huge fish leaped out of the water, and, diving down again, savagely grabbed the spoon. The hooks suspended from it took hold firmly in the lower jaw of the fish, and then began a struggle between the monster and his captors. The gamy fish went down the river like a race horse for a hundred yards or more, and then, describing a semi-circle, sped in the opposite direction. Plenty of line was given it for a short time, and then the fisherman began to haul in carefully until they got the fish near boat, but they found then that they could not land him without upsetting the craft.

Meantime a throng of picnickers on the islands had by had come to the shore, and were excitedly yelling to the sportmen to be cautious, and not attempt to drag the savage monster into the boat. A river steamer loaded with passengers came along and blew her whistle, while the people on board cheered lustily at the furious lashings of the fish. A little more line was given the big fish, and then, while one man held on to the prize the other pulled for dear life toward the American shore. The fish resented this by frequent plunges out of the water, but the strong hooks kept their hold, and his efforts only served to mingle his blood with the water which he lashed into foam.

The boat was at last run high up on to the shore, and at the same moment Mr. Powell, grasping the line firmly with both hands, drew the fish on land amid the cheers and yells of the picnickers and the people on the steamer. But the struggle was not yet ended. The fish floundered and flopped about with the line entangled about it, while its captors danced around and endeavored to get hold of it. Mr. Powell finally got in a blow on the head with the foot-rest of the boat, and the game fellow flopped once more, was struck again, and then lay still.

Both men were almost exhausted, having fought for their prize for an hour and a half. The fish was carefully packed in ice and shipped to this city. There was not a dish large enough at the hotel to hold the big fellow, and a clean board, covered with linen, was provided for it, and in that shape it was served and greatly relished by the dinner party.

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Cholera still continues in Spain, and it is reported in France, in Canada, and in Japan.

Only 25 Cents.

Send in 25 cents and take the KANSAS FARMER the rest of the year 1885.

A dozen or more new railway projects are under way in Kansas at this time. New banks and new railroads indicate a prosperous people.

Two new National banks were established in Kansas last week, one at Belleville, in Republic county, the other at Anthony, in Harper county.

We propose to make the "old reliable" KANSAS FARMER so valuable that no wide-awake farmer can afford to keep house without it. Try it the remainder of 1885.

Kansas City merchants have attacked the railroad companies doing business at that place, charging them with discriminating against them in the matter of freight rates.

Peace has finally been restored among the iron-workers in and about Pittsburg, and our information is that all the iron establishments in that region are now at work.

On the morning of the 27th inst. there was a heavy frost in the region of Staunton, Virginia. Garden stuff and late corn were badly damaged. Light frosts were reported the same day in various parts of Iowa. It will be a cold day in Kansas when we have frost on the 27th day of August.

Reports from the large cities are to the effect that trade is improving. Purchases for the fall trade are larger than they were last year, and the volume of business in general is larger than at the same time last year. Collections are made with little trouble, and people generally are feeling better as to business prospects.

The time has expired in which the cattlemen were to get out of the Cheyenne and Arapahoe reservations. Some of the cattle are now off and owners of the others are working as fast as they can. Troops are now stationed on the border to see that the President's order is obeyed, though it is not likely that they will interfere as long as there is evident intention to get out as fast as possible without loss or injury.

CHANGE OF MANAGEMENT.

Yesterday, the first day of September, A. D. 1885, Dr. R. R. Brown, who during the past three years was Business Manager and Treasurer of the KANSAS FARMER Company, disposed of his interest in the paper to his associates, and retired permanently. The Doctor's health has not been good, and the close confinement to the office which he found to be necessary was fast telling upon his physical energies, and he finally concluded that it would be better to make a change to the end that he may have a more active employment and enjoy more of the sunshine and open air.

There never was a more devoted man to his business than Dr. Brown, and in severing their business relations with him his associates wish to bear testimony to his sense of duty, his faithfulness and constant attention to duty. Their good wishes follow him wherever he may go and into whatever business he may engage. Should he ever conclude to change his residence, the new friends and acquaintances that he makes will find in him a useful citizen, and an honorable, clean member of society.

Mr. H. A. Heath, who has been Traveling and General Business representative of the FARMER, has assumed the general business management of the paper.

Adjustment of Labor Troubles.

The times are ripe for serious discussion of the best means for adjusting difficulties arising out of differences between laboring men and their employers. Labor strikes are becoming so common that it may be said in general terms there is at least one on hand all the time. The great strike among iron-workers in Pennsylvania and Ohio lasted nearly a year. Organizations among workingmen are common, and they are much more efficient than they were a few years ago. Their efficiency comes of the better and greater information of members as to their duties as citizens, and as to the propriety of operating within the law in all measures of redress. Progress in this direction has been marked, and it may be set down as a big credit mark to the laborer's account. So much has been learned within the last ten years that violence is specially prohibited by all labor organizations, and the more powerful and creditable ways of peaceful negotiations have been adopted. The strike at Pittsburg in 1877 amounted to a riot, and innocent people had to pay in money the actual damage done. The strike in Kansas in 1885 was quietly settled, in an orderly way, and quite successfully on the part of the workmen.

These facts show the progress made by workingmen in honorably maintaining or defending their side of issues presented, and they are much to the credit of the men whose hard muscles bear up under the greatest physical strain continually. But they do not solve the problem. They only prove that men who earn their daily bread by the labor of their hands have learned how to conduct a siege against what they deem to be injustice fortified by money. The great question is not that; it is much more comprehensive and involves the whole people in their organized form as State and Nation. There are two classes of employment in which men in large numbers are employed; one is purely private and affects the public only indirectly, such as manufacturing industries; the other is of a quasi public character in which the people at large are directly interested, as railroads, ferries, mills, etc. This distinction is to be kept in mind, because, unless it is, many persons would have difficulty in understanding how legislation is to help matters, or why legislatures have any

right or duty to interfere. In this article we will consider only that class of employment in which the public is directly interested—say railroads, for example.

Every man, woman and child in the country is directly interested in the prompt, efficient and safe management of railways. The farmer, for instance, ships his grain and stock away to distant markets, and in return he receives home supplies, as groceries and dry goods, hardware, lumber, etc. For the transportation of these commodities railroads have come to be absolutely necessary, and they are needed every day, not only in the dry season, or in the winter, or in the summer. They are necessary to carry about the ever-flowing volume of exchanging wares. Besides the carrying of trade articles, upwards of three million persons in this country alone travel every day from place to place on the railroads. Should the railways of the country stop running a single day, millions of dollars in property would be lost in consequence. There is no use, however, in contemplating any such catastrophe, for the subject cannot be entertained at all. The roads must be kept up, not for the benefit of stockholders and officers, but in the interest of the people generally. The public needs the railways, needs their services and that continually.

That point established, it is easy to see what an important part in the work is done by the hand-workers, the engineers, firemen, brakemen, sectionmen, yardmen, switchmen, trackmen, and all the vast army of a million and a half of workers that keep the great machine running. These men are as necessary to the transportation system of the country as are the ties, the rails, the bridges, the station-houses, the Presidents and Directors. They are all so many necessary parts of one vast system of necessary labor. The public can no more do without the help of these hard-working men than it can do without the roads themselves; and it would be as great a general calamity if these men should stop work as if the tracks were all torn up and the bridges and culverts washed away.

It is necessary, then, that this kind of employment should be continuous. Trains must run every day; railway men must be on duty every day; there must be no stop. It is the people that thus determine; they are the interested parties in the proportion of a thousand to one. Ten men may own a railway line and operate it, but ten million people are interested in keeping up the movement of trains of cars on that road. But when a dispute arises as to the treatment of the workingmen by their employers, the companies, if no agreement can be reached at once, (and it rarely happens that such a result takes place,) the men have but one remedy—to strike. If the strike affected the public only indifferently, as in the case of a strike in a cotton mill, people generally would not feel impelled by personal interest to interfere; but it is not that way. A strike on a railroad affects the people and their business directly; it goes right to their pockets, and they feel the injury in many ways. The great problem, then, is, what shall we do to adjust these labor difficulties satisfactorily so as to prevent railroad strikes and thus secure efficient service in transportation, and that prompt and continuous.

Railroad workmen are as important in the transportation system as soldiers and teamsters are in the army. Our laws are very stringent as to discipline among soldiers and marines. A deserter in time of war may be shot dead. Insubordination is treated summarily and harshly. That is all right; it is es-

sential to efficiency in the service. But it would not be right if the wages of the soldiers depended on the caprice of their officers. The service is rendered, not to the officers, but to the people; hence, the people see to it in their laws that every soldier and attache of the army and navy is made secure in a certain monthly salary, and to a pension for his family in case he dies on duty. We do not so treat railway employes, and right there lies the heart of the difficulty. Make the pay of the railroad laborer as certain as is that of the soldier, and there would be an end to railroad strikes.

The best way of effecting so desirable a result is one of very great interest and importance. The subject is too grave and involves too many and too sacred interests to be treated lightly or hurriedly. We shall not attempt to do so now, for this article is longer than it ought to be. But we feel deeply on the subject, and will refer to it again soon.

Experiments in Wheat Sowing.

Prof. W. C. Latta, of the Purdue University, LaFayette, Ind., recently published a statement of results of certain experiments in wheat seeding. In the fall of 1883, he sowed eight different lots of same size with the same kind of wheat seed (Fultz) and he sowed from one peck to eight pecks to the acre; that is, one peck on the first piece, two pecks on the second, three on the third, and so on up to eight pecks on the last piece. At the harvest of 1884 the yields of the 2d, 3d, 4th, 5th and 6th pieces respectively per acre was 24.9, 33.5, 35.5, 31.8, 34.8. No. 1, 7 and 8 are not reported because there was no record of the quantity of seed sown on those lots. In 1884 the experiment was repeated, and at the harvest of 1885 the yield was, beginning with No. 1, 7.7, 16.4, 25.3, 29.1, 32.1, 33.4, 32.1, 34.8.

In the fall of 1884, a test was made of broadcast and drill sowing. The intention was to get equal quantities of seed sown on the different lots, but the broadcast sower put on five pecks while the drill seeded four pecks per acre. One piece was sown broadcast, and two pieces of same size drilled. The yield at harvest was, broadcasted, 17 bushels to the acre; drilled, first piece, 17.3 bushels, second piece 20.9; average of the drilled seeding 18.95. The Professor says he thinks that if the same quantity of seed had been broadcasted that was drilled, the result would have been much more strongly in favor of the drill.

Another experiment discloses a singular fact. A small piece of ground was seeded last fall in drills two feet apart. One-half of the area was sown at the rate of one-half bushel to the acre, and the other half at two-thirds bushels per acre. During the growing season this year both plots were thoroughly harrowed three times, between the drill rows. The ground was rich and well prepared before sowing. The wheat made a strong growth in the fall and passed the winter and spring with very slight damage. There was, of course, a rank growth this season, which caused the wheat (Velvet Chaff) to lodge some before fully ripe. The grain was well filled, however, but the harvesting was rather difficult, and the wheat was not quite all gathered. The yields per acre were: Plat 1, sown one-half bushel per acre, 32.05 bushels; Plat 2, sown two-thirds bushel per acre, 32.18 bushels.

He draws no conclusion from this because of embarrassments mentioned. He proposes to repeat the experiment this fall with seed of a variety having stiffer straw.

Wanted.

Ten thousand new subscribers to try the KANSAS FARMER the balance of 1885 for 25 cents.

Last Sunday morning the daily papers contained two columns of telegraphic report of a prize fight at Cincinnati. The public taste must be badly vitiated when it wants to know all about the beastly performance of a couple of gamblers and drunkards that respectable people do not want about their houses. It is a sad commentary on public morals when a pair of roughs go to pounding each other in presence of thousands of people who look on and cheer the good licks. There is something graceful in bicycle riding, something pleasant and restful in billiards; but there is not a single redeeming feature in prize fighting. It is beastly and barbarous. It seems strange that any well-bred people should lend any sort of countenance to it. There is something manly in the art of self-defence; and men may reap benefit from good-natured sparring done in private and for healthful exercise; but there is nothing, absolutely nothing, commendable in prize fighting.

There is a very interesting pleasure resort in Georgia—Tullulah Falls, and the people in that State are justly very proud of it and take pleasure in advertising it. The latest is to the effect that Wm. Forman, of New Orleans, came here yesterday from Tullulah Falls for medical treatment. He tells a most wonderful story, all of which has been substantiated. While climbing up the rocks at the side of the falls, his foot slipped and he fell, rolling down an incline of 400 feet, and then fell over a precipice a distance of 376 feet. He fell into a soft marsh. For more than thirty hours he remained where he fell, unable to move, and almost too weak to call for assistance. At one time he saw the members of the rescuing party within thirty yards of him, but was unable to make himself heard. Fortunately he fell near a small stream and managed to get water by dipping his handkerchief into the water and sucking it. He also spread the handkerchief over his face to shut out the rays of the scorching sun. With his teeth he tore off pieces of the alpaca coat which he wore, and made a sort of pad for his head to rest upon. The distance he fell has been measured, and all his statements have been fully proved.

We are in receipt of a notice from Prof. C. V. Riley, Entomologist of the Department of Agriculture at Washington, to the effect that, in response to a Memorial presented to Congress by the American Ornithologists' Union, and through the efforts of others interested in the subject, a branch of Economic Ornithology has been established under the Division of Entomology of the Department of Agriculture; and Dr. C. Hart Merriam has been appointed as Ornithological Agent to take charge of this divisional work. The scope of the investigation will cover the entire field of the inter-relation of birds and agriculture, particularly from the entomological standpoint. The inquiry will relate primarily to the food habits of birds, but will include also the collection of data bearing on the migration and geographical distribution of North American species. In this last inquiry the Department hopes to have the co-operation of the American Ornithologists' Union, Dr. Merriam being chairman of the Committee on Migrations of said Union. The co-operation of farmers is solicited, and those having knowledge of food habits which are beneficial or detrimental to agricultural or horticultural interests are requested to communicate the same to Dr. Merriam. The assistance of persons willing to aid in the collection of birds' stomachs is particularly desired. Information is also wanted concerning the presence and habits of the so-called Eng-

lish sparrow (*Passer domesticus*) in the Southern States and in the region west of the Mississippi. Dr. Merriam will have his headquarters at Sing Sing, N. Y., until October 1, 1885, and after that date at the Department in Washington, and should be addressed accordingly.

Experimental Test Clubs.

The FARMER has often called attention to the importance of local organizations among farmers for purposes of mutual improvement. Such associations are educators of a high order. They can be made peculiarly serviceable because of the ease of handling them in the interest of particular localities. Farmers in a township may organize a club, a lyceum, a society, an alliance, no matter what the name adopted, that is specially adapted to the needs of the people of that particular township. It may be wholly unlike one in the township next adjoining and yet be just what is needed.

It is not our purpose in this place to go into the subject in detail; we merely wish to call attention to the Experimental and Test Club in Jefferson county, this State, which holds its meetings wherever it is most convenient, among the members. George Goddard is now President and S. Stiers, Secretary, both of whom may be addressed at Nortonville. On the back of a letter forwarded by the Secretary to this office we find printed the following sketch of the Club:

The Farmers' Experimental and Test Club is an association of farmers, organized 1878, for social and business purposes. The Club of farmers and their families meet at some one of the member's residence once a month, in a social way, where a programme of addresses, essays, select readings, debates, queries and business is executed, interspersed with music; and meets at the call of its President when any business is to be transacted that requires attention before the next regular gathering. The Club is alive to every move that falls in its sphere that promises a benefit to the club or community at large—is not narrow in its character, but, on the contrary institutes public occasions, such as an annual harvest home picnic, farmers' institutes and annual fair, which has been free admission to all. We are glad to meet the public on these occasions, and have them take part in all that is social and profitable. The benefits the club has derived as an organization and the undeveloped possibilities are numerous. Every member has been more or less benefited by the parliamentary practice the Club gives. Various experiments are made by the members on their farms, reported and discussed in the Club, and given to the public through the different agricultural papers. The best agricultural papers of the day are read by its members. The organization has been instrumental in developing a greater interest in improved stock, and its annual fair gives an opportunity to compare the different breeds of stock and field crops. We offer no premiums as a Club, but anyone wishing to encourage any special competition is privileged to offer a premium on that competition and make the conditions of the competition. Each member of the Club is regarded as honorable and upright in his dealings. If any highly meritorious stock, seed or implements are received from abroad by any of us, we are not backward in speaking well of the sender publicly, neither are we backward in notifying the public if any of us are swindled, and by whom. In short, we recognize that "in union there is strength," and endorse fair dealing among ourselves and others. Our motto: "Hew to the line, let the chips fall where they will." We solicit the acquaintance of similar institutions everywhere, that we may exchange communications.

Hiram Goodwin, near Kankakee, Ill., recently purchased cattle at Chicago, some 200 head. They were represented to him as Michigan cattle. At latest reports six of them had died and ten others were sick of Texas fever.

Tell your neighbors to try the KANSAS FARMER the balance of the year 1885 for 25 cents.

Injury to Hogs in Shipping.

Attention was called some weeks ago by Kansas City packers to the injury done to hogs shipped to the Kansas City market in the way of bruising the flesh on different parts of the body and particularly in hams. This is an important matter, for, as the packers say, they cannot afford to pay full price for hogs when part of the slaughtered carcass is afterwards condemned.

From the appearance of the hams after curing, these bruises are beyond question the result of kicking, prodding with sharp prods, blows with prod poles and heavy whips and overloading in the cars.

To a large extent, say the packers, we believe these abuses have been corrected by the Kansas City Stock Yards company while the hogs are in their possession, but we are satisfied that much of this damage occurs in the country and while in transit, and that it is in the power of the shippers from the country to correct this evil. It is hardly necessary to say that so long as a large percentage of the hams cured at our house are rejected by the inspectors as damaged, we cannot afford to pay the highest market prices, as an allowance for bruised hogs must be made in making our purchases.

Without raising the question of brutality, which in itself should be a sufficient reason for more considerate treatment of these animals while in transit to market, it certainly is a matter of interest to the shippers that every possible care should be taken of hogs from the time they leave the farm where they are fattened until they are received by the packers.

No prod poles, whips or sticks of any kind should be allowed in the hands of persons engaged to drive them, and the only implements of persuasion should be pieces of one-inch hose, or the tugs from a cast-off harness, cut two or three feet long.

Loading into the cars should not be effected by kicks and blows, but reasonable care and patience should be used.

It is also a very short-sighted economy to overload a car in order to save freight, as any saving so effected is more than lost by the greater bruising and other damage received by the hogs while in transit.

The Kansas City Fair.

The Kansas City Inter-State Fair for 1885 will be held on the Exposition grounds the 14th to the 19th days of the present month inclusive. The Kansas City Fairs are always worth attending, and this year great pains are taken to make it still more attractive. The magnificent ground in which the Exposition is held has been undergoing a year's improvement. Buildings, commodious and ornamental, have been made more beautiful than before, and nothing that art or money can do has been spared upon this lovely place.

The premiums this year surpass by thousands of dollars those of any previous one, especially in cattle, horses and mules.

The shows will be more select and will surpass in grandeur of display anything ever witnessed in the West.

The speed ring is an attraction that is sufficient of itself to guarantee the enjoyment of a hundred thousand people a day. Selections from the best horses known to the ring have been secured to contest for the stake and purses offered, whose exhibitions will be the most exciting ever seen upon the track of this Association. Nor are these races a special feature of interest on any particular day of the Fair. Every day from Monday to Saturday has an equal attraction and good displays of nerve. Speed and style will be the order of the Fair.

The editor of this paper acknowledges

receipt of a complimentary ticket and invitation to be present. For premium lists, speed programmes, or any other information, address Ed. H. Webster, Secretary, Kansas City, Mo.

THE MARKETS.

By Telegraph, August 31, 1885.

STOCK MARKETS.

New York.

BEEVES—Receipts 184 car loads for our market and 27 car loads for exportation. The feeling was a little better and the yards were cleared. Extremes, 4 50a 60 for native steers, 3 85a 40 for Texas do., 5 30a 50 for fair to good Colorado do. General sales of natives were at 5 25a 60, and of Texas at 3 85a 40.

SHEEP—Receipts 70 car loads. Dull, at 2 50a 1 50 for sheep, and 4 00a 60 for lambs; a car load of choice wethers taken for exportation at 4 37 1/2.

HOGS—Receipts 92 car loads. Dull and weak at 4 60a 5 10.

St. Louis.

CATTLE—Receipts 1,200, shipments 1,000. The bulk of supply is of poor grades which are not wanted, and transactions are slow. Natives and hippling steers 4 50a 5 50, native butchers' steers 3 00a 3 50, mixed lots of cows, heifers, bulks, etc., 5 50a 80, grass Texans 2 50a 3 60, Indian steers 2 75a 4 00.

HOGS—Receipts 2,500, shipments 1,100. Market steady and stronger. Packing 4 00a 4 45, Yorkers 4 10a 4 50, butchers 4 60a 80.

SHEEP—Receipts 2,500 shipments 1,100. Good grades steady and wanted, but poor stuff very dull. Good to choice muttons 2 75a 3 50, common to medium 2 00a 2 65, lambs 2 50a 4 00.

Chicago.

CATTLE—Receipts 8,500 shipments 2,100. Market stronger. Snipping steers 4 20a 4 40, stockers and feeders 2 75a 3 00; cows, bulks and mixed 1 60a 3 75; through Texas cattle steady at 2 50a 2 60, Western ranglers stronger, half breeds 3 60a 4 65, cows 2 50a 3 65.

HOGS—Receipts 21,000, shipments 6,000. Trade slow and 10a 15c lower. Rough and mixed 3 75a 4 05, packing and shipping 4 15a 4 20, light weights 4 15a 4 60.

SHEEP—Receipts 4,000, shipments 500. Market weak. Natives 2 00a 2 00, Westerns 2 00a 3 50, Texans 1 75a 3 00.

The Drovers' Journal special Liverpool cable quotes American cattle 1c per lb. higher than last week and 1 1/2c higher than two weeks ago. The supply is light. Best American cattle are selling at 14c per lb. dressed.

Kansas City.

CATTLE—Receipts since Saturday 632. The offerings to day were light and trading in consequence restricted. Sales ranged from 2 95 for Texas cows to 4 65 for shipping steers.

HOGS—Receipts since Saturday 4,432. The offerings to-day were moderate and the market weak in sympathy with Eastern advices, with values 5c lower. Extreme range of sales 4 00a 4 40, bulk at 4 20a 4 25.

SHEEP—Receipts since Saturday 149. Market quiet. Fair to good muttons 2 50a 3 00.

PRODUCE MARKETS.

New York.

WHEAT—Lower. No. 2 Chicago 86 1/2a 86 1/4, ungraded red 82a 82 1/2; No. 3 red 88c; No. 2 red 91a 91 1/2c; No. 2 September, 9 1/2a 91 1/2; October 93 1/2a 93 1/2.

CORN—Lower, closing steady. Ungraded, 51a 52 1/2; No. 2 51a 51 1/2c.

St. Louis.

WHEAT—Market very unsettled, and the bulk of trading consisted of changing from the near by to more deferred months. No. 2 red, cash 88 1/2a 90c; September, 88 1/2a 89 1/2c; October 91a 91 1/2c, November 93 1/2a 93 1/2c.

CORN—Very slow but not materially changed; No. 2 mixed, cash 40 1/2a 41 1/2c, September 38 1/2a 40c; year 85 1/2a 85 1/2c.

OATS—No. 2 mixed, cash 22 1/2a 23 1/2c.

RYE—Dull at 55a 55 1/2c bid.

Chicago.

WHEAT—The day on 'change was one of dullness, with prices ruling steady at the regular quotation. Opened easy. Sales ranged: August 79 1/2c, September 79 1/2a 80 1/2c; October 81 1/2a 82 1/2c; November 83 1/2a 84 1/2c; No. 3 spring 72c; No. 2 red 86 1/2c; No. 3 red 80c.

CORN—Ruled lower. Cash, 42 1/2; August 42 1/2a 43 1/2c.

OATS—Quiet and dull. Cash, 24 1/2.

RYE—Market steady. No. 2 at 56 1/2c.

Kansas City.

WHEAT—The market to day on 'change was weak with No. 2 red, cash and August nominal; September sold at 69c; October opened at 72 1/2a 72 1/2c; November was nominal and May sold at 86a 86 1/2c; No. 2 soft cash was nominal; August sold at 84a 84 1/2c; September sold at 83 1/2c, October sold at 86 1/2c; November sold at 89 1/2c.

CORN—No. 2, cash, 32 1/2c bid, no offerings; August, 32 1/2c bid, 33 asked; September, 5 cars 32 1/2c; 10 cars 32 1/2c.

OATS—No. 2 cash, 22c bid, no offerings.

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

BUTTER—Receipts are very fair and market rather quiet for all kinds.

We quote:

Creamery, fancy..... 20 a 17

Good..... 16 a 18

Fine dairy in single package lots..... 16 a 17

storepacked, in single package lots..... 6 a 8

Common..... 6 a 8

EGGS—Receipts large and market dull at 10 1/2c per doz. fresh re candled.

CHEESE—We quote: Full cream, 11c; part skim flats 8 1/2c; Young America 11c.

POTATOES—New Irish potatoes, home grown in car load lots 30c per bus. Sweet potatoes, home grown, 75c per bus. Onions, per bush., \$2.00. Cabbage, home grown, per doz, 40a 50.

BROOM CORN—We quote: Hurl 4a 5c, self working 3a 4c, common 1 1/2a 2c, crooked 3 1/2a 4c.

WOOL—Missouri unwashed, heavy fine, 15a 17; light fine, 19a 21c; medium, 19a 21c; medi m comb, 17a 19c; coarse combing, 17a 19c; low and carpet, 17a 15c; Kansas and Nebraska, heavy fine, 18a 15c; light fine, 16a 19c; medium, 18a 20c. Tub washed, choice, 28a 30c; medium, 26a 28c; dingy and low, 28a 26c.

Horticulture.

Blackberries--A Grower's Method.

At a late meeting of the Minnesota Horticultural Society, Mr. C. H. Hamilton, an intelligent small fruit grower of Fond du Lac county, Wisconsin, read a paper on small fruit culture, in which he spoke of blackberry cultivation as follows: "The Briton, or Ancient Briton, first imported from Wales, is the variety which is cultivated in Fond du Lac county, with unparalleled success. It is the king of blackberries, 4,000 or 5,000 quarts being the average per acre. It flourishes best in light, warm and well-drained soil, with fertilization equal to that given a cornfield, or for other crops. It needs more room than the raspberry, and should be planted in rows three feet apart, three or three and a half feet in the rows. Cultivate and hoe the plants the same as a piece of corn. In treatment, the thumb and finger can be more advantageously used than the pruning knife, and growth is stopped when the stock is two feet high. In protecting the plant two good men will lay down and cover 1,000 hills per day. Beginning at the end of the row, a small quantity of soil is dug away with a garden fork, and stepping to the opposite side of the bush, one foot is placed at the crown, close to the ground, the fork on the top of the bush; push slightly on the fork, and with the foot hard enough to bend the root, not the tops. The other man then throws on the soil, and in less time than it takes to describe the process, the bush is secured and ready for a long winter. In spring the crust can be opened with a three-tined fork, and the plant carefully raised, the soil being pressed back firmly at the root. After the row is all taken up, string the wires at once if possible, and the plants are effectually protected from the winds."

Mildew on Grapes.

Mildew is a popular name given to a delicate, cobweb-like coating found on various diseased or decaying substances. It is a minute parasite fungus. Like many other popular names of plants it is used to denote a number of different species, such as the corn mildew, hop mildew and vine mildew. The last named species is one which grows upon the leaves, young shoots and fruit of the vine. It is best known in its oidium stage when the minute interlacing filaments from which the fungi are developed make their appearance.

Soon after the flowering of the vine, this substance appears on the young leaves, from which the thin, white mycelium spreads rapidly to the older leaves and shoots, which it does not appear to affect injuriously. The chief damage is done to the grapes when they are in a very immature condition, that is, when they are about the size of small shot. The mycelium spreads, and about the end of June appears on the pedicels and on the young berries. I have never observed it on full-grown berries. The young berries attacked on their surface or on their pedicels, soon fall off. But the greatest damage results from the mildew infesting the leaves, whereupon the greater part of them turn yellowish-brown at the base, shrivel from that point, assume a club shape, and at last dry up entirely, usually remaining adherent to the withered branch. It is known that the nearer the grapes are to the coast, the greater damage from mildew, and this proves that parasitic fungi thrive best in the saline air. The only remedy known, and that is only a preventive if applied in time, is sulphur. The particles of sulphur, coming in contact with the spores of oidium destroy their vitality. As brimstone is also antagonistic to insect life, the application to prevent mildew is also a protective measure against the depredations of injurious insects.

To apply the sulphur successfully, the leaf buds should have a generous sprinkling about the time of frondescence, and when the blossoms on the racemes are fully developed, a second application should be made, and when the grapes are about the size of small peas another sprinkling is necessary. The proper time of day to apply the sulphur is between the hours of 4 and 9 in the morning, when the wind usually becomes so strong that it is impossible to continue. It is necessary to sulphur in the morning because the leaves are then wet with dew, and the powdered sulphur sticks to them and is thus more effective. If the vines are sulphured

when dry, the least movement of the vine by the wind will cause much of it to be lost.—*Farm, Field and Stockman.*

The Rose.

"I plant them all, my roses of Lorraine, The wild sweet briar, that blossomed in the lane, My Bengal beauties, moss-rose, pink, and white With all their glory."

So sings a Western poet, Mrs. Helen H. Rich. The words have a subtle charm and fascination such as this queen of the flowers possessed. The late H. B. Ellwanger wrote: "The price to be paid for beautiful roses is eternal vigilance inspired by reverent love." It is true that they sometimes profusely bloom in neglected gardens for a while, when the fibers have found their way into a rich soil, and the plants are protected by the very overgrowth of neglect. But they soon wither and die if left to themselves, for "he who would have beautiful roses in his garden must have them in his heart. He must love them well and always." There are two distinct classes of out-door roses, those that bloom only once in a season, called Summer roses, and the Hybrid Perpetual that give a continuous bloom all through the season, and a second crop in September. The soil cannot be too rich or the ground too well pulverized in which to plant roses, and in order to be vigorous the old wood must be annually pruned away and young shoots shortened or thinned according to their strength. After summer-blooming of hybrid perpetuals they need to be carefully pruned to promote the growth of young wood for the next crop of flowers. There is no need to describe varieties, for the catalogues are full of such, and difference of climate makes a difference of certain sorts. But La France is very sweet, and the new Baroness Rothschild certainly is the most beautiful of roses that ever wore a satin dress. The new rose, "Sunset," of which I had two plants last season, did not fulfil my expectations and was mistaken by the uninitiated for "Safrano." Countess of Oxford was very fine and so was the Duke of Edinburgh. Among one hundred varieties grown in my garden, I find many that are tender, and invariably notice the pale roses as the most delicate in growth, with the notable exception of Madame Plantier. "How do you keep off insects?" many people inquire. I can only say that the bushes are treated in autumn to wood ashes, lightly dug in, and in the growing season all the soapuds from the washing and sundry decoctions of whale oil soap with a trifle of kerosene that has been mixed with milk, if applied once a week will keep them clear of vermin. In the blooming season one does not like to put it on, but it need not be put upon the flowers, for if the lower stems are clean the buds will easily be rid of the enemy. Encourage birds, for the little yellow bird destroys quantities of aphids, and is a real benefactor. It is wonderful what a pleasure can be derived from the rose. A garden without it is like the play of Hamlet with Hamlet left out.—*Annie L. Jack, in Our Country Home.*

If the Bostons can't play base ball, they can afford some enjoyment in hiring a brass band to parade.

The highest velocity imparted to a cannon ball is 1,626 feet per second, equal to a mile in 3.2 seconds; and the velocity of the earth is 1000 miles per hour, or a mile in 3.6 seconds.

The Queen of England has 315,000,000 subjects, of whom 45,000,000 are Christians, 60,000,000 are Mohammedans, 183,000,000 Hindus, 7,000,000 Buddhists, and about 7,000,000 pagans.

A Bridgeport man had a "revelation" that the Lord wanted him to work for fifty cents a day less than he was receiving. His employer being a native of Connecticut generously granted his request.

It appears that climate is regarded as having so much effect upon hearing that English physicians sometimes seek to lessen the deafness of patients by sending them to the dry parts of New Zealand.

The Philadelphia Times has been taking a census of the religious opinions of the lawyers of that city, and finds that of the 1,500 members of the bar there, nine-tenths are either church members or have well-defined church affiliations.

France has voted an appropriation of \$800,000, to be expended by the State in maintaining and educating every seventh child born in French families. The enactment applies to either sex, but is confined to the children of parents in needy circumstances.

In the Dairy.

Butter Making.

"A lady of Georgia, famous for her admirable housekeeping, bids us write no more on the subject of dairy farming, as she sent first-class butter to Augusta and could get but twenty cents a pound for it."

We find the above paragraph in the Augusta (Ga.) Chronicle. Lest it may discourage the business of butter-making in this State, we will make some general suggestions that we hope will aid our readers in this important industry. We apprehend that the low price of products is not to be attributed to want of care, but to the absence of information as to the best methods of butter-making, and what is really first-class butter.

Some years since we looked into the dairy of an industrious good woman, and found the lady standing over a Davis swing churn, the very embodiment of disappointment and distress, as she realized the failure of her efforts and the very poor quality of the large lot of butter just gathered in her churn. Her dairy had been expensive in construction; her cows had cost her much money; her interests had been largely absorbed by the business, and the whole thing was a failure, as she felt. All this because she had not learned that butter-making is a science, and needed to be studied as such. We made some suggestions, and the butter from this dairy is now selling in this market for forty-five cents per pound, and the good woman is happy.

We cannot, of course, give a treatise on butter-making in one article, but only a few helps that may be of service. The prime necessity is the proper care of the cream. Milk will readily absorb bad odors; these must be removed from possible contact. It is highly important to churn the cream before it becomes too acid; otherwise, the butter will have small white specks through it and be much damaged in sale. Acidity in milk is incipient decomposition, and the flavor of the butter is the first element destroyed in this way.

The quality of the butter is much affected by the food. Cows fed on cotton seed will not make good butter. Bran, meal, ground oats, peas, sound hay, cornfodder and sorghum will make good rations.

The cream should not be allowed to reach a temperature higher than that at which it will be churned. It should not be churned until it is ripe, or "turned," as we sometimes say. If cream taken from separate milkings is to be churned at the same time it should be well stirred, so that the mass may ripen uniformly. It is not necessary to churn the milk. If all cream is put into the churn you will get all the butter, as none will be left in the milk. The skimmed milk can be fed to the calves.

By all means have an improved churn. If good butter is made in the old-style dash churn, it is an accident and cannot be certainly and uniformly repeated. The churn should have no obstruction on the inside, so as to prevent breaking the granules. Standard butter always "comes" granulated.

Before putting into the churn it should be determined that the cream is at the proper temperature. In this climate we have found 62 deg. in summer and 64 deg. in winter to be about right. The churn itself should be brought to a corresponding temperature, otherwise it will change the temperature of the cream after receiving it. It will now be understood that a thermometer is as essential to good butter-making as a churn itself. We guess at a great many things that ought to be definitely determined.

Butter is much damaged by being churned too warm, too rapidly or too long after it has gathered, or "come." These suggestions must be very carefully guarded.

After drawing the milk from the churn the butter may be washed through a brine, made by putting about a handful of salt in a gallon of water. The brine should be poured upon the butter and allowed to stand for a little time, and then agitated sufficiently to wash out the water. The butter is then ready to be taken from the churn with a perforated skimmer and placed upon the worker. The worker, or paddle, should not be allowed to slip on the butter, as it breaks the granules that stand out, the size of small shot, if the butter has been properly churned. Butter managed in this way will need but little working. A great deal of the butter

put upon the market is worked too much. As it is worked, the butter should be salted, putting into it one ounce of salt to every pound of butter. All these conditions may be carefully observed and the butter fail to command a good price because of its unseemly appearance in market. With pound molds it can be readily put into pound cakes and nicely printed, so that each roll can be separately wrapped in waxed paper, to be, finally, put into a nice shipping can, made for the purpose. A little care and neatness will pay a good per cent. in the dairy.

It is, of course, understood that perfect cleanliness shall be observed during the whole process. All vessels should be thoroughly cleaned with boiling water and soap, and kept much in the sun. If all the details of the dairy are intelligently observed by a careful dairy-woman, money can be realized from a very pleasant business.—*Southern Cultivator.*

Dairy Notes.

The cows should have salt quite frequently while on green feed.

Colorado has fourteen creameries in operation, and the State is assuming some proportions in the manufacture of butter and cheese.

Every dairyman should be prepared to feed green grass or green cornfodder in the stable night and morning, as soon as the pasture begins to fall.

Cows inherit the propensity to give large or small quantities of milk, but still the quantity will be varied greatly by the treatment to which they are subjected.

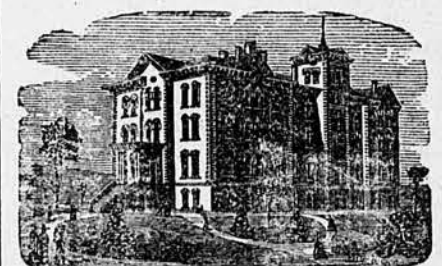
All things considered, the largest flow of milk is the most profitable, unless it is secured at too great expense; and reason must be used here as in all other things.

There are 2,400 stables of cows in New York, the milk of which is sold in the city, and these cows, from the time they enter the stables until no longer able to give milk, never see grass.

A writer in an exchange says: I differ very much from some in regard to ensilage injuring milk. In fact I was one of the first to make complaint that milk made from silo food was injurious and unfit for use. In fact, I took a quart of the milk and carried it home to my house, and it was very easy for my family to discover that the milk was unfit for use, both by smell and by taste. Well, now the only remedy that is necessary to be used is simply this: To have a ventilator on the top of your silo, and that is the end of it. The reason why the milk was spoiled by using ensilage was the fact that the barn itself was scented through and through, and the scent that came from that silo penetrated into the milk just as it did everything in the barn. After the ventilator had been put in the trouble was remedied. When the milk has stood near ensilage for perhaps an hour or two, it has become completely saturated with the odor and unfit for use. This is what I have said here previously and I presume it is not out of character to speak of ensilage. The overseers of the poor built a silo and the question was raised whether the milkman would take our milk. But he has taken it and never in a single instance has any fault been found. It is beautiful milk and he is very particular. He sells pure milk and insists that it shall be pure. If you will ventilate your silos you will have no complaint. We have no complaint now. It can all be easily obviated.

WASHBURN COLLEGE

TOPEKA, : : : KANSAS.



FALL TERM BEGINS SEPTEMBER 16, 1885.

OPEN TO BOTH SEXES.

Four Courses of Study—Classical, Scientific, Academic Business. Personal supervision exercised. Separate Christian Homes provided for young women. Ten Instructors employed. Excellent appliances of Library, Apparatus and Cabinet. Expenses reasonable. PETER MOVICAR, President.

The Poultry Yard.

Poultry Manure.

The *American Poultry Yard* has a good article on this subject. It says analysis has demonstrated that poultry manure contains many of the elements which render the best guano valuable as a fertilizer. It can be guaranteed perfectly pure, which is frequently not the case with commercial fertilizers. In a fresh state it contains quite a percentage of water, but when a due allowance has been made for this, it is well worth from one-half to two-thirds the price of guano. Yet those who have it for sale oftentimes find much difficulty in disposing of it at fair prices. Many farmers, who will readily incur a large bill for artificial fertilizers, seem unwilling to purchase poultry manure at any price. Why this prejudice against so valuable a fertilizer should exist has puzzled many poultry-keepers. It is probably due to two causes.

1st. Many men are ignorant of the proper use of poultry manure. Like any highly concentrated fertilizer, it needs to be used with care. There is a right way and a wrong way of using it, and if the wrong way is adopted the expected benefit is not obtained and the fertilizer is condemned as worthless. There are some men who cannot see any benefit from the use of guano. They have tried it in a wrong way, and they jump at the conclusion that it has no value because they didn't receive any. Their conclusion is about as wise as that of a backwoodsman who declares there can be no music in a piano because he cannot get it out. But if he were a Liszt or a Reubenstein he would come to a very different conclusion. Men, who have carefully tested poultry manure in the right way, give it their emphatic approval.

2d. Poultry manure is frequently not properly saved. Wood ashes and quick lime are used under the roosts to keep the air pure, but though this may be a wise sanitary precaution it is very poor husbandry. Ammonia, one of the most valuable of the fertilizing components of the poultry manure, is set free by the action of the lime and the ashes, and its value as a fertilizer is thereby much impaired. Dry earth will answer very well for this purpose, but better still is common land plaster. These agents, and particularly the latter, fix the ammonia and other volatile fertilizing elements, and so render the manure of much greater value, while they are for sanitary purposes more effective than the lime and ashes. If the droppings are carefully saved and housed and treated to a sprinkling of plaster they will be found to be an excellent and powerful manure.

If proper care is taken in the preservation of poultry manure so as to save all its valuable elements, and a proper use is made of it as a fertilizing agent, the foolish prejudice against it will disappear, and what now in many places is a drug in the market will be eagerly sought after by intelligent farmers and gardeners.

The Black Spanish Fowls.

Many persons keep fowls almost entirely for the profit to be obtained from the sale of their eggs. In many respects poultry pays better than any other stock on the farm, as they obtain quite a large proportion of their food by their own exertions, and as a part of their food consists of insects they become in that respect beneficial to the farmer, besides the profit obtained from their eggs and flesh. The definite cash returns are measured, however, by the number of eggs laid and chickens marketed. For this reason the non-sitters as they are called, are preferred by many, as their production of eggs is more or less con-

tinuous, and can in a measure be calculated beforehand by any judicious and skillful poulterer. Singularly enough, all, or nearly all, the non-sitting breeds of poultry originated in the south of Europe or on the shores of the Mediterranean.

The most highly-bred variety of this fowl is called the Black Spanish, which was brought to its present perfection by Holland poulterers. There are two varieties of the Black Spanish noticed in the poultry books—the White-Faced and the Red-Faced, or Minorcas. The latter is the heavier fowl, and in some cases appears to be hardier; but the White-Face lays as large and as many eggs, and having been the result of great skill and care in breeding, is the more beautiful variety of the two. As now bred, the White-Faced Black Spanish is a very beautiful bird, the lustrous black color of the plumage contrasting vividly with the scarlet of the very large comb and wattles, and the peculiarly shining white of the ear lobes and face.

The principal value of the breed is its laying propensity. The eggs are pure white in color and very large. There is no breed of fowls, probably, that will lay more pounds of eggs in a year. With the exception of the moulting season and an occasional cold snap, Black Spanish hens will lay every week during the year. Of course, if eggs are expected in the winter, warm, comfortable quarters, warm drink, and suitable food must be provided, and if this is done very few weeks will pass without more or less eggs from a flock of these fowls.

If intended for exhibition, as well as for the production of eggs, warmth in winter is imperative, as the least frosting of the comb would disqualify the bird. The standard by which poultry is usually judged is very particular on this point and by that standard the head, comb, wattles and face cover nearly half the 100 points necessary to perfection. The comb must be absolutely upright in the cock, and must not fall over to one side in the hen. If any of the "teeth" or serrations of the comb are frozen off the bird is disqualified. The white of the ear-lobes extends entirely around the eyes in Black Spanish. When Spanish fowls are kept for their eggs the combs should be "dubbed," as are those of Game fowls. This should be done on the score of humanity, as the fowls would not suffer from frosting, as they are almost sure to do eventually if the combs are not cut.

Owing to the very high breeding of this variety of fowls great care must be exercised in introducing new blood, which often becomes necessary to prevent loss from in-breeding too closely. When carefully bred, so that the combs, faces, color and carriage are kept up to the present high standard, there is no fowl that presents a finer appearance on the lawn, or which is more profitable in the way of egg production. It is also a fine table fowl, resembling in this respect the French breeds. The only drawback to keeping Spanish fowls is the fact that a few Dominique hens must be kept to hatch and raise the chickens, as a Spanish hen seldom offers to sit.—N., in *Country Gentleman*.

The Busy Bee.

Hiving Swarms Where Two Come Out Together.

The Canadian *Bee Journal* gives its readers the benefit of some experience in hiving bees when two swarms come out together. "As we walked into one of our bee yards the other day a swarm was hanging on a tree several rods from the apiary. This swarm had issued very early in the morning, probably because the weather of the two previous days had been unfavorable for swarming. As we neared the center of the yard, which contained about two hundred colonies, we saw the foreman run and pick up a wire tent hurriedly and set it over a hive, about which he noticed indications of swarming. The tent was scarcely over the hive before the swarm commenced to issue. After the swarm had about half issued, and the entire wire tent, which is about three feet wide, five feet long and five feet high, was covered with bees, the queen came forth from the hive, alighted on the front of the wire cloth and crawled up. Soon they all clustered on

the top of the wire. Then, in a minute more he raised the tent, lifted out the parent colony, and set another hive with combs in its place for the new swarm to occupy. Then by tapping the wire a little with the fingers on the outside, the bees came down and commenced to run into the hive. In a very few minutes they were all in the hive with their queen. The wire tent was tipped back, the hive carried to its permanent stand, and the parent colony set back on the old stand again. By this means he hived the new swarm on the old stand by merely setting the parent colony outside the tent to catch any stray bees that might return from the fields, and prevent the swarms from uniting with the one hanging on the tree. A tent like this in a yard where there are a good many strong colonies, seems now to be indispensable; for if two swarms issue at the same time, one may be caged by the wire tent and hived on its own stand, before the other has time to cluster on a tree.

"On the morning of the 17th, as the foreman went into our home yard with some of the students, he found a swarm issuing. He immediately caught the queen and hived them. The work was scarcely over when two more commenced to issue. While getting the wire tent to place over this one, two more rushed forth, and it was evident that they all intended to alight in one cluster. Before he got the tent over one, another started to issue. This one (the sixth) he secured from going in with the others. He might have got the tent over one of the other hives, but as they started to issue he rushed from one entrance to another, catching the queens. He succeeded in capturing three, slipping them into cages and dropping the cages into his pocket. Soon the four swarms clustered together on a tree; then he took a step-ladder, a dipper, and a light box with wooden sides and wire bottom, about 16 by 20 inches. Before going up the ladder, he placed hives at intervals in front of the tree; the queens he placed, one at the entrance of each hive. He then commenced dipping off the bees, holding the screen under to catch any that might chance to fall, handing each dipperful down to the students, who poured them in front of the hives, dividing them as equally as possible. In a few minutes they were all separated and running into their hives. While they were passing in the queens were liberated and allowed to pass in with the bees. Soon all the swarms were hived separately and set on their new stands, as well as if they had alighted in different clusters and been hived the same as single swarms. It seems to please the students to get instances like these for practice."



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A PLEA FOR GROVES.

If every prairie farm of one hundred and sixty acres had a ten acre grove of valuable trees on it, that grove would add 100 per cent. to the value of the farm. Let every one that reads this article, if he owns a farm without timber, ask himself how much he would value such a grove as we are speaking about. It would afford a permanent supply of timber for the farm. Fencing and fuel would be always at hand instead of ten to fifteen miles away as is often the case, and that would be worth a great deal. But aside from the fencing and fuel, it would often furnish ready money in the way of fencing posts or railroad ties or lumber for other people. It may be that other substances will be used in time to come in place of wood for a great many purposes; indeed, that is the case now; but it is not because wood is not needed, it is because suitable wood is scarce. Iron is now used for many things that were made formerly wholly of wood. Paper, also, is so used, and even straw. But not in the life time of people now living will good timber be superseded wholly by anything. Nor, during the same time will timber be worth less than it is now for any of its most useful purposes.

But aside from all considerations of commercial value, a grove of good timber trees has a farm value that can not be estimated in dollars and cents. How gladly would every purchaser of a prairie farm buy with it a piece of good timber land if he could get it. There are a thousand and one ways of using the supplies furnished by a grove. Besides fuel and fencing, it supplies materials for the making and repairing of farm implements, and repairs about the farm buildings. In moving pens and small stables, and in moving portable fences, the grove would be handy.

And then, for purposes of shade in the summer and shelter in the winter, a grove is invaluable. Stock of all kinds do better when they have the benefits of a grove both winter and summer.

And still another advantage of a grove is its action on the atmosphere, and its influence in aiding the regulation and deposit of moisture. And as a wind-break it is incomparable.

The object of this article is to excite an interest among our readers in the subject. It is not nearly as much trouble as some people think it is to raise trees and a great many of them in a short time. The writer of this set out some little trees fourteen years ago last spring that are now visible miles away. They are large. He has grown walnut trees eight feet high from the seed in three years, and he now has catalpa and Russian mulberry trees four to five inches in diameter, transplanted only two years ago last spring. Their tops are ten feet across.

If a man will only make up his mind that he must have a grove, a large part of the work is done the instant that resolution is formed if the individual is one that means business when he passes a resolution. When his mind is so made up, then he begins to study the subject and collect information. He talks to his neighbors, he asks questions of the editor of his farm paper, he consults reports of horticultural societies, and he gets onto a book occasionally that treats of trees and their propagation. And while he is doing these things he is getting his ground ready. He has selected a place after due deliberation, considering all the circumstances and surroundings, as to soil, lay of the land, relative position as to other parts of the farm and particularly as to the dwellinghouse grounds. He tests the soil, and is very careful about drainage. He becomes enthusiastic and lays in a good supply

of seeds of catalpa, walnut, mulberry and any other variety that he may like and wish to raise. He prepares a bit of ground for the reception of this seed, and he does it with as much care as if he were going to raise celery or some other choice vegetable to surprise his wife with. He sows the seed and cultivates the young plants in rows with great care. He keeps the ground soft, mellow and clean, and is proud in the fall of his trees that have grown from one to six feet high. The next spring his grove ground is in the best possible condition, and he takes a favorable time to make furrows and set out his young trees. If he is as wise as he will be two years later, he will plant his walnutseed in the first instance just where he wants the trees to grow, because walnut trees have long tap roots, and they are not easily transplanted so as to make a success of it. He will set the trees in check rows four feet apart, and he will cultivate the ground as well as he would an onion patch in the garden. Ninety-five per cent. of the trees will grow. By careful cultivation and pruning, at the end of five years, if he has ten acres in a grove, he has doubled the value of the farm independently of all other causes of increase in value.

As to labor, the first year more is required in the planting than is required to plant an equal area in corn, but after that the labor is less, because there is only one planting to be done, and that is the first year. After the first year two weeks work all told for one man and team is all that will be needed. That will allow four good workings in one season. After the fourth or fifth year there will be little or no work required except to thin the trees, and that will well pay for the labor in fuel and

Let us figure a little. In one acre of ground there are 3,500 square feet, and if these are set four feet apart in check rows an acre will contain 2,722 trees—say 2,700. Ten acres, then, would contain 27,000. One-half of them, or 13,500, would be removed the fourth or fifth year. Say they are worth 10 cents apiece, that would amount to \$1,350. The removal would not cost anything if the farmer does the work in winter himself. But suppose it cost \$150; there is still \$1,200 left, and it did not cost one-half of that amount to buy the seed and do all the work that was done on the ground during all of the four or five years that the work was going on. At 5 cents a tree, and counting out all the deficient and worthless ones would pay for all the work done. And then there are 13,500 good, vigorous trees still standing, and they are ten to twenty feet high.

When another four years pass, another thinning will be needed, when one-half of the remainder must be removed for the benefit of what are left. They are then worth at least 50 cents apiece. That is a very low estimate. One-half of 13,500 is 6,750, and that at 50 cents apiece, gives \$3,375, and leaves 6,750 good trees that will be worth \$1 apiece at the end of another four years, or \$6,750, and the grove is only twelve years old. Put those three numbers together—\$6,750, \$3,375, and \$1,350, and the sum is \$11,475 on ten acres of ground in ten years.

But that is not near all. When the trees are set they are four feet apart. The first thinning leaves them four feet one way and eight the other. The second thinning leaves them eight feet apart both ways. They must be thinned at least twice more and then they will be only sixteen feet apart, when there would be 1,682 trees left, worth \$5 apiece, or \$8,400 as a permanent investment.

To recapitulate: The first thinning

gives us \$1,350; the second thinning gives us \$3,375; the third thinning, counting one-half the trees at \$1 apiece, \$3,375; the fourth thinning, counting the trees at \$2 apiece, gives \$3,364, and there are 1,682 trees worth \$5 apiece left.

These figures are very low for either catalpa or black walnut. They are low enough to supply the amounts we have named and leave an abundance of firewood for the farm besides.

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Kansas Fairs.

The following counties have reported dates for holding their annual fairs, giving name of Secretary and the place of holding the fair:

- The Western National Fair (Bismarck), Lawrence Sept- mbe 7-12; Secretary, R. W. Cunningham. Anderson County Fair Association, Garnett, August 25-29; Secretary, M. L. White. Bourbon County Fair Association, Fort Scott, October 6-9; Secretary, E. W. Hulbert. Brown County Exposition Association, Hiawatha, September 8-11; Secretary, C. H. Lawrence. Butler County Exposition Association, El Dorado, September 29 to October 2; Secretary, H. W. Beck. Chase County Agricultural Society Cottonwood Falls, September 22-25; Secretary, E. A. Klune. Cherokee County Agricultural and Stock Association, Columbus, September 8-11; Secretary, S. O. McDowell. Clay County Agricultural Society, Clay Center, September 15-18; Secretary, Wirt W. Walton. Coffey County Fair Association Burlington, September 15-18; Secretary, J. E. Woodford. Cowley County Fair and Driving Park Association, Winfield, September 21-25; Secretary, D. L. Kretzing. Dickinson County Agricultural and Industrial Association, Abilene, September 23-26; Secretary, H. H. Floyd. Doniphan County Agricultural, Horticultural and Mechanical Association, Troy, September 15-18; Secretary, Thos. Heushall. Elk County Agricultural Society, Howard, September 15-18; Secretary, J. V. Bear. Western Kansas Agricultural Fair Association, Hays City, September 22-25; Secretary, P. W. Smith. Franklin County Agricultural Society, Ottawa, September 28 to October 2; Secretary, John B. Shaffer. Harper County Agricultural and Mechanical Association, Anthony, September 1-5; Secretary, J. W. Clendenen. Harvey County Agricultural Society, Newton, September 22-25; Secretary, A. B. Lemon. Jefferson County Agricultural and Mechanical Association, Oskaloosa, September 23, 24 and 25; Secretary, A. J. Buck. Valley Falls District Fair Association, Valley Falls, September 1-4; Secretary, M. M. Maxwell. Jewell County Agricultural and Industrial Association, Mankato, September 29 to October 2; Secretary, Geo. A. Bishop. Johnson County Co-operative Fair Association, September 22-25; Secretary, C. M. T. Hulet. LaCygne District Fair Association, LaCygne, September 29 to October 2; Secretary, O. D. Harmon. Marion County Agricultural Society, Peabody September 1-4; Secretary, L. A. Buck. Marshall County Fair Association, Marysville, September 22-25; Secretary, C. B. Wilson. McPherson County Fair Association, McPherson, September 19 to October 2; Secretary, J. B. Darrah. Miami County Agricultural and Mechanical Association, Paola, October 7-10; Secretary, H. M. McLachlin. Montgomery County Agricultural Society, Independence, September 16-19; Secretary, B. F. Devore. Morris County Exposition Company, Council Grove, September 29 to October 2; Secretary, F. A. Moriarty. Nemaha Fair Association, Seneca, September 15-18; Secretary, W. E. Wilkinson. Phillips County Agricultural and Mechanical Association, Phillipsburg, September 16-18; Secretary, J. W. Lowe. Rice County Agricultural Society, Lyons, October 13-16; Secretary, C. W. Rawlins. The Blue and Kansas Valley Agricultural Society, Manhattan, August 25-28; Secretary, S. H. Sawyer. Saline County Agricultural, Horticultural and Mechanical Association, September 29 to October 2; Secretary, C. S. Martin. Arkansas Valley Agricultural Society, Wichita, October 5-9; Secretary, D. A. Mitchell. Sumner County Agricultural and Mechanical Association, Wellington, September 8-11; Secretary, D. A. Espy. Neosho Valley District Fair Association, Neosho Falls, September 21-25; Secretary, O. S. Woodward. Decatur County Exposition Society, Oberlin, September 23-25; Secretary, T. D. Bebb, Vallonia. Smith County Agricultural Society, Smith Center, September 23-25; Secretary, F. J. Pates. Kaw Valley Fair Association, St. Marys, September 22-25; Secretary, A. J. Beak. Osage County Fair Association, Burlingame, September 15-18; Secretary, A. M. Miner. The Kansas Central Agricultural Society, Junction City, September 30 to October 2; Secretary, Chas. S. Davis. Rice County Fair, Lyons, October 6-9; Secretary, C. M. Rawlins. Washington County Fair, Washington, September 29 to October 2; Secretary, C. W. Aldrich. Kansas Association of Trotting Horse Breeders Topeka, September 22-25; Secretary, Rufus Bean. Parsons Fair and Driving Park Association, Parsons, September 15-17. Caldwell Driving Park and Agricultural Association, Caldwell, August 27-29; Secretary, John W. Niles. Pawnee County Fair and Stock Association, Larned, September 23-26; Secretary, Geo. A. Sells. Reno County Fair Hutchinson, October 13-16. Ottawa County Fair, Minneapolis, September 8-11; Secretary, W. H. Chappel. Centralia Fair Association, Centralia, October 6-7. Frankfort Fair Association, Frankfort, September 29 to October 2. Linn County Agricultural and Mechanical Association, Mound City, September 21-25; Secretary, E. F. Campbell. Rush County Fair Association, LaCrosse, October 1-2; Secretary, E. F. Brown. The Kansas City Fat Stock Show, Riverview Park Kansas City, October 29 to November 5; Secretary, Edward Haren. First Annual Poultry and Pet Stock Show, Kansas City, December 29, 1885, to January 1, 1886, inclusive; Secretary, Edward Haren.

THE STRAY LIST.

HOW TO POST A STRAY.

BY AN ACT of the Legislature, approved Feb 27, 1885, it is enacted, that when the appraised value of a stray animal exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description of the animal, 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 \$50 to \$500 is affixed to any failure of a Justice of the Peace, a County Clerk or the proprietors of the FARMER for a violation of this law.

How to post a Stray, the fees, fines and penalties for not posting.

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

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

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

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

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

If such stray is not proven up at the expiration of ten days, the taker-up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks on the same have not been altered, and 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 appraiser, 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 cost of taking up, posting, and taking care of the stray one-half of the remainder of the value of such stray.

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

Strays for week ending August 26, '85

Davis county—P. V. Trovinger, clerk.

PONY—Taken up by Wm Ward, of Jefferson tp August 8, 1885, one sorrel mare pony, 15 hands high, white on left fore foot covered with tick-marks, very old, branded K with two sides of a triangle attached on front side in such shape as to nearly form a triangle on right side; valued at \$25.

COLT—By same, one bay mare colt, supposed to be 1 year old, white on right hind foot white under bell lemlish on right fore leg above the knee; valued at \$10.

John son county.—Henry V. Chase, clerk.

MARE—Taken up by W W Butram, living 7 miles southeast of Shawnee June 18 1885, one bright bay mare, 5 or 6 years old, 15 hands high, marks of saddle on withers, few white hairs in forehead, knot on side of left hind leg; valued at \$5.

MULE—Taken up by John Myers, living in the town of Shawnee, one iron gray horse mule, about 4 years old, 12 hands high, rope brand on right hock, saddle mark on three feet; valued at \$20.

COW—Taken up by Albert Cochran living about 1/2 mile south of Olathe, one red and white spotted cow, 8 years old, not giving milk, slit on upper side and notch in end of left ear; valued at \$25.

Allen county—H W Duff, clerk.

MARE—Taken up by L. R. Pearson, of Salem tp July 19, 1885, one dark brown mare, 3 or 4 years old, both hind feet white wire cut on left fore foot; valued at \$50.

COLT—By same, one iron gray horse colt, 1 year old, marks or brands; valued at \$30.

Strays for week ending Sept 2, 1885

Osage county—C. A. Cottrell, clerk.

COW—Taken up by Joe Farley, of Melvern June 30 1885, one red-roan cow, branded E very dim on right hip; valued at \$25.

BULL—Taken up by C. C. Loomis, of Scranton, August 1, 1885, one red bull, 13 1/2 hands high, in front of and on right hip, white on end of nose and under belly; valued at \$30 50.

Woodson county—I. M. Jewett clerk.

FILLEY—Taken up by Thos. Heffern, of Owl Creek tp, July 25, 1885, one bay filley, 2 years old, three white feet and star in forehead; valued at \$60.

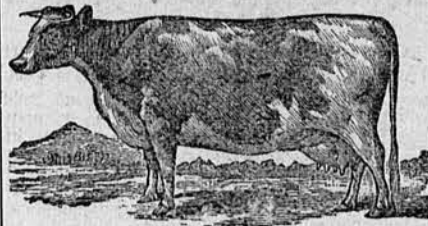
COLT—By same, one sorrel colt, 1 year old, star in forehead; value at \$30.

IMPORTED AND KANSAS-BRED HEREFORD CATTLE.

For Sale at Very Reasonable Prices. Representatives Horace, Lord Wilton, The Grove 3d, and other noted studs. Thoroughbred and high-grade bulls and heifers for ranchmen a specialty. Send for Catalogues.

G. E. HUNTON, Breeder, ARLENE, KAS.

100 HOLSTEIN-FRIESIANS

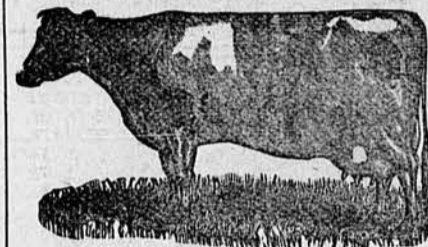


Auction!!

FRIDAY, SEPT. 18 1885. AT KANSAS CITY, MO., In Riverview Park

At the above place and date, I will sell an extra choice lot of Cattle consisting of BULLS, COWS, CALVES and YOUNG HEIFERS, Imported direct. The Cattle are large-sized, deep milkers, and all recorded. Catalogue and particulars sent upon application. Address H. M. GARLICH, St. Joseph, Mo.

Pioneer Herd of Holstein Cattle AND DUROC JERSEY SWINE.



For beef, butter, and cheese, breed HOLSTEINS. For largest return on money invested in swine, breed DUROC JERSEYS. Choice registered animals for sale by WM A. GARDNER, Oregon, Mo. Correspondence solicited. When writing mention this paper.

THE ELMWOOD HERD

A. H. Lackey & Son, PEABODY, Marion Co., KAS., BREEDERS OF

SHORT-HORN CATTLE AND BERKSHIRE SWINE.

Our herd numbers 130 head of well-bred Short-horns, comprising Cruickshanks, Rose of Sharon's, Young Mays Arabellas, Woodhill Duchesses, La vinias, Floras, Desdemonas, Lady Janes and other good families. The well-known Cruickshank bull BARMPTON'S PRIDE 49854 and the Bates bull ARCHIE HAMILTON 49792 serve our herd. We make a specialty of milking Short-horns, the Arabellas being specially noted milkers. Good, useful animals of both sexes always for sale. Premium Berkshires very cheap.

FANNY FERN HERD

Registered Poland-China Swine, Jersey Cattle, Fancy Poultry

C. O. BLANCHARD, Breeder, Ottawa, Kansas. Send for free Illustrated Catalogue.

Hart Pioneer Nurseries,

[Established, Danvers, Mo., 1857; Ft. Scott, Kas., 1865; Incorporated, 1884.] FORT SCOTT, : : KANSAS. A full line of Nursery stock, all warranted true to name. No substitution of varieties to our purchasers. Reference: Bank of Ft. Scott. For other testimonials, see our catalogue.

RIVER VIEW Stock Farm.

50 HEAD OF IMPORTED NORMAN STALLIONS

Just arrived from France, added to my stock of Norman Horses, which now numbers upwards of 100 HEAD, from 2 to 5 years old. Parties wishing to purchase first-class stock will do well to call and see my Normans before purchasing elsewhere. Prices and terms to suit purchasers. All of the above stallions were selected by myself in France this season. (Mention this paper.)

JAMES A. PERRY Importer and Breeder of Norman Horses,

River View Stock Farm, Wilmington, Ill. Fifty miles south of Chicago, on the Chicago & Alton railroad.

THE NEW IMPORTATIONS FOR 1885

Will begin to arrive about Sept. 1st. 1,000 Pedigreed Percherons

Imported and collected in 24 months at OAKLAWN FARM, Wayne, Du Page Co., Ills.



My purchases are confined to animals of the greatest individual merit and the best pedigrees, tracing through both sire and dam for many generations of the most famous individuals of the breed. We reject every animal whose sire and dam does not trace to the best lines of ancestry in the Percheron Stud Book of France. All progressive breeders demand both quality and pedigree in every animal used for breeding purposes, as the only assurance of success. The reputation of the establishment at "Oaklawn" has been developed by adhering to these principles.

FRENCH COACH HORSES.

In deference to the demand of the public for a better class of carriage horses, I shall begin the introduction of French Coaches by the importation, to arrive at "Oaklawn" Sept. 1st, 1885, of a number of the finest specimens of this type so much admired by all who have visited France. Nowhere in the world can there be seen such magnificent carriage teams as at the chateaux of the great landholders of Northern France, and in the city of Paris.

I still believe, as always, that the most satisfactory results will be obtained by the general farmer by breeding the ordinary mares of the country to the best Percheron stallions; but as there are many who have mares suitable to the production of carriage horses, and are not able to secure the services of suitable stallions, owing to their present scarcity, the introduction of high class individuals of this type will fill a long felt want. Visitors welcome. Carriages at all trains. 100-page Illustrated Catalogue free. Address

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JOHNSON BROS, GARNETT, : : KANSAS,



Breeders of and Dealers in PERCHERON-NORMAN HORSES.

Imported and Grade Stallions for sale on easy terms.

PERCHERON NORMAN, CLYDE-DALE and ENGLISH DRAFT HORSES



E. BENNETT & SON Importers and Breeders, Topeka, : : Kansas. All stock registered. Catalogues free.

The Veterinarian.

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

TUBERCULOSIS.—About a year ago one of my cows commenced coughing, and lost flesh steadily until last week, when she died. She was at first giving a good supply of milk, but went dry last summer. She was bred several times, but failed to get in calf. Can you tell what the trouble was? [The description given indicates that the cow died of tuberculosis, a disease that is frequently met with among cattle that have been closely in-bred. It is regarded as incurable, and care should be taken to prevent its appearance, by not breeding from any animals showing a tendency in that direction, as it is hereditary. Medical authorities assert that the milk from cows affected with this disease is very unhealthy for children, and it is also claimed that the use of milk or meat from such cattle is a cause of consumption in the human family.]

SMALL TUMORS.—I have a two-year-old mare colt that has got some hard lumps on the left side under the belly, right in front of the hind leg, from the size of a walnut to the size of a pea, the hind one being the largest, and getting smaller toward the front. They have been there at least six months and have not increased for the last four months. The colt is very healthy and thrifty. A horse doctor tried a tea of German camomile and oak bark to bathe the lumps, without effect; then he tried to bleed, but could not get the vein to swell. He struck twice and did not get a drop of blood. He claims the blood is impure. The colt is running in pasture all summer and was fed moderately on oats and hay all winter. When I first noticed the lumps last winter they were small and few, but increased in size and number for a while. At first were also painful when I touched them, but are not so now. [The lumps or small tumors described are of no consequence, and will probably disappear as the colt grows older. If, however, you want to displace them, you can do so by applying the following ointment: Biniodide of mercury, 2 drachms; lard, 2 ounces; mix. After clipping off the hair from the lumps, rub well in for fifteen minutes. Keep the colt's head tied up so she cannot gnaw the part, and apply fresh lard every day for a week.]

AFFECTION OF THE BRAIN.—I have a two-year-old heifer that has been ailing for six weeks. The trouble seems to be in her head. She holds her head down, staggers when she walks, and will stand for hours in one place without eating. Her horns are cold and are chipping off. Have been told that it is "horn-ail," also have read that there is no such disease. ["Horn-ail" is most certainly a myth. The trouble is evidently some brain affection that it is impossible for us to exactly specify. Brain affections occur from a variety of causes, such as heat of the sun, blows on the head, parasites within the brain, tumors causing pressure on the brain, etc. They also occur in connection with many other diseases, especially with those of the digestive organs. Pressure on the brain may often be relieved in the early stages by a good, active purgative, and ice or cold water applied to the head. The trouble mentioned having existed for some length of time, probably an active purgative would not be advisable; but see that the digestive organs are in as good a state as possible, and give a saline laxative, or purgative, if admissible—about half a pound to a pound of Epsom salts, with a little ground ginger, in a quart of water. Keep the animal from exposure to the heat of the sun. Apply cold water to the head, and give two or three drachms of the bromide of potassium twice a day in a little water as a drench, or give it in the food, if the animal will take it.]

Save time and money by using Stewart's Healing Powder for cuts and sores on animals. Sold everywhere, 15 and 50 cts. a box. Try it.

When frosty nights approach we often have one or two cold nights and then a week or two of warm pleasant weather. If squash vines bearing squashes that are almost matured can be protected through the first frosts, they will mature their fruit in the sunny days that follow.

Thousands saved from death by Dr. King's New Discovery for Consumption. Trial bottles free.

MISSOURI PACIFIC.

Elegant Equipment Between Kansas City and Omaha.

On and after July 1, 1885, the Missouri Pacific night express, between Kansas City and Omaha, leaving Union depot at 8:20 p. m., arriving at Omaha at 6 a. m., returning leave Omaha at 9 p. m., and arrive at Kansas City at 6:35 a. m. daily. These trains will be equipped with two new elegant Pullman palace sleeping cars, the Potosi and Glendale, and elegant palace day coaches. Day express (daily) except Sunday to Omaha leaves Kansas City at 8:45 a. m., arrives at Omaha at 6 p. m. These trains run through Leavenworth, Atchison, Hiawatha, and run to and from the Union Pacific depot at Omaha. Connections made at Omaha for all points west on the line of the Union Pacific, for all points north to St. Paul, and with all eastern lines from Omaha. For tickets and sleeping car berths, call on your ticket agent, or No. 1,048 Union avenue and 528 Main street, Kansas City, Mo. H. C. TOWNSEND, G. P. Agt., J. H. LYON, W. P. Agt., St. Louis, Mo. Kansas City, Mo.

STEWART'S HEALING POWDER,
CURES ALL OPEN SORES,
CUTS FROM BARBED
WIRE FENCE,
SCRATCHES,
KICKS,
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Sold Every-
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15 & 50 cts
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STEWART HEALING POWDER CO., ST. LOUIS



S. V. WALTON & SON,
Box 207, Wellington, Kansas,
—Breeder of—

IMPROVED POLAND-CHINA HOGS
Of the Highest Type.
All well pedigreed. Correspondence solicited

EXCELSIOR HERD OF POLAND-CHINAS
D. H. WEBSTER, Austin, Cass Co., Mo.

My herd is made up of individuals from noted and popular families. Are all recorded in the "Central Poland-China Record." Single rates by express. I also breed from best strains, F. Rocks, P. Cochins, B. Jays, Langshans, Wyandottes, B. Lezhorns, Mammoth Bronze Turkeys, Toulouse Geese, Aylesbury and Mammoth Pekin Ducks. Eggs in season. Send for circular and mention KANSAS FARMER.

If you want
A YOUNG SOW,
Bred to our crack
Boars;

If you want
A YOUNG BOAR
Pig;

If you want
A YOUNG SOW
Pig;

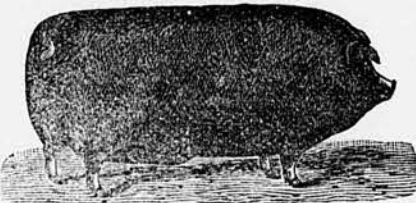
If you want
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A SPRING PIG;

POLAND-CHINA SWINE

If you want
A SETTING OF
Plymouth Rock
Eggs, at \$1.50;

If you want
a Thoroughbred
SHORT-HORN
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From \$100 to \$125.

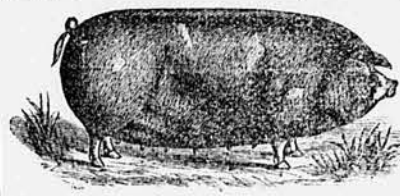
Write to
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Junction City,
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RANKIN BALDRIDGE,
Parsons, Kansas,

Breeder of Pure Poland-China Hogs. This herd is remarkable for purity, symmetry, and are good breeders. Black Jim, a prize-winner, bred by B. F. Dorsey, heads the herd. Stock recorded in Central Poland-China Record. Correspondence invited.

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



I. L. WHIPPLE, Prop'r, Ottawa, Kas.
I have for sale a fine lot of young pigs sired by Jay-hawker 2639, Ottawa King 2885 (the champion hogs of Franklin county), and Buckeye Boy 2d 2219, Ben Butler 2977, Leek's Gilt-Edge 2887, which are very fine breeders of fashionable strains. My sows are all first-class and of popular strains. I also have an extra fine lot of Duroc Jersey Red pigs for sale from sires and dams that have never been beaten in the show ring in four counties in Kansas. I have hogs of all ages in pairs or trio of no kin, for sale. Herd has taken over twenty prizes this last year. My herd has never had any disease. Stock all eligible or recorded in Central Record. Please call and see stock, or write and give description of what you want. Inquiries promptly answered. Farm, three miles southeast of Ottawa, Kas.

Manhattan Herd of Berkshires



SOVEREIGN DUKE 3819.—(From Life, by Lou Burk.)

SOVEREIGN DUKE 3819, at head of famous Manhattan Herd. Among many other honors, elsewhere, this splendid sire won five blue ribbons during two successive years at the great St. Louis fair. Inc. using sweepstakes as best boar of a year or breed, each year.—a record never attained by any other boar. At the St. Louis and other leading fairs of 1882, the Manhattan Herd sustained its well-earned prize-winning reputation of former years by winning a majority, over all competitors, of the premiums competed for, being 13 sweepstakes and 58 prizes for that year. Until the present time I have been unable to supply the demand from some fifteen States and Territories for my swine, but I now have about 20 very choice young Boars and Sows old enough to use, that I will sell at prices to suit the times, as well as Spring Pigs, now ready to ship. A case of Cholera has never occurred in my Herd, which has come through the spring and summer in very thrifty condition. Twelve different families of Sows and five noted Boars in use. Satisfaction guaranteed. Send for Catalogue to

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ABILENE HERD
—OF—
BERKSHIRES
FOR 1885.

COMPRISING the choicest strains of blood bred to perfection, including ten different families known to fame, such as the Sallie Sweet Seventeen, Cassanara and Gipsy families. At the head of my herd stands

EARL OF CARLISLE 10459,

A son of Imp. Royal Carlisle 3433 and Imp. Fashion, and Duke of Wellington 13393, winner of second prize at St. Louis Fair in 1884, under one year old. My pigs this spring are very fine, from five different boars. I never have had a case of disease in my herd of any kind. Have some choice Boars now ready for service, also one young **SHORT HORN BULL**—fine individual and fashionably bred. I would always prefer parties to

Come and See My Stock Before Purchasing,

But orders trusted to me will receive my own personal attention and will be filled with care, for I will not send out stock that I would be ashamed to keep myself. Catalogues will be ready soon. Correspondence solicited. Come and see or address
JAMES ELLIOTT, Abilene, Kansas.

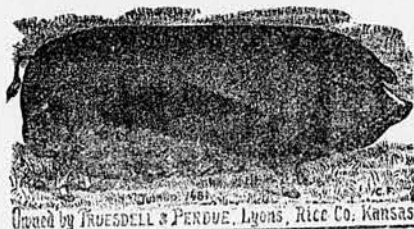
TIMBER LINE HERD OF
HOLSTEIN CATTLE and POLAND-CHINA HOGS.

HOLSTEINS.
We are now ready to supply the Western trade with Holstein Cattle—Bulls, Cows and Calves. Also Grade Cows (bred or unbred) and Calves. By carload or single animal. We claim that we have the best herd west of Missouri, both in points and record. Our prices are reasonable. We are glad to have persons call and see for themselves. We invite correspondence.

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We also have an extra lot of Poland-China Hogs, from a sucking Pig to a four-year-old sow. Our Hogs are made up of the best blood that money can buy, and to prove our claims we will sell by measure, giving points; and we guarantee all stock to breed, or to be replaced by animals that will breed. Please ask for what you want.

W. J. ESTES & SONS, ANDOVER, KANSAS.

TRUESDELL & PERDUE.



Bred by TRUESDELL & PERDUE, Lyons, Rice Co., Kansas.

Breeders of Thoroughbred Poland-China Swine Lyons, Rice Co., Kas. Our herd carries the blood of the most noted strains, headed by three of the best boars west of the Mississippi river. 100 choice show pigs now for sale; also sows bred, and boars ready for service. Stock recorded in the American Poland-China Record. Correspondence promptly answered. Prices reasonable and satisfaction guaranteed.

THOROUGHbred POLAND-CHINAS



"KING STEVENS" VOL. 5.

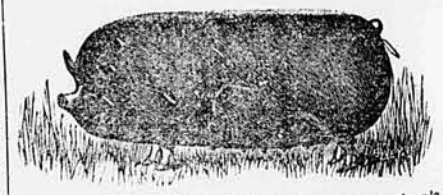
As produced and bred by A. C. MOORE & SONS, Canton, Ill. The best hog in the world. We have made a specialty of this breed for 38 years. We are the largest breeders of thoroughbred Poland-Chinas in the world. Shipped over 700 pigs in 1883 and could not supply the demand. We are raising 1,000 pigs for this season's trade. We have 160 sows and 10 males we are breeding from. Our breeders are all recorded in American P.-C. Record. Pigs all eligible to record. Photo card of 48 breeders free. Swine Journal 25 cts. in 2 cent stamps. Come and see our stock; if not as represented we will pay your expenses. Special rates by express.

EMPIRE BREEDING FARM.

G. M. EMBICK, M. D., Brookville, Ill. 18 Holstein Friesian Bulls, 100 Victoria Pigs for sale at living rates; now is the time to procure choice stock. 30 varieties of Fancy Poultry. Write for what you want. JAMES FAGER, Manager

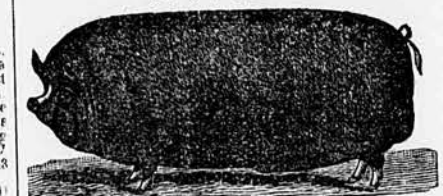
Chester White, Berkshire and Poland-China Pigs, fine Setter Dogs, Scotch Collies, Fox Hounds and Beagles, Sheep and Poultry, bred and for sale by W. GIBSON & Co., West Chester, Chester Co., Pa. Send stamp for Circular and Price List.

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—OF—
Pure-bred Berkshire Swine.



I have thirty breeding sows, all matured animals and of the very best strains of blood. I am using three splendid imported boars, headed by the splendid prize-winner Plantagenet 2919, winner of five first prizes and gold medal at the leading shows in Canada in 1881. I am now prepared to fill orders for pigs of either sex, not akin, or for matured animals. Prices reasonable. Satisfaction guaranteed. Send for catalogue and price list, free. B. McCULLUGH, Ottawa, Kansas.

PURE-BRED
Berkshire and Small Yorkshire
SWINE.



We are breeding 25 of the best selected sows of the above named swine to be found in the country. Direct descendants from Imported Sires and Dams. We are prepared to fill orders for either breed, of both sexes, at the very lowest prices. We have tried Small Yorkshires thoroughly, and are satisfied that they cannot be excelled as a profitable hog to raise. They are very docile and mature rapidly. Send for prices and catalogue to
W. H. BOUTH & SON,
Winchester, Jefferson Co., Kas.

This, That and the Other.

It is easy enough to play base ball if you have little boys to chase the ball.

"No man is thoroughly bad" says some one. We doubt it, look at the plumber.

A piece of solid cast iron will float on the molten metal as readily as wood on water.

It is said that Mrs. Hayes' husband feels a head taller since his favorite dominick hatched fourteen chickens out of fifteen eggs.

It is estimated that in 1882 the number of passengers carried by all the railroads in all parts of the world was 2,400,000,000, or an average of 6,500,000 daily.

The Prince of Wales has been presented with a copy of the revised Old Testament. Albert Edward says he had no idea they were so strict in those days.

Europeans find the heat of Algeria a great obstacle to agricultural work, and, to avoid much of it, they propose making harvests at night by aid of electric light.

Edison seems to have so many patents on electricity that we expect to hear of his suing Providence shortly for making use of lightning without paying a royalty.

There is a great deal of religion in this world that is like a life preserver—only put it on at the moment of immediate danger, and then half the time put on hind-side before.

A farmer in Barnes county, Dak., has a field of barley that grew thirty-eight inches in thirty-eight days, just an inch a day from sowing. It is believed no climate or soil can beat that.



FOR CLEANSING THE SKIN and Scap of Birth Humors, for allaying Itching, Burning and inflammation, for curing the first symptoms of Eczema, Psoriasis, Milk Crust, Scall Head, Scrofula, and other inherited skin and blood diseases. CUTICURA, the great Skin Cure, and CUTICURA SOAP, an exquisite Skin Beautifier, externally, and CUTICURA RESOLVENT, the new Blood Purifier, internally are infallible. Absolutely pure. Sold everywhere. Price CUTICURA, 50c; SOAP, 25c; RESOLVENT, \$1. POTTER DRUG AND CHEMICAL CO., BOSTON, MASS.

Self Cure Free Nervous Debility, Lost Manhood, Weakness and Decay. A favorite prescription of a noted specialist (now retired.) Druggists can fill it. Address DR. WARD & CO., LOUISIANA, MO.

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Morton's Lightning Arrester FOR WIRE FENCES. Preserves fences from damage and live stock and persons from being killed by lightning. Agents wanted. Address W. T. DAVIDSON, Abilene, Kas.

Ritchie's Safety Attachments FOR HORNED ANIMALS. Or Bull Conqueror. Pat. April 8, 1884. Entire Patent or Territory for sale. \$5 and \$5.50 per set. Sent to any part of U. S. on receipt of price. Circular and testimonials sent on application. Enclose stamp for reply. Address GEO. W. RITCHIE, Arrowsmith, Illinois.

COOK FEED FOR YOUR STOCK WITH THE TRIUMPH STEAM GENERATOR. It will save 1/2 to 2/3 of your feed, and your stock will thrive better and fatten quicker. Send for illustrated circular. Address RICE, WHITACRE & CO., 42 W. Monroe St., Chicago.

CHALLENGE WIND MILLS never blow down, a record no other mill can show. Sent on 80 days' trial. Also feed grinders, shellers, pumps, etc. Agents wanted. Catalogues free. CHALLENGE WIND MILL AND FEED MILL CO., Batavia, Kane Co., Ill.

Fruit Evaporator! Stutzman Improved, best make for farmers and fruit-growers. Within the reach of all. 8 sizes. Price, \$8.00 to \$50.00. Address LIGONIER M'FG. CO., Ligonier, Ind.

Prices Greatly Reduced for 1885 SAMPLE MONARCH POTATO DIGGER, Only \$10. SENT ON 60 Days' Test Trial. Agents Wanted. Liberal Discount to the Trade. Send for Wholesale Prices etc. MONARCH MFG. CO., 206 State St., Chicago.

THE \$200 Saw Mill Original 1500 to 4000 FEET of lumber can be cut in a day. Built in a first-class manner. The Best Mill made. Many hundreds of these in use, giving universal satisfaction. We have the best Mills of larger sizes, Portable and Stationary. Send for circular 1. LANE & BODLEY CO., Cor. John and Water Sts., Cincinnati, O.

TIMKEN SPRING VEHICLES. OVER 400,000 IN USE. Easiest Riding Vehicle made. Rides as easy with one person as two. The Springs lengthen and shorten according to the weight they carry. Equally well adapted to rough country roads and fine drives of cities. Manufactured and sold by all leading Carriage Builders and Dealers.

ZIMMERMAN FRUIT & VEGETABLE EVAPORATOR. Made of Galvanized Iron, 5 SIZES. 16,000 SOLD. Economical, Durable and Fire Proof. Will pay for itself in 30 days use, out of sale of its own products. FREE! Our Illustrated Catalogue and Treatise. Address ZIMMERMAN M'FG CO., BURLINGTON, IOWA. AGENTS WANTED.

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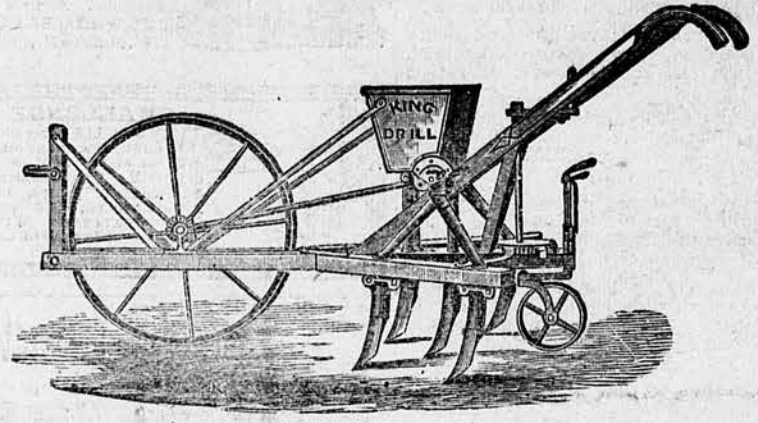
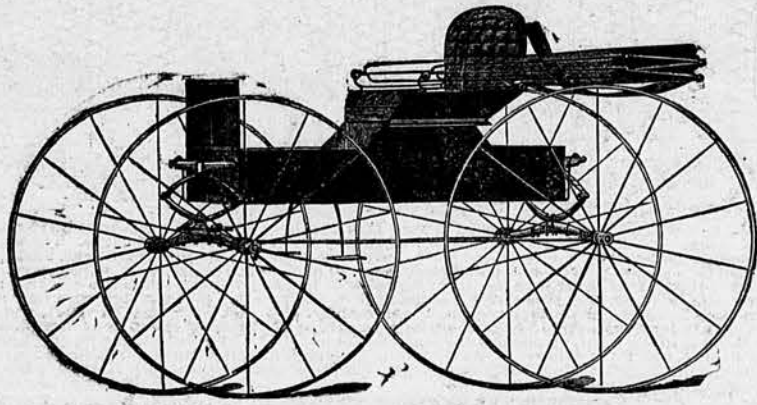
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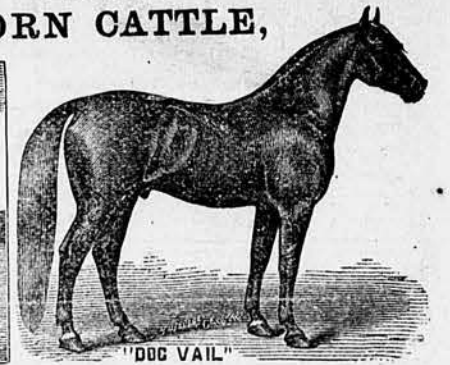
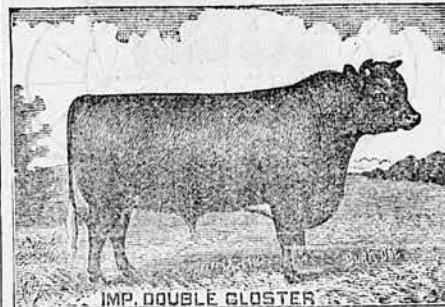
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BUTTER RECORDS:

Five Cows have averaged 20 lbs. 7 ozs. in a week. Nine Cows have averaged 19 lbs. 3/4 oz. in a week. Fifteen Cows have averaged 17 lbs. 6 ozs. in a week. Six three-year-olds have averaged 14 lbs. 8 ozs. in a week. Eleven three-year-olds (the entire number tested) have averaged 13 lbs. 2 ozs. in a week. Six two-year-olds have averaged 12 lbs. 11 ozs. in a week. Fifteen two-year-olds (entire number tested) have averaged 10 lbs. 8 3/4 ozs. in a week. The entire original imported Netherland family of six cows (two being but three years old) have averaged 17 1/2 lbs. in a week. This is the Herd from which to get foundation stock. Prices low for quality of stock. SMITHS, POWELL & LAMB, Lakeside Stock Farm, Syracuse, N. Y.

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