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THE NURSERYMEN, FLORISTS AND SEEDSMEN.

The American Association Holds Its Tenth Annual Session at Chicago.

Special correspondence KANSAS FARMER

The tenth annual convention of Nurserymen, Florists and Seedsmen convened at Weber Music Hall. Nearly three hundred members, comprising representatives from every State in the Union, were in attendance. President Edgar Sanders, of Wright's Grove, Chicago, called the meeting to order, and after the preliminary arrangements he delivered his annual address, in which he reviewed briefly the history and work of the association since its organization in Chicago ten years ago. The florists intend now to hold an annual convention of their own hereafter, the first annual session to be held next August in Cincinnati. This he considered a good thing, for while nurserymen and florists had many things in common, but stood on a different plane as to their methods and wants, consequently separate and joint associations was commendable. He argued that the drummer or "tree agent" was a necessary evil and not so much an evil after all.

G. H. Miller, Norwich, Ohio, gave a paper on "Nurserymen as Teachers of Horticulture" and W. F. Heikes, Huntsville, Ala., presented a valuable paper on "The effect on distant removal of Trees and Plants." Both these papers were discussed as well as other matters pertaining to the nursery business. A number of verbal reports were made concerning nursery stock which showed that stock was in fair condition, with a slight increase in the supply, and business was reported to have been very good.

The evening session was devoted to a private business session of the Nurserymen and Florists Protective Association. This organization has a membership of nearly one hundred.

On the second day the first paper presented was upon the subject of "Labor Saving Implements and Devices used in the Nursery." U. B. Pearsall, of Fort Scott, Kansas, rose to a question of privilege urging that the plan of the chair appointing a committee to nominate officers for the association was not in harmony with Democratic institutions and recommended instead that the members from each State should select their own vice president and then the various vice presidents should select the officers for, and the place of meeting of the association. His suggestions, while they did not take effect at this meeting, were made a part of the constitution and by-laws and hereafter will be in effect.

The transportation question next came up and occupied the earnest attention of all present. The delays of shipment of nursery stock has always been a source of annoyance and loss to nurserymen. Mr. Pearsall, of Kansas, was the only member of the committee on transportation that had done any effective work. He had preferred an argument and statement of the wants and needs of nurserymen and others interested and presented it to the various railroad and express companies and reported favorable progress. The association then appointed the following committee on transportation: U. B. Pearsall, Fort Scott, Kas.; J. Van Lindley, Salem Junction, N. C.; and E. Burrows, Canton, Mo.

The following officers were elected for the ensuing year: The Hon. Norman J. Cole-

man, of Washington, D. C., for President; Franklin Davis, Baltimore, Vice President; D. W. Scott, Galena, Ill., Secretary; A. R. Whitney, Franklin Grove, Ill., Treasurer; Executive Committee, George B. Thomas, West Chester, Pa.; S. D. Willard, Geneva, N. Y.; C. L. Watrous, Des Moines, Iowa; Vice Presidents—For Alabama, W. F. Heikes, Huntsville; Arkansas, W. E. Thomas, Little Rock; California, C. W. Reed, Sacramento; Colorado, D. S. Grimes, Denver; Dakota, L. Preston, Huron; Delaware, Randolph Peters, Wilmington; District of Columbia, William Saunders; Florida, A. J. Bidwell, Orlando; Georgia, U. S. Sanford, Thomasville; Illinois, J. B. Spaulding, Springfield; Indiana, John Freeman,

grand treat for all and will certainly prove a big card for Lord & Thomas.

The last session was devoted to discussions and business matters, also a number of excellent papers were presented of special interest to nurserymen. A paper entitled "The best Manner and Time for Budding and Grafting" by W. H. Albaugh, of Ohio, is of general interest. To obtain good results, said the speaker it is necessary to have good and healthy stock. The best soil is a fertile clay loam, enriched with the barn-yard manure. Stocks are generally budded in the order of apple, pear, peach, plum and cherry. The bud should be cut long enough and slipped into position with as little injury to the inner bark of the stock

variety of apple known as the northwestern greening.

After adopting the voluminous report of the Committee on Stock Reports, the association adjourned the Tenth Annual Convention, which was considered one of the most successful ever held. H. Chicago, June 20, 1885.

Crop Prospect in Southern Kansas.

Kansas Farmer:

At this writing the crop prospect in this section of the state is much brighter than heretofore. Most every farmer questioned on the subject admits that the injury to the wheat crop by winter killing or freezing was over estimated and says the crop is coming out much better than was expected. The statement of Secretary Sims of the state board in his report for May that the prospects for the wheat crop was much poorer than even the preceding month, and that the yield would be far below the expected figures, is not borne out by the condition of the crop in this section of the state. Wheat has filled and started out much better than was expected in the early part of the season and the yield will be much larger than was anticipated, although not a full crop. Some fields that farmers intended to plow up in the early spring but failed to reach on account of the pressure of other work will yield from ten to fifteen bushels to the acre. Some fields of wheat were plowed under and sowed to millet or planted to corn, but most of them would no doubt have made a fair crop of wheat if left to grow. A few reports have come in of damage to wheat by the Hessian fly, but only a few, and the loss by these pests is not worth mentioning.

Corn, though backward, is coming on finely and promises now a good crop if seasonable rains follow hereafter. The excessive spring rains rotted considerable seed in the ground necessitating replanting, and drowned out some corn already up, but the crop is recovering remarkably well and some fields present a fine appearance. Some farmers even report a better crop of corn and wheat both, than they have ever had before. On the whole the indications are for an average crop of wheat with the prospect of a fine crop of corn. Oats never were better and promise a heavy crop. A fine hay crop is assured, grass being unusually luxuriant.

There is an abundance of all kinds of fruit, and so far as gathered of the best quality with the same prospects for that coming on later. Peaches are unusually abundant and fine.

Report comes from one locality of damage to corn by the worm, but this is not general and no uneasiness is occasioned. The wheat harvest has opened up in the Arkansas valley and will soon be generally engaged in by the growers throughout this section of the state. The fair yield, together with the good prospects of an advanced price, makes the people here quite hopeful of the outcome of the crop. REPORTER. Winfield, Kas.

A great Paris drapery house is selling "bath bags," by the use of which "refined people" may obtain a sort of velvety, oatmeal soap complexion ablution, for the moderate sum of eight cents. These queer articles consist of a bag containing half a pound of bran, some meal, and a little powdered soap. On wetting and pressing the bag a lather is produced, and, at the same time, a soft pad for rubbing purposes.



FALL TERM
Opens September 9th, 1885.

Knightston; Iowa, Silas Wilson, Atlantic; Kansas, J. W. Latimer, Pleasanton; Kentucky: R. W. Downer, Fairview; Louisiana, U. K. Klingman, Homer; Maine, Thos. Jackson, Portland; Maryland, William Carse, Baltimore; Massachusetts, J. W. Manning, Reading; Minnesota, B. M. Emery, Lake City; Michigan, L. G. Bragg, Kalamazoo; Missouri, J. M. Boyles, St. Louis; New Jersey, J. T. Lovett, Little Silver; Nebraska, J. T. Allen, Omaha; New York, George G. Atwood, Geneva; North Carolina, J. Van Lindley, Greensborough; Connecticut, Edwin Hoyte, New Canaan; Ohio, S. D. Baer, Dayton; Ontario, E. N. Morris, Welland; Oregon, C. Dickinson, Salem; Pennsylvania, Abner Hoops, West Chester; Tennessee, A. W. Webber, Nashville; Texas, J. R. Johnson, Dallas; Virginia, E. H. Bissell, Richmond; Wisconsin, George P. Pepper, Pewaukee; Washington Territory, A. U. Salmon, White Salmon.

Washington, D. C., was selected as the place for the next annual meeting, June 1886. Little Rock, Arkansas, and Dallas, Texas, made an effort to secure the next meeting, but the places were declined with thanks.

The event of this meeting to be remembered was the two hours excursion upon Lake Michigan upon the steamer Gazelle. The excursion was a complimentary benefit given by that enterprising and thoroughly reliable firm of advertising agents, Lord & Thomas, of Chicago. The excursion was a

as possible. Bass bark, mattings and like material is generally used for tying. Cotton warp is found preferable to all other ties. The height at which the bud should be inserted is of some importance. The best plans seem to be to level off the earth near the stock, and bud within an inch or two of the ground. It is advisable to use a pair of long-handled clippers or shears, with short, hooked jaws, and to cut off the stocks about six inches above the buds: This can be best done in the spring, as it does not require precision in the cut. A weakly, small stock, could not be expected to succeed as well as a seedling or if grafted, and the same principle held good in budding. Grafting upon foreign stock is preferable, but grafting is now used but little except for apple trees, and budding is rapidly displacing the practice. The speaker dwelt at some length upon the minute details of grafting, and expressed it as his opinion that "crown grafting" was the best form to be observed. The extra cost of using "whole roots" will be amply repaid in the greater number of first-class trees that would result upon the same land. Messrs. J. B. Spaulding, of Illinois; George J. Kellogg, of Wisconsin, and a number of other gentlemen indulged in a liberal discussion of the paper. Mr. M. A. Hunt, of Chicago, next discussed the question, "Is Steam or Hot Water Preferable for Heating Green-houses?" A number of practical experiments made by some of the leading growers of the country were cited by the gentleman, who favored the use of steam as against hot water. With steam the temperature could be better and easier regulated, and much fuel would be saved. A paper on "New Apples; How to Produce Them," prepared by Mr. Charles Patterson, of Kirksville, Mo., was read. The writer advocated the planting of apples, and the sending out of the plants in order to exclude Russian and foreign varieties. Mr. Daniels, of Wisconsin, introduced a new

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.
 July 7 and 8—Jas. Richardson, Short-horns, Kansas City.
 October 28—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.

Early and Careful Horse Training.

The small number of accidents from the frightening of horses or from their viciousness is surprising when one thinks about the manner in which horses are trained and their irritability and readiness for excitement. A rustling leaf will frighten some horses, and moving grass or leaves, little spurts of dust in the road, passing trains and wagons, buggies a hog in the way, a cow, a sheep, or a stick of wood. The flopping of a wagon cover, or buggy curtain has often set horses wild. We know of a case where a family was badly shaken up and a good deal of damage done by a horse frightened on looking at the wagon to which he was hitched. He dashed away and soon had things strewn along the road.

A horse ought not to be any more easily frightened than a man, and would not be if he were thoroughly trained. He ought to be treated on the same plan that Arabians adopt in treatment of their horses. His training ought to be begun in colthood, early, and never abandoned. There is nothing unnatural or unreasonable in a horse becoming frightened upon sudden appearance of uncommon objects when it is known that they were allowed to run at will until the day they were caught up and put under the breaking process. A colt is as easily trained as a sheep, and may be made just as gentle. There is, of course, much difference in the degree of intelligence of horses, and it may be said that the best blood is the easiest to handle and make docile. The best blood horses are always the most reliable when carefully trained. It is true, too, that there is much difference in the natural temperament of horses of the same grade or stock. Some are naturally vicious, but even they can be so handled, if the work is begun early, as to greatly counteract their inclination to go at the wrong time.

In all cases, no matter what the natural temper is, early and careful training of horses is important in the line of comfort in handling and safety in use. To familiarize them with things common is of the greatest importance, and that early in life. They ought to be trained to lead and be lead about to see and hear things which would never come to them in a pasture field or barn, and this treatment should be begun at the earliest possible period and continued. The breaking of a colt ought to be a process beginning when it is a few days old and continued until he has served a full period of apprenticeship. It ought not to require the services of half a dozen men to break a colt. He ought to be so well trained that there would be no fear of trouble when he is first hitched up.

Horses with high mettle, says an exchange, are more easily educated than those of less or dull spirits, and are more susceptible to ill training, consequently may be good or bad according to the training they receive. Horses with dull spirits are not by any means proof against bad management, for in them may often be found the most provoking obstinacy or vicious habits of different character that render them almost entirely worthless. Could the coming generation of horses in this

country be kept from their colthood days to the age of five years in the hands of good, careful managers there would be seen a vast difference in the general character of the noble animal. If a colt is never allowed to get an advantage it will never know that it possesses a power that man cannot control; and if made familiar with strange objects it will not be skittish and nervous. A gun can be fired from the back of a horse, an umbrella held over his head, a buffalo robe thrown over his neck, a railroad engine pass close by, his heels bumped with sticks, and the animal take it all as a natural condition of things, if only taught by careful management that he will not be injured thereby. There is great need of improvement in the management of the horse—less beating wanted and more education.

The Coming Farm Horse.

Success of breeders in establishing certain types of animals has been wonderful, and yet it is a fact that the horse most needed by ordinary farmers and by city people is not yet here. That is to say, that there is no established breed, fixed in its characteristics, like the Thoroughbred or Norman, that is just what the general farmer and the city man of moderate means really needs. The running and trotting breeds are too light and the draft breeds are too heavy. A horse that combines saddle and harness qualities, that has action and strength—nerve and muscle combined, that will, when wanted, make a good plow team strong enough for average work on the farm with ambition and show enough to look and act well in a carriage or under the saddle, is the needed horse—what in England would be called a ride-and-drive horse. The Cleveland Bay comes nearest among the established breeds to the horse we are writing about, but the numbers of this excellent stock are so small as to give rise to doubts about the genuineness of the breed—that is, its fixedness of type. However that may be, this is not the place to discuss it; we merely desire to repeat suggestions made in these columns in past time to the effect that the best breed of horses for American farmers may be had by breeding the Cleveland Bay stallion on our best common mares.

The ride-and-drive horse is a necessity. He is needed and he must come. The serious question is, what shall be the starting point? A suggestion was made some years ago that the foundation for such a breed would be found in the Thoroughbred stallion and a mare of one or other of the heavy draft breeds. This has been advocated by a few writers on both sides of the Atlantic. Mr. C. J. Douglass, an Englishman says:

"To say that every Shire or Clydesdale mare possessing the requisite number of crosses to constitute her eligible for registration in a stud book would be a suitable animal to mate with a thoroughbred sire would be absurd, but by careful selection a very large proportion of the right kind of animals are to be found. Putting aside altogether all gummy-legged, heavy-headed brutes, we constantly come across well bred draft mares with bone thoroughly clean, though with plenty of silky hair, with action all round and courage to carry it out."

Mr. Muntz, Toronto, Canada, says: "What we have to consider is the best way to re-establish a breed of horses which once existed—were in fact the rule, not the exception. To do this we must ask what causes led to the disappearance of this most useful class of animal. It would appear that these causes are manifold. The main ones I conceive are breeding too much for speed, and breeding from old and decrepit mares. The raisers of horses, other than cart horses, for years did

not turn their attention to producing a good, sound-constituted, compact animal."

The *Western Agriculturist*, Quincy, Illinois, says:

All unite on the one point that the breeding must be continued for a number of generations to successfully establish the type. Therein is where our former efforts have failed; the first and second cross has failed and despairing on the very eve of success, we did not realize the important consideration of continuing the same breeding far enough to gain the desired success, though many of our readers will justly conclude that to use recorded draft mares to any other than recorded draft sires would not be profitable in America at the present high price of draft horses, to say nothing of the price of the thoroughbred and whether any carriage horse will sell higher than either the thoroughbred or recorded draft. With that view of the case there are few who are public spirited enough to undertake the task, but to the man or men able to carry it out to a successful issue and produce a fine carriage horse, the equal of the Cleveland Bay or the French coach horse, awaits fortune and fame.

Other writers might be quoted, but these are enough to show that there is a current of thought moving in that direction. It shows that there is a growing demand for a certain type of horse that we have not now except in numbers too small to be available generally. We fully agree with these writers and others, who, like them, see the need of the as yet unknown breed, but it does not strike us that this is the way to start in hunting up the new breed. Efforts already made in this direction were disappointing. Quoting our contemporary, above named:

The remarkable success of our draft sires upon our common mares was an easy victory, as the impressive character of these sires is almost invariably stamped upon the foal. The strong breeding sire has outbred the common mare, but to couple the thoroughbred sire with a full blood draft mare, neither predominates and the first cross usually is a disappointment.

The fact here noted is the keynote in breeding. "The success of heavy draft sires upon our common mares, was an easy victory." So has been the breeding of thoroughbred stallions on our common mares; that is, in producing an animal better than the stock to which the dam belongs. So, also, may we cite the effect of breeding good stallions of any breed on small or pony mares, the best results always following the use of stallions of general make-up nearest like that of the mares.

If there is any instance in history where lighter bodied stallions were successfully used on heavier bodied mares, it was in case of the Arabian stallion on the English common mare, from which finally came the Thoroughbred, but the object in that case was to obtain greater speed and endurance without reference to size. In the case we are here discussing, if the suggestions of the writers above quoted be followed, we would be reducing or deteriorating the good qualities of both sire and dam. The Thoroughbred has action and speed, his offspring from the draft mare, would have less of both these desirable qualities; the heavy draft mare has great strength and weight, her offspring from the Thoroughbred sire would be inferior in both these good qualities. The cross would not be a strengthening of any of the good qualities of either of the progenitors, but a weakening of all. That is the object of the cross—to take from, to weaken the best qualities of the parents. That is not good philosophy in breeding. The good rule is, to improve at least one of the parent breeds in the beginning and never go backward, never deteriorate. The blood of the Thoroughbred is as good as that of the pure

Arabian. The Norman is as good today as he was a thousand years ago, though he has been used to build up inferior stock. The same principle holds good in other departments. The Short horn or Hereford bull or cow, or the Jersey or Holstein is as good today as they ever were and better.

We believe the coming farm horse will be a breed built up from our common American mares, by the use of Cleveland Bays or a breed like them first established by grading up common stock from Thoroughbred stallions. We believe the secret lies there. We have size, and bone and muscle in our common mares, but they lack nerve, energy, grace and endurance. These qualities would be supplied by the more lively, vigorous and graceful Bay; and while the progeny would be an improvement on the common stock in the first instance, the tendency would be that way continually. The man who will undertake to thus set up the beginning of the coming farm horse and establish his breed, will rank among the benefactors of men.

Summer Ailments.

Summer ailments on the farm! It is a question of no mean consequence, and constitutes perhaps the most difficult part of the young agriculturist's education. The too general idea is, or was in better times, that any slow lad would do for the church or a farm. Men know better nowadays. So long as the land was clean and rich to begin with, and good stock upon it, and a tidy balance in the bank; when prices for meat and corn were fairly remunerative, it was the easiest thing in the world for a mere lad to take a farm and find things run on in a profitable groove. One great help to the beginner in those days, however, was that the laborer was so much better skilled. He had an all-round education. He could milk, and thatch, and ditch, and plow, each in turn as occasion required; whereas nowadays you can scarcely get your stacks covered before rain to save your life, and the main accomplishment of the farm lad is that he can follow a plow which goes of itself on wheels. I will take up this subject at another time.

The question that lies before us had its value in those days no less than now, though much was left to the farrier or cow-leech that now is taught in colleges, on scientific principles. Bleeding was all the go in those days, a remedy perhaps too much overlooked now. To take the first complaint that the farmer encounters, as the grass grows, and it is to go for an hour's anticipated enjoyment into the meadows and find one or more of those beautiful heifers, which in their boxes were the pride of your eye, lying down, breathing hard, heavily fever-stricken—and unfortunately beyond all hope of recovery. It is a sort of apoplexy akin to that which attacks and usually carries off the promising human child of ten years. This cattle disease arises from an overfullness of blood. It is of a purely inflammatory character, but the inflammation is so intense as speedily to destroy the powers of nature. The capillary vessels have been working at such a furious pace as to fill and clog every venous canal. The congestion prevails in the cranium as well as in other parts, and the distended vessels press upon the substance of the brain, the pressure reaching to the commencement of the nerves, hence debility and staggering, and almost perfect insensibility. As the congestion takes place early, the coma, or stupor, is early in its appearance. But there is no occasion for an extended professional description. I would only say that of this dreadful disease, "quarter-evil," "joint-murrain," "black-quarter," whatever name it may go by, that there are few preliminary symptoms of the inflammatory fever. The farmer may go out into his meadow and find the unhappy victim at its last gasp, or at least laid out upon the luxuriant grass with its head extended, this being brought, as much as it can manage it, into a horizontal position, the eyes protruding and red, the muzzle dry, the nostrils expanded, the breath hot, the root of the horn considerably so, the mouth partly open, the tongue enlarged, or apparently so, the pulse full, hard, and from 65

to 70; the breath quickened and laborious; the flanks violently heaving, and the animal moaning in a low and peculiar way. The back will swell, and the loins crackle with a peculiar emphysematous noise, as if some gas were extricated in the cellular membrane, and process of decomposition had commenced during the life of the animal. In fact, when a case is found to have once begun, it is a bad job. There is seldom or ever the possibility of a cure, so rapidly does the foul, corrupting dissolution run its course within the frame.

Prevention is the farmer's course. In this, as in other ailments which I shall come to just now, the great thing is to avoid the disease coming on. The best way to do so is to keep the youngster from its earliest days fully thriving—not to allow it to lose its "calf's-flesh"—but gradually, as weaning time approaches, to give it extra good feed, especially oil cake, which seems to have a specific virtue in the prevention of this disease. The great cause of the ailment is, to speak roughly, the blood vessels being overcharged—being burst up by incursion of a too violent flood—the vein pipes being too small to carry the sudden volume off; whereas by a process of gradual strengthening with the juices of rich food, preparation is made for the abnormal flush, and a vent of strengthened channel provided.

There is, in fact nothing like making provision against disorder. The disease usually occurs when the cattle are suddenly turned out of their winter stalls upon a strong meadow growth of spring grass, or in the autumn upon a rank "aftermath." It is the sudden change to too luscious and stimulative food that does the mischief. The best mode of prevention is to keep the young animals well fed and in gradually improving condition from the first, never to let them get too low in condition, and never to force them above measure; in other words, to habituate them by degrees to the richer diet. Prevention is the line to take, for when once an animal is down with this disease there is little chance of its recovery. It is an ailment chiefly of the young. Something kindred to this sudden and fatal affection, at least as regards its cause and its danger, is the milk fever, or "dropping," of the grown cow. Here, again, prevention is the line to take. For three weeks or more before her calving is expected, the pregnant cow should be made to work hard for her food—should be kept on a pasture so bare that, as the saying is, you might whip a flea across it. This treatment will eliminate any inclination to inflammatory action. Some cattle are more liable to an attack of this sort than others, especially the natives of the Channel Islands. It is very sad to think that in nine cases out of ten these attacks are brought on by overkindness. The owner, especially if of the softer sex, determines to give her pet a treat, and so keeps her oftentimes fetlock-deep in trefoil and clover, blowing the system up to over heat. In this disease, as well as in the last, there is little hope when it has once fastened on its victim. If she be saved, curiously enough it will be by the pouring down her throat of some bottles of whisky. I have known a cow that appeared almost gone take fully two and a half bottles of this spirit, and then get well. Another summer ailment is hoven, the getting swollen through gases evolved in the stomach from too heavy a load there of wet grass or juicy clover. Some practitioners thrust a tube down the throat, allowing the bad air to escape, which, however, rapidly accumulates again, the cause not being removed. More effectual is the dosing with a weak solution of chloride of lime, which at once precipitates the gas, and affords perfect relief. In this instance again, prevention is better than cure. Be careful how you turn a cow or sheep into clover or long, wet grass.

Under this heading I may include another misfortune that befalls the cow, and that is, the being driven headlong over the plain, with tail erect, and under the direst consternation, by the swiftly sudden sound of the gadfly in the air. What nature meant by providing this insect it is impossible to make out. It does the greatest possible harm by sending the whole herd, young and old, helter-skelter in a gallop that does infinite damage to the heavy in calf, as well as to the youngsters in tow—the one being apt to cast their inward burden, and the whole from running deep into the nearest water, to court danger in the colds they catch, not to speak of the loss of condition

they incur through being hustled and rattled about. Then when their pest has caught them and deposited its eggs, sometimes the poor things' backs will be covered with great warbles, as big as flbert, and thick as raisins in a pudding. It has been recommended lately by an English naturalist to insert a mercurial ointment into the lump that the growing grub makes on the back, to kill it there, instead of waiting till it is ripe to squeeze it out, for if that be done big holes are left in the hide. There is at this moment in a shop window in Hereford a piece of hide perforated as though by a shower of bullets, and, therefore, worthless. In this case, again, prevention is better than cure. Some breeders tar the palings or rails of the pasture, against which the cattle, rubbing their horns, get a scent upon them which is offensive to the insects and drives them off. Others hang a bottle or two to the boughs of the favorite trees, under which they crowd for their noontide siesta, of diluted carbolic acid, which again this pestilent insect avoids. It is no positive protection to drive the herd into yards during the heat of the day, for even if the gadfly does not follow them there, they will be annoyed and fretted by a cloud of small flies which the muck generates, and the same preventive measure to relieve them must be adopted there.

Another ailment is the "red-water," an internal disease, which is not apt to occur upon good, sweet pasture, but where wood land grows a coarse grass, of a benty nature, which gathers within the stomach without affording due nourishment. This would seem to lacerate the intestines and start the flow of smaller veins, or some such effect. Drinking at pools full of decayed branches and leaves, as the farmer is too apt to leave them, is another cause, by possible astringency of the fluids, to bring on this disease. It is well to rake out the contents of such drinking places every year, and to pitch in a few baskets of lime to sweeten them and kill the noxious insects and animalcules, which may otherwise go down the throats of the drinking beasts. Swelled joints are brought on through cattle getting heated, especially if driven by the fly, and then going to lie down in cool places, and oftentimes on a damp surface within the wood. Rheumatism, when the seeds are laid, is a bad business, as we know too painfully from the experience of the human being. In this case an excellent remedy is the being whipped well on the bare skin with nettles. But it would puzzle even this spiteful weed to leave its mark on the cow's hairy hide.—*Colonus, in Live Stock Journal.*

When the sheep are shorn the ticks gather on the limbs, and these pests can best be destroyed by dipping. Tobacco makes the cheapest and best dip that can be used.

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.

Setting hens need nothing but corn and water; change of food while incubating is liable to derange the bowels, causing foul nest, and sometimes even loss of eggs.

An infusion of tobacco leaves or stems, sprinkled over rose or other bushes, will destroy the aphid or green fly, whose unchecked ravages are sometimes quite serious.

The chief reason why white grapes are not seen in market more frequently, is because they do not bear shipment well. They are thin-skinned, and the skin breaks easily.

Clover fields will be benefited by the application of a bushel or two of plaster per acre, or a load of wood ashes. There is no crop on the farm more important than clover.

In making butter, good, sound, wholesome food is indispensable. To make a good article from poor material is as impossible in dairying as in any manufacturing industry.

The bark of the pear tree is thinner than that of the apple, hence it suffers more severely from exposure of its trunk to the heat of the summer sun, and should be protected.

Mica Axle Grease is the best, because the powdered mica in it fills the axle's pores, making the surface smooth as glass. Mica is a non-conductor of heat, therefore Mica Grease keeps the axles cool. The mica in Mica Grease will in time form a polished coating over the axles and preserve them against wear.

When all other remedies fail then try Dr. King's New Discovery for Consumption. Trial Bottles free.

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.

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.

THE IMPORTED CLYDESDALE STALLION—"KNIGHT OF PARIS" (No. 985 Clydesdale stud book) will stand this season at the stable of the undersigned, three miles west of Topeka (Sixth St. road). He is one of the best Clydesdales in America. Sire Chiefstain; grandsire, the great show stallion Topsmar. To insure, \$25. H. W. McAFEE.

CATTLE.

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

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.

OAK WOOD HERD, C. S. Eichholtz, Wichita, Kas. Live Stock Auctioneer and breeder of Thoroughbred Short-horn Cattle, Poland-Chinas & Brnz Trkys.

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

CEDAR-CROFT HERD SHORT-HORNS.—E. C. Evans & Son, Prop'r's, 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 116 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 Sharoas 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. Malls, 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. Doie, 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, Potawatomi Co., Kas., breeder of Thoroughbred Short-horn Cattle, Cotswold Sheep, Poland-China and Berkshire Hogs. Young stock for sale.

SHEEP.

E. COPLAND & SON, DOUGLASS, KANSAS, Breeders of Improved American Merino Sheep. The flock is remarkable for size, constitution and length of staple. Bucks a specialty.

C. F. HARDIOK & SON, Louisville, Kansas, breeders of REGISTERED AMERICAN MERINO SHEEP, Having good constitution and an even fleece of fine, dense wool. Fine wool a specialty. Come and see our flocks or write us.

A. F. WILLMARTH & CO., Ellsworth, Kas., breeders of Registered Spanish Merino Sheep. "Woolly Head" 695 at head of flock. Choice rams for sale. Satisfaction guaranteed.

SWINE.

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., Importers, 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.

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

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.

F. M. LAIL, Marshall, Mo., breeder of Registered Poland-China Swine. Forty ready for sale. Plymouth Rock eggs, \$1.00 for 13.

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.

POULTRY.

ONE DOLLAR per thirteen for eggs from choice Plymouth Rock fowls or Pekin ducks. Plymouth Rock cockerels \$2 each. Mark S. Salisbury, Box 933, Kansas City, Mo.

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

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

W. M. WIGHTMAN, Ottawa, Kansas, breeder of high-class poultry—White and Brown Leghorns and Buff Cochins. Eggs, \$2.00 for thirteen.

EGGS FOR SALE—From Light Brahmas, 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. McColm, Waveland, Shawnee Co., Kas.

J. M. ANDERSON, Salina, Kas. Bronze Turkeys, Plymouth Rocks, Pekin Ducks, Shepherd Puppies and Jersey Cows and Heifers. Write for prices.

FAIRVIEW POULTRY YARDS. Write postal for price list of fowls and eggs. Six varieties. Mrs. GEO. TAGGART, Parsons, Kansas. Lock box 754.

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.

MRS. T. W. BAGSDALE, Paris, Mo., breeder of Light Brahma Chickens and Bronze Turkeys—the best. Eggs, \$2.50 for 13.

GEO. H. HUGHES, North Topeka, Kas., 14 first prizes (Felch and Pierce, judges,) on W. F. B. Spanish, & P. Rocks. Eggs, \$3 for 13; 26 for \$5. Prepared shell, 100 lbs. \$3. 12 egg baskets, 90 cts. Poultry Monthly, \$1.

MISCELLANEOUS

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 Auctioneer. Sales made in all the States and Canada. Good reference. Have full sets of Herd Books. Compiles 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.

PROSPECT FARM.—H. W. McAfee, Topeka, Kas. For sale cheap 15 registered Short-horn bulls, 1 to 3 years old. Also, Clydesdale horses.

S. V. WALTON & SON,

Box 207, Wellington, Kansas,

—Breeders of—

IMPROVED POLAND-CHINA HOGS

Of the Highest Type.

All well pedigreed. Correspondence solicited

THE LINWOOD HERD

SHORT-HORN CATTLE



IMP. BARON VICTOR

W. A. HARRIS, Linwood, Kansas.

The herd is composed of VICTORIAS, VIOLETS, LAVENDERS BRAWTH BUDS, SECRETS, and others from the celebrated herd of A. Cruickshank, Sittlyton, Aberdeenshire, Scotland. GOLDEN DROPS, and URYS, descended from the renowned herd of S. Campbell Kinellar, Aberdeenshire, Scotland. Also YOUNG MARYS, YOUNG PHYLLISES, LADY ELIZABETHS, etc. Imp. BARON VICTOR 42824, bred by Cruickshank, and Imp. DOUBLE GLOSTER head the herd. Linwood, Leavenworth Co., Kas., is on the U. P. R. R., 27 miles west of Kansas City. Farm joins station. Catalogues on application. Inspection invited.

Correspondence.

Assessment and Taxation.

Kansas Farmer:

The assessment of property upon a satisfactory basis to every tax-payer is perhaps an impossibility, but a more just and equitable plan than the present miserable farce is certainly within the range of possibilities. There can be nothing more unfair than the way our assessments are made. Where comes in the cause of the present state of affairs?

It cannot be attached to the assessor, for matters have come to such a pass that that officer must either be recreant to the law or to his tax-payers, and when the average assessor puts the law on one side of the balance and his people on the other, the result is the law goes up so high that it never comes within range of his vision again during his official career. Then, his successor has been taught that the best assessor is he that returns the least property, and thus we go on from bad to worse. Hundreds of townships in the State will return but little more personal property this year than they did six or seven years ago, when they should have four times as much. No one doubts the advantage of an assessment upon a full cash basis, but an assessor who would attempt to make such an assessment would be denominated as "looney" and an emissary of his satanic majesty, Jay Gould. In many counties a basis is fixed that work horses shall average \$25 per head. Under such a basis the head of a family may own eight head of horses which are worth at actual cash value on an average \$125 per head, or \$1,000 in the aggregate; yet, on the \$25 per head basis, his assessment just comes up to the constitutional exemption and he pays no taxes upon his \$1,000 worth of chattels. Now, his neighbor has only two horses but he has bought an eighty of railroad land which he is in debt for and has it covered with a mortgage so deep that if it were in any other State save Kansas the crops wouldn't grow, and his horses mortgaged perhaps to pay last year's interest. His eighty is likely worth no more than his neighbor's eight head of horses, while he, the landholder, has to pay the taxes upon his eighty which should in all honesty be divided evenly between himself and the horse owner. Now, the records fail to show that it takes any more government to control a land owner than a personal property holder, and everything goes to show that the non-landholder is just as prolific in adding to the census as the real estate man, consequently he derives just as much benefit from the school that the taxpayer keeps up.

The above is just one instance. The present basis is full of such comparisons the whole way down. But now to remedy the evil? Should we have more law? No, there is nine times more law now than any assessor ever pays any attention to. If between this time and the time for making the next basis, the assessors or representatives from each county of the entire State elected from the boards of assessor could be assembled (by proclamation from the Governor if no other way) together with the board of railroad assessors and agree upon a basis for the entire State, which should be accepted by the representatives of the various counties as the basis to be adopted by them at their legal time of making basis in March, the matter would come nearer to a satisfactory solution than in any other way. The above method is particularly practical at this time on account of the fact that the present assessors do the assessing next year, and particularly desirable because real estate is to be assessed next year.

JAMES MONTGOMERY.

Frankfort, Kansas.

Silk and Wool.

Kansas Farmer:

Inclosed find a sample of home-made silk. This is a part of the border of a shawl. I believe it was woven in 1834 or 1837. The worms were fed on *Morus Multicaulis* in Mercer county, Kentucky, and this was hemmed three years before the invention of Sewing machines.

This is my first year in Kansas, Leavenworth county, and it has been unfavorable. We moved in March from Jackson county, Missouri, where we have resided since July, 1849, and that year I told my husband I

thought it a good idea to cultivate silk worms. He thought it too cold. We used to let the Millers lay their eggs on pasteboard, and place the eggs in a box, and keep in the ice house until April, and when the worms hatched out fed on lettuce until the Mulberry leaves get large enough.

Success to your valuable paper. There is no chewing, drinking or smoking in our home, or rather what I hope to make my future home; but I guarantee I have seen folks top heavy on tangle foot oftener in three months time than I ever did in Missouri in fifteen years' time. So much for prohibition. There must be a general turn out of snake bitten people.

I have over two hundred spring chickens and twenty turkeys. I mix sulphur in their meal occasionally, and I believe that keeps off cholera and other diseases.

The wheat sowed on this farm has turned out cheat. C. S. McBRIDE.

Tonganoxie, Kansas.

P. S.—Inclosed find one strand of South-down worsted. You will perceive it is three-double, and to those who never saw home-made work it is a curiosity. I took the premium on mits in Jackson county, Missouri, in 1853, of the same worsted. C. S. M.

Handling Cattle.

Kansas Farmer:

In looking over my last letter I realize how much the omission of one word changed the sense of a piece; but with your remarks and what I had written, it will probably lead all those that are interested to look up the law, and that was about all I cared for. On my way home I went out to the farm of Ball & Sons, Abilene. They have been feeding fat cattle four or five years, and have succeeded in learning something, if nothing more. They first commenced to feed ear corn, broken, then they tried shelled corn which they liked better. The last two years they have ground the corn, and think it still better and more profitable than in the ear or shelled.

There is no guess work, a pair of scales near by and cattle weighed twice a month is the guide they go by. Some of their steers in the coldest of weather last winter did not gain a pound. They have a grove on the northwest and high fence and long sheds, but they want something better they think than sheds in cold weather. They bought a horse-power first to grind with; but as it took from four to six horses and two men to keep them agoing, they had a 20-foot wind mill put up last winter, and with one hand to tend, now grind from 25 to 40 bushels an hour in a good wind.

All their stock is watered from one well, which they like better than the creek or pond. Two years ago they built a reservoir that holds 200 barrels, and from there the water is carried in pipes to their water trough, so the water is the same temperature all the time.

The corral is made of three boards and five wires with four posts to the rod, which make a good fence that nothing ever gets over or through.

E. W. BROWN.

Saving Wheels--Killing Hedge.

Kansas Farmer:

In August, 1881, I bought an old wagon on which the tire was very loose. I had to drive wedges (made of pine shingles) under the tires of the front wheels about one-fourth way around to keep them on. I then had a trough made of sheet iron about three feet long, four inches wide and four inches deep, costing 40 cents. I then got 1½ gallons of lin seed oil, then propped up one wheel and set the trough under it; filled it with oil and made a fire under it, and let it boil about 20 minutes, then turned the wheel clear around and boiled the next space and repeated the process until I got around each wheel.

Now for the result. The front wheels run two and a half years, when the wedges came out; I took them to a blacksmith and had the tires set, and the oil run down over the wood work. I told the blacksmith how I had treated them, and he made this remark: "Ah! been cheating the blacksmith, have you?"

The hind wheels are good yet, and in all this time, nearly four years, the wagon has never been under a shed.

CUTTING HEDGE.—The 15th of last August I commenced to cut a piece of old

hedge from two to eight inches in diameter. I cut some each week till the 26th of September. What I cut the first week put up a few very feeble sprouts, but they had not vitality enough to stand the winter.

This spring there is not a sprout to be seen except what I cut the last week, and they are sprouting quite freely.

J. B. DOBBS.

Antelope, Kas.

Advertiser vs. Subscriber.

Kansas Farmer:

IN an article headed "Inconsistency of an Editor" in KANSAS FARMER, June 17th, the article claims that Mr. Hughes, like many others, thinks that the paper should be run for the interests of the advertiser and not for the subscriber. I must state that I am at a loss to know where the editor obtained his information. I deny ever entertaining such false and selfish ideas. The paper, I think, should be published for all, and I am glad it is so published. I pay for an advertisement in the KANSAS FARMER, advertising W. F. B. Spanish eggs. Suppose Mrs. Moore had purchased two settings of eggs and hatched thirteen chicks marked with white and black down, which is the case with good stock. What would she have done with me for not sending eggs that would have hatched the standard metallic-plumaged bird?

Would it have been just to write me up under a heading of "Fraud in the Egg Trade?"

I am glad to see Mr. McColm's friends coming to the front in such noble style and defending him.

As to Mr. H. going to the office and paying for an advertisement, I will state that—

[The FARMER did not state that Mr. Hughes came to this office and paid for an advertisement, and therefore what Mr. Hughes says on that subject is stricken out of his letter.—ED. K. F.]

If the editor of KANSAS FARMER should receive a complaint from some of the customers I have sold eggs to, claiming that the eggs hatched four-legged, cross-eyed, scorched-feathered, bow-legged, or in fact anything but good, high-bred stock, please give me a chance to settle without so much trouble and hard feelings.

GEO. H. HUGHES.

North Topeka, Kas.

[REMARKS.—This letter is printed, not as a matter of right, but simply to show that the KANSAS FARMER is disposed to be fair even to people who, without cause, meddle with its business. Mr. Hughes has not been unkindly spoken of in these columns, so far as we remember, and when he undertook, as an editor, to denounce the conduct of this paper, which he had a perfect right to do, that ought to have been enough. And now, that he has had two whacks at the FARMER, he is probably satisfied; and if he is in good humor, we will submit for his private consideration the ease and grace with which the two gentlemen named by Mrs. Moore answered her complaint, and there is not a word in either of the letters published in their behalf showing "so much trouble and hard feeling." It is always better for people to take a little time to think and to be reasonable before they take on a load of trouble and hard feeling.—ED. K. F.]

Topeka Stock Yards Sales.

The representative sales of live stock at the Topeka stock yards for the week ending Saturday, June 20, are as follows:

Thirty-three fat hogs weighing from 118 to 345 pounds from \$3 to \$3.30 with a prevailing price of \$3.15. Milch cows from \$32.50 to \$35; 17 two-year-old heifers from \$20 to \$25; 27 stockers ranging from \$20 to \$25; 13 calves weighing less than 200 pounds sold from 5 to 6 cents. Yearling steers had quite a wide range, selling from \$11 to \$20; 12 two-year-olds sold at \$25; 12 three-year-olds sold for \$40; 27 fat ones and two-year-old steers weighing from 910 to 960 pounds sold from \$4.10 to \$4.75; 36 fat cows weighing from 900 to 1,340 pounds sold at the extreme prices of \$3 to \$4.35, the prevailing prices were \$3.15 to \$3.25.

There is no market whatever for half fat or grass cattle. Grass fed cows are fully 50 cents lower than last week. The present supply is ahead of the demand. Yearling Texas ponies sold for \$15; older Texas ponies sold from \$20 to \$37; work horses sold from \$105 to \$125.

Gossip About Stock.

L. A. Knapp, of Dover, Shawnee county, called at this office and reported his herd of Short-horns as doing well. His herd numbers 30 head. Note his ad. and write him.

The recent combination sale of grade and pure bred cattle at Wichita did not realize much for their owners, not being very desirable cattle. An imported Holstein bull brought only \$120.00.

At Riverview Park, Kansas City, July 7 and 8, Col. Richardson, of Roanoke, Mo., sells a draft from his famous herd. Also at the same time the Messrs. Brown will close out their entire herds.

Everybody in Northern Kansas interested in the improvement of cattle should make it a point to be present, July 1, at the extensive sale advertised by Dr. Robt. Patton, Hamlin, Kas. 140 Short-horns may be purchased on that day.

An extensive sale of well bred Short-horns are advertised this week by Hon. A. H. Lackey, Peabody, Kas. 75 head will be sold. The offering is mainly cows and heifers bred to noted bulls. The herd has been bred for both beef and milk.

From the transfer of thoroughbred Devon cattle in the American Devon Record we note that W. A. Travis, of Topeka, has secured the bull Senator Ross 3208. The FARMER would like to secure a list of all pure bred Devon herds in this state.

One of the strange things that sometimes happens in nature was reported to us the other day by Dr. D. B. Berry, of Strong City, Kansas. One of his best high grade Short-horn cows had twin calves some months since, one of them being a genuine Hereford and the other a jet black hornless Galloway. This is miscegenation in reality. All the beef breeds are represented.—*Dairy World.*

Rumors are prevalent here that exciting times among cattle men in southwestern Kansas may be expected at almost any time, as large herds of Texas cattle are moving northward by way of Lakin. The Governor has received a number of telegrams saying that men and money were needed at once to prevent the migration of Texas cattle. The Live Stock Sanitary Commission are on the ground.

The export of domestic animals shows some improvement over that of last year. The Chief of the Bureau of Statistics reports that the total value of exports from the United States of domestic cattle, hogs, beef, pork and dairy product during the month of May, 1885, and during the five months ended May 31, 1885, also of beef and pork products during the seven months ended May 31, 1885, as compared with similar reports during the corresponding periods of the preceding year, were as follows: May, 1885, \$7,262,552; May, 1884, \$7,541,945; five months ended May 31, 1885, \$40,172,549; five months ended May 31, 1884, \$34,464,276; beef and pork products, seven months ended May 31, 1885, \$54,297,685; beef and pork products, seven months ended May 31, 1884, \$50,267,382.

On account of the various outbreaks of hog cholera among many herds in the western states, the Commissioner of Agriculture has appointed Dr. J. Gerth, a veterinarian of New Jersey, who has had much experience with the diseases of swine, to proceed first to Nebraska and make a thorough examination of infected swine. The most recent statistics place the number of swine in the United States at over 45,000,000 head, which are valued at more than \$226,000,000. The annual loss among these animals is very heavy. In 1873 it was estimated to reach \$20,000,000; in 1882 it was 6 per cent. of the whole number in the country; in 1884 this loss increased to 9 per cent. Recent investigations indicate that these losses are the result of contagious disease. The losses in Nebraska during the last year have been, for the first time, very heavy. Reports from forty-six of the seventy-three counties show that out of 1,303,695 head of swine 460,463 were affected with the disease, and 352,921, valued at \$2,445,778, died.

Mann Boudoir Cars.

The Wabash is now running the celebrated Mann Boudoir cars between Kansas City and Chicago. This is the only line running these cars in the West.

Light Dawning on the Railway.

The United States Senate, last winter, appointed a committee of its members to investigate the general subject of inter-state commerce, and particularly as it concerns transportation by railways. The committee is now taking testimony in different parts of the country. A large part of the testimony is, in the nature of things, opinionated—that is, it must be merely opinion and not demonstrated fact. Figures of weight, distance, expense, etc., are readily obtainable; but what is needed, after the figures are read and studied, is a wise adjustment of differences, a comprehensive and an equitable settlement of an enormous business which is full of conflicting interests, upon a basis of common fairness and so as to do the least injury to any and the most good to all.

It is a very hopeful sign that railroad men themselves are beginning to see as some other men saw before them, that they and the railroad interests of the country are as much interested in governmental control of the railway system of the country as are the people at large. A considerable number of prominent and capable railroad men, as managers, presidents, commissioners, etc., have already appeared before the committee and testified as to their belief concerning the final and permanent solution of the railway problem. Not one of them, so far as we have seen, opposes the governmental policy, and several of them speak plainly in favor of it, giving reasons on their side similar to those which have been many times urged by persons who, because of their advanced views, were held to be enemies of railroads. These gentlemen say that the railway system of the country ought to be controlled by the government under a system which would be general and just. They see that it is not safe to trust to the cupidity as well as enterprise of men in railroad building and operating any more than in any other business; and these sensible men see that unless the government steps in and assumes general, though limited control, railway business will be very uncertain, and there will be always more or less irritation and conflict. In short, it is now seen and recognized by railroad men that if they would make their business satisfactory and safe, and if they would be protected against internal as well as external enemies, if they would be saved from the evils of unlimited and ruinous competition they must pass under the yoke as all other public matters do. A dispatch, lying before us as we write, containing a statement that Mr. Ackerman and Mr. Cook, of Illinois, both railroad men of prominence testified before the committee a few days ago, and the report says both the gentlemen favored a government railroad commission with the power to settle disputes between railways and shippers, but who should not, however, be a court of last resort. Mr. Cook thought the present depression among railways was due to over production, and that dividend paying roads were seriously hampered by the bankrupt lines pursuing the practice of allowing rebates and constantly demoralizing rates. While the committee sat in New York and Philadelphia, the same kind of testimony came from the same class of men.

The KANSAS FARMER has been urging upon the attention of railroad managers several years the very arguments which these gentlemen have presented to the Senate committee. And we did it on the principle that protection to the people is a protection to the roads. The people want only fair, honest, equal and common treatment at the hands of

railroads; but as long as there are a hundred or a thousand different railway lines in the country and every one doing its business in its own way, somebody must be crushed in the inevitable friction to follow, and that somebody is either a shipper, a passenger or a stockholder, or possibly all of them in one.

Railroading is a necessary and therefore legitimate business, and it is too expensive to handle playfully or carelessly. It is as important to regular railroad business and interests as to those of the trading world in general that the railroad traffic of the country be brought under a general system of government, and as nearly as possible under one management. If the government establishes a system for the roads and their business, they will soon accommodate themselves to it, and new roads will be constructed with reference to the established system, and then the people will be saved from hurtful discriminations, and railway companies will be saved from destructive combinations and competition, and there will be no more pooling, for there will be no further need for it. Truly light is dawning on the railway.

Thoroughbred Stock Sales.

Holsteins are becoming quite popular in middle Tennessee. There are quite a number of good herds. The first annual sale by the Tennessee Holstein breeders was held at Nashville on June 15th; 34 head sold at prices ranging from \$50.00 to \$360.00, making an average of \$196.60.

A representative Short-horn sale made by Mrs. H. C. Meredith, of Indiana, last week, ten bulls sold at prices ranging from \$90.00 to \$350.00, making an average of \$152.50; 25 females sold from \$105.00 to \$245.00, an average of \$161.20; 35 Short-horns sold for \$5,555, an average of \$158.60. This was one of the best sales held in Indiana this season.

At the recent Kentucky Short-horn sales, the combination sale at Hutchinson, 15 bulls averaged \$77.33, and 44 females averaged \$149.43; 59 Short-horns made an average of \$130.84. Messrs. Thorne & Marshall sold 50 Short-horns at Paris for an average of \$87.50. Messrs. Hall & Clay sold at Paris 57 head at an average of \$116. 50 Short-horns were sold June 12 at Millersburg by Joseph Barton, making an average of \$146.00.

The recent sales of thoroughbred horses over the country, comprising colts and fillies makes an excellent showing for this class of horses. The sale of the lot of yearlings from "The Meadows" farm, the property of R. Rowett sold at St. Louis 17 head at an average of \$269.70; 6 head owned by P. Lorillard sold at New York, June 12, at an average of \$761.66; 24 colts and fillies the property of Chas. Reed, Gallatin, Tenn., sold at an average of \$380. The greatest sale of yearling thoroughbreds this season was the sale of colts and fillies by the famous Spendthrift (son of Imported Australian), the property of James R. Keene, of New York. The sale of 11 head sold at an average of \$1,934; three colts by Spendthrift sold for \$13,400, an average of \$4,466.66, and 7 fillies by Spendthrift sold for \$7,425, an average of \$1,060.71; the chesnut colt by Spendthrift, dam Doubt, sold for \$6,100 to James Rowe, of Coney Island, and the brown colt by Spendthrift, dam Alta Velta sold for \$5,100 to Capt. W. M. Connor, of New York. These were the two highest priced yearlings sold this season.

The statisticians of the United States Mint estimate that the total production of gold in the world during the 400 years ending 1882 was 10,394 tons, equal in value to \$7,211,797,860. During the same period the production of silver was 197,731 tons, of the value of \$8,807,318,975.

An 18-year-old boy was before a Kentucky court for carrying deadly weapons. The Judge consented to dismiss the case on condition that his mother openly cowhided him in court, which she did with a will, stripping him to the waist.

There is a bird roost at Lake Gentry, in Brevard county, Fla., covering a tract of eighty acres, in which, it is estimated, over 7,000,000 birds gather every season. It has been a resting place for birds from time immemorial.

To keep gloves clean—wash your hands.

A SINGULAR BOOK.

Sointillating with Sarcasm and Brilliant with Truth.

(New York Correspondence American Rural Home.)

Chap. I. "Has Malaria;" goes to Florida.

Chap. II. "Overworked;" goes to Europe.

Chap. III. "Has Rheumatism;" goes to

Emms.

Chap. IV. Has a row with his Doctor!

The above chapters, Mr. Editor, I find in a book recently published by an anonymous author. I have read a deal of sarcasm in my day but I never read anything equal to the sarcasm herein contained. I suspect the experience portrayed is a personal one; in short, the author intimates as much on page 31. Let me give you a synopsis:

"Malaria," as it states, is the cloak with which superficial physicians cover up a multitude of ill feelings which they do not understand, and do not much care to investigate. It is also a cover for such diseases as they cannot cure. When they advise their patient to travel or that he has overworked and needs rest and is probably suffering from malaria, it is a confession of ignorance or of inability. The patient goes abroad. The change is a tonic and for a time he feels better. Comes home. Fickle appetite, frequent headaches, severe colds, cramps, sleeplessness, irritability, tired feelings, and general unfitness for business are succeeded in due time by alarming attacks of rheumatism which fits about his body regardless of all human feelings.

It is muscular,—in his back. Articular,—in his joints. Inflammatory, my! how he fears it will fly to his heart! Now off he goes to the springs. The doctor sends him there, of course, to get well, at the same time he does not really want him to die on his hands!

That would hurt his business!

Better for a few days. Returns. After a while neuralgia transfixes him. He bloats; cannot breathe; has pneumonia; cannot walk; cannot sleep on his left side; is fretful; very nervous and irritable; is pale and flabby; has frequent chills and fevers; everything about him seems to go wrong; becomes suspicious; musters up strength and demands to know what is killing him!

"Great heaven!" he cries, "why have you kept me so long in ignorance?"

"Because," said the doctor, "I read your fate five years ago. I thought best to keep you comfortable and ignorant of the facts." He dismisses his doctor, but too late! His fortune has all gone to fees.

But him, what becomes of him?

The other day a well-known Wall street banker said to me "it is really astonishing how general bright's disease is becoming. Two of my personal friends are now dying of it. But it is not incurable I am certain, for my nephew was recently cured when his physicians said recovery was impossible. The case seems to me to be a wonderful one." This gentleman formerly represented his government in a foreign country. He knows, appreciates and declares the value of that preparation, because his nephew, who is a son of Danish Vice-Consul Schmidt, was pronounced incurable when the remedy, Warner's safe cure, was begun. "Yes," said his father, "I was very skeptical, but since taking that remedy the boy is well."

I regret to note that ex-President Arthur is said to be a victim of this terrible disease. He ought to live but the probabilities are that since authorized remedies cannot cure him, his physicians will not advise him to save his life, as so many thousands have done, by the use of Warner's safe cure which Gen. Christiansen, at Drexel, Morgan & Co.'s, told me he regarded "as a wonderful remedy."

Well, I suspect the hero of the book cured himself by the same means. The internal evidence points very strongly to this conclusion.

I cannot close my notice of this book better than by quoting his advice to his readers: "If, my friend, you have such an experience as I have portrayed, do not put your trust in physicians to the exclusion of other remedial agencies. They have no monopoly over disease and I personally know that many of them are so very 'conscientious' that they would far prefer that their patients should go to Heaven direct from their powerless hands than that they should be saved to earth by the use of any 'unauthorized' means."

And that the author's condemnation is too true, how many thousands duped, and yet rescued, as he was, can personally testify?

The Chinese doctors prescribe reptiles for their patients. Our physicians have another way of making people see snakes.

T. E. Bowman, Topeka, makes loans on good farm securities, at moderate rate of interest and no commission. Correspondence solicited.

A Quincy (Ill.) debating society has decided that there is more pleasure in seeing a man thread a needle than in watching a woman's attempt to drive a nail.

We call attention to the card of H. C. Draper. Mr. Draper is located at Oswego, this State, and is prepared to fill orders for all sizes of tile. Write him for prices.

A French soldier had his face blown off with a shell during the Franco-Prussian war. The skull was left intact. A mask, including a false palate and set of teeth, was con-

structed for him, and is so perfect that the functions of respiration and mastication are almost as good as in their normal condition, and the voice has resumed its natural tone. False eyes fill up the cavities in the mask where the natural eyes are in the face. He is in perfect health, delights to talk of his soldier life, and sells a pamphlet describing it.

Book Notices.

FRANK LESLIE'S SUNDAY MAGAZINE—For July begins the eighteenth volume of this popular Magazine with an interesting descriptive article on "The Cathedral of the Incarnation," at Garden City, Long Island, with illustrations of the exterior and interior of the Cathedral, a View of St. Paul's School for Boys, the See House, and a Portrait of Bishop Littlejohn. Two more of the Parables of Christ are given—"The Great Supper" and "The Lost Sheep"—the latter with an illustration. Dr. Talmage's sermon is on the "Noontide of Life;" he contributes also a tender article on the late "Mrs. Samuel T. Spear;" and in the "Editorial Comments" he discusses the Threatened War in Asia, the Doctor, the Pedestal for the Statue of Liberty, and the Saturday Half-holiday—all timely topics. Indeed, the whole number has an unusually fresh and timely character. Among some of the more interesting miscellaneous articles are "The Sacred Ganges," with three illustrations; and "the Martyrs of the Bass," with two illustrations. The two serials, "Love's Harvest," by Farjeon, and "What She Made of Her Life," by Mrs. Farmer, progress interestingly, and there are numerous short articles and poems, and a number of fine engravings. Published by Mrs. FRANK LESLIE, 53, 55 and 57 Park Place, New York, at 25 cents a number, or \$2.50 a year, post-paid.

FIVE ACRES TOO MUCH.—Probably no work upon rural matters ever created so great a sensation as "Ten Acres Enough," published some twenty years ago. It set forth the pleasures and the profits to be derived from cultivating ten acres, telling a very fascinating story of a book-keeper who found health and a handsome income by growing small fruits, for which it was shown that "ten acres" were quite "enough." The work was a record of experience, in part actual, in part assumed, and by presenting a highly colored account of the profits of cultivating a few acres, induced many to undertake the life depicted. The success of the work induced several others to write on similar subjects, among them Mr. Roosevelt, who in "Five Acres Too Much" did much to tone down the influence of the then current style of literature on this subject, by showing the ridiculous mistake that may be made by city people who, without any previous experience, change their mode of life by moving into the country. This work gives the adventures of a city man who takes possession of his five acres. That the work has real merit is shown by its having lived long after the craze upon which it was intended as a satire, had passed away. It is a most thoroughly funny book; one that any person with a sense of the ludicrous can not fail to enjoy, even if he has no knowledge of the "Ten Acres Enough" excitement. The author, for the present edition, has prepared a new introduction, and has added a new chapter: "Three Hundred Acres not Enough." One must be sorely afflicted with the blues to whom a perusal of "Five Acres Too Much" will not bring many a hearty laugh. Price, post-paid, \$1.50. O. JUDD CO., 751 Broadway, New York.

Few things are more fascinating in their way than a study of the subterranean history of man, whether in caves or in mounds, whether it be to corroborate written history, or to take testimony that ante-dates all writing. President Bartlett, of Dartmouth, contributes an interesting article on this topic to the July number of the *North American Review*. From the men of unknown ages and their works underground, to men grappling with the latest questions of our own day and discussing the parceling out of the earth's surface, is a long step; but in the same number of the *Review* appears a conversation between David Dudley Field and Henry George, on land and taxation. Another urgent question, which may soon make a very serious issue, the extradition of dynamite criminals, is debated by President Angell, of Michigan University, George Ticknor Curtis, and Justice T. M. Cooley. Dorman B. Eaton, Chief of the Civil Service Commission, gives his views on the results of that reform. William Clarke shows the futile character of any scheme for British imperial federation, and Thomas W. Knox gives a brief but interesting sketch of the progress of European influence in Asia. The other articles are one by Gail Hamilton on Prohibition in practice, and one by Rev. Dr. C. H. Parkhurst on the decline of Christianity. These, with the batch of free-hand Comments, make up a number of unusual interest. If the allotted age of man were sufficient for a magazine, we might have to part here with an old friend, for the *Review* has just completed its seventieth year. But outwardly it renews its youth with a new cover, and inwardly it seems more vigorous than ever.

Church bells from a Baltimore foundry are in den and in England. Already China, West Africa, Nova Scotia, Newfoundland, the West Indies and parts of South America have drawn upon the same establishment for its silver-toned bells.

The Home Circle.

Woman's Rights.

The weary head to lull to rest,
To soothe and still the throbbing breast,
The aching heart, to cheer and calm,
And bathe the burning brow with balm.

The little child's least burden bear,
To clasp the dimpled hands in prayer,
To kiss the rosy lips good-night,
O! this is woman's blissful right.

At morn, the thrilling words to hear,
"I love you so, sweet mother dear!"
While round her neck her darlings cling,
How all her cruel wrongs take wing.

Her benison most sweet descends
On child and mother, home and friends,
Like dew and sun, and air, and light,
Works there unseen, her glorious right.

There, she must hard-fought battles win,
With mortal woe and mortal sin,
Through countless nights her bivouac keep,
Her tireless watch while others sleep.

With patient strength, she must pursue,
What others fail or fear to do;
Her feet walk in a thorny way,
To win some wandering heart astray.

In love's sweet Heaven, so near and far,
O'er one dear home, to shine a star,
In one child's world, to rule unseen,
O'er one man's heart, to reign a queen.

That heart to honor and obey,
Yet rule with love's resistless sway,
While queen and subject firm she stands
By him who wisely, well commands.

O woman! woman! loved and dear!
Be in thy home, a star to cheer,
Thy hand may brighten every gloom,
And care's wild desert wreath with bloom.

Seek not to win in bitter fight
What manhood yields as thy sweet right,
For in his direst pain will he
Give first, and best, and last to thee.

Along life's ocean, gleam as lights,
Woman's immortal, deathless rights;
Your radiant realms to her are given
In child and mother, home and Heaven!
— Lydia M. Millard, in *Good Housekeeping*.

Words to Mothers.

The early training of children has always seemed to me to be a most important duty; one which certainly claims the serious attention of every mother, first and foremost—a duty which, if faithfully and lovingly performed, soon becomes the holiest, happiest privilege which a mother can enjoy. Her children are so entirely a part and parcel of herself that she, and she only, is fitted and intended by nature to be the true and constant guide of their early years. Hers is the power, if she will only use it, to lead their first and tenderest thoughts and feelings into the right channels, to develop in them all that is good and true, to uproot any seeds of evil which her keen, watchful eyes should be the first to perceive springing up, and to strive hourly and daily, by her own wise conduct in the home, to set before them an example worthy of their imitation.

To do this (I know from experience) is no easy matter, because, in order to accomplish this noble purpose, a mother must first learn to guide and control her own conduct right, and this, generally speaking, is just the very hardest and most disagreeable task one has to perform. And yet it is a task from which we must not shrink, if we wish to do what is right by our children. It is of no use whatever for a mother to attempt teaching patience, gentleness and forbearance to her little ones if she herself loses temper upon every slight provocation. The children will very soon discover what a wide difference there is between what mother says and what she does, and by this means her influence over them will be almost powerless. Example will ever be found to carry more weight with it than precept, although both are necessary in the training of a child. Most certainly, then, the first step to be taken is to conquer ourselves; then, indeed, shall we be "greater than he that taketh a city." Having succeeded in doing this, we will find it much easier to lead and train our little ones in the right path. And do not, dear mothers, let us look upon this training as a sort of drudgery, which may, quite properly, be left for some one else to attend to. Why, on the contrary, it is the very noblest work we could have had assigned to us, and the work which God will expect us to do with the very best of our powers.

We must remember that our babies will not always be babies, nor our boys and girls always remain children. They are the future generation whom it is our high privilege to educate and train; the men and women, who, if they are spared to grow up, will some day have to take their places, and play their different parts in the great drama of life, and upon us as mothers—more than upon any one else—rests the great responsibility of fitting and preparing them for that time.

I never quite seemed to realize the great weight and importance of a mother's duties and responsibilities until I read Smiles' splendid work on "Character," a book which I wish every mother, both in England and America, would read. In it, the author sets forth very clearly the immense influence which a mother possesses over her child, al-

most from the very hour of its birth; an influence which must work either on the side of good or evil, and which is bound to effect the whole after-life of the child. Let me give just one short quotation: "It is," says Smiles, "because the mother, far more than the father, influences the action and conduct of the child, that her good example is of so much greater importance in the home. It is easy to understand how this should be so. The home is the woman's domain—her kingdom, where she exercises entire control. Her power over the little subjects she rules there is absolute. They look up to her for everything. She is the example and model constantly before their eyes, whom they unconsciously observe and imitate. Thus the mother again lives in her children." Think of this, mothers. If this is the case—which undoubtedly it is—can we begin too early with this good and careful training? I think not. I fear a very sad mistake is often made by permitting a child to do and say pretty much as he likes during the first four or five years of his life, and then trying to correct him afterward. I consider the right time for correction has arrived when the first little fault appears, no matter what age or size the child may be. As soon as he is old enough to act, or speak in an unbecoming manner, he is old enough to have the wrong of the thing pointed out to him. And who can do this so gently and tenderly as the mother? I do not advocate whipping or beating; that is just the very last remedy which I would have recourse to, but I do plead earnestly with all mothers to carefully watch their children, so that when tempted to commit some little fault, or it may be to tell an untruth, they may be corrected, and if need be, punished at once. Never allow a fault (however trifling it may appear) to pass unnoticed. They are the little seeds, which, if not uprooted, soon bring forth fruit abundantly. Take the little offender on your knee, apart from the others, and in simple, loving tones, show him the sin he has been guilty of, and teach him how to guard against it in the future. This is the course which I have always tried to follow myself, and I have never, even in one instance, had any reason to regret it.

A boy who to-day is greedy and selfish over his playthings, who loves receiving very much more than giving, and is allowed to go on his way unchecked, is more than likely—may, he is almost certain, to grow up into a sordid, mean-natured man, shunned and disliked by everybody; while, on the other hand, a boy who from earliest youth is taught and encouraged ever to consider the wants and wishes of others before gratifying his own, is equally sure to become one of those good, generous, large-hearted men who are worthy to rise in the world, and who are always beloved and respected by those with whom they come into contact.

What joy is there in life worthy to be compared to that felt by a mother when she sees her children growing up around her into good, true men and women, each one, it may be, filling some place of usefulness in the world, and to be sweetly conscious of the fact that in God's hands she has been the most powerful instrument in making them what they are?

Surely, mothers, this will amply repay us for any self-denial, or self-control we may have to exercise in the present. Let us make up our minds that with God's help we will do our utmost to train aright the dear ones whom He has given to us as a sacred charge; then, when we have passed away, and nothing remains of us save a memory, our children will rise up and call us blessed.—Aunt Chloe, London, Eng., in *Country Gentleman*.

Dish-washing machines are now in use in large restaurants. The machine is thus described: "It consists of a circular tank divided into two compartments, so as to form on one side a vessel of boiling hot water, and, on the other, one of running cold water. The machine is provided with eight supports or artificial hands for holding the dishes to be washed. These supports revolve around a central axis, and, through the intermedium of wheels, run over an undulating track. By this means the dirty dish, as it passes through the hot water, is given a motion that helps to remove the melted grease. The plate is finally thoroughly cleaned by the action of two brushes, between which it passes, and which rub it vigorously upon the top, bottom, and edges. After this it emerges from the hot water, and dips into cold water which is continuously renewed. Here it is given the same motions as in the hot water, and finally emerges and presents itself to the right hand of the operator, who has only to remove it and place it in a drainer, from whence it is taken by the wiper."

A new process of preserving or canning fruits is published. The San Francisco *Grocer* says of it: "The whole process of keeping fruit in bowls and other open top vessels is comprised in the simple covering of the vessel with unglazed cotton, such as is purchased in the stores rolled in blue paper. The following are the directions: Use crocks, stone butter-jars, or any other convenient dishes. Prepare and cook the food precisely as for canning in glass jars; fill your dishes with the fruit while it is yet hot, and immediately cover with cotton batting securely tied on. Remember that all putrefaction is caused by the invisible creatures in the air. Cooking the fruit destroys all these, and as they cannot pass through cotton batting, the fruit thus protected will keep for an indefinite period. It is said that berries, cherries, plums and many other kinds of fruit have been kept in this way for several years." It is suggested

by the *Prairie Farmer* that before placing the cotton, lay a clean paper of the proper size on the hot fruit, and put another paper on over the cotton, so as to keep it in place and keep out the dust, and tie it there.

Keeping the Boys at Home.

I have received several letters from parents thanking me for having enlisted the attention of their sons by the articles on the history of agriculture published in these columns. Now let those parents make their homes happy and retain the boys on their paternal acres. For the past forty or fifty years it has been a mania with quick-witted and enterprising country boys, to leave the farm and strike for fame and fortune in the city. It must be admitted that cities, with all their drawbacks, possess attractions of an almost irresistible character to a young man who has to depend on his own exertions to make his way in the world. They are the centers of trade and commerce; the arts and sciences are there cultivated as they cannot be in townships and villages. There the professions offer the best opportunities for eminence. A metropolitan reputation assures provincial fame, while the reverse is not true. A lawyer or a physician may have a lucrative practice in a township or village, and be a thorough master of his business, but the chances are that were he to remove to the city, he would have to fight the battle over, and take his chances with the neophyte in his profession. Fortunes, too, are more speedily amassed in cities than in provincial towns. Competence is not so easily reached in the city as in the village or townships, and the hard struggle to acquire it usually gives that discipline and force which enable a man who has passed the point of danger to acquire easily and rapidly.

These are some of the considerations that attract ambitious youths to the city. They see only the silver side of the shield. They hear of this man and that man who left his plain country home without capital, and in a few years fought his way up to fortune or fame in the city. Stories of these grand successes are winter tales told by many a country fireside to greedy ears, and the impression made is ineffaceable. It is rare, however, that the fate of the hundreds who leave the country, come to the city, and drag out a life of weary struggle and unsatisfied expectation, is traced. Those who live and make no mark, who die and make no sign, are swallowed up in the vast procession. The country lad sees only the head that, like Saul's, is above the multitude. With the boundless confidence in his yet untested powers which youth and health inspire, his imagination busy with plans all reaching on to a golden perspective, where wealth and honors await him, he turns disdainfully from the acres he has tilled under hot summer suns, the fields that have returned but a moderate though certain reward for his labor, and longs for nothing so much as to take his part in the busy life of the city, "its fluctuations and vast concerns."

It is a waste of words to reason with a lad who has fairly set his thoughts upon the city. He is as uncontrollable as that class of adventurers whose vision, eighteen or nineteen years ago, was dazzled with the mirage of Pactolus rolling over golden sands down the slope of the Pacific. Point out to him the innumerable instances of young men who have left independence with their father's acres, moved to the city, and fagged at the accountant's desk, or hopped about counters, yard-stick in hand, to the end of their days, dependent on their weekly and yearly stipend for their daily bread, and always from hand to mouth, and you will be assured that the hopeful youth never will be one of these. He will get employment, then by his attention to business, his economy, his moral deportment, so recommend himself to his employer that in a few years a partnership will follow, and with that stone-fronts, corner lots and all other imagined felicities that accompany wealth. Or he will set up for himself, drive a legitimate business, or speculate, and by some lucky strike of fortune enroll himself among the millionaires—the solid men who direct and control great enterprises, accumulate great fortunes, and dying, bequeath their hundreds of thousands to charitable institutions, impecunious colleges, and other unquenchable absorbers of superfluous wealth. Or he will study a profession—the law, or medicine—and though he may be briefless or patientless for a time, and have to starve for it, yet he will somehow or other, he cannot say exactly in what manner, but he is sure it will happen, get into a notable case, and make such a wonderful speech or perform such a marvelous cure, that people will run after him, and not he after the people.

Now all this is natural to youth, as sunshine is to morning or song to birds in springtime. It is not only natural but it is commendable. A lad who has not ambition to better his position in the world, who does not set his mark high, who is not charmed with the bubble of reputation and fame and fortune, who does not cast his future with all the gay hues of the kaleidoscope, and see visions of civic honors, stoutly fought for and won, will not be likely to make much of life, or attain eminence in any art, science or profession. We that are older know when the gorgeous tints will sober down into gray realities, and the hard touchstone of experience dissolve the pleasing phantoms, as the fatal sword of Rinaldo touched and transformed the enchanting loveliness that hovered around the myrtle tree.

It is only by ennobling agriculture, by investing it with all the charms of scientific pursuits, by making it something more than an application of brain and muscle to the forces of nature, that it can be made attract-

ive to enterprising and ambitious boys. We may talk about the dignity of labor, and sing the praises of the farmer's life till the crack of doom, so long as we fail to enlist the head as well as the hand, the intellect as well as the muscle, we shall fail to counteract the attractions which the city presents to every wide-awake lad in the country.—Ben. Perley Poore, in *American Cultivator*.

Sociability.

Sociability is the best corrective of that serious and prolonged absorption in business or thought or cares which is so detrimental to many of our busy people. The rest taken in solitude, after working hours are over, permits the mind still to pursue one beaten track. The easy chair and blazing fire may be tempting to the weary toiler, but they do not force his thoughts into other channels or compel him to lay aside the train of ideas that has for long hours been working in his brain. Society, on the contrary, forbids such unwholesome indulgence. She insists upon a total change of mind and manner during her short reign. She calls for vivacity, variety, imagination—if possible, wit and humor, or at least a cheerful interest in that of others. She banishes the accustomed seriousness of mind, the brooding over familiar topics, even the earnestness of strong emotion. For a short time all these are forced to give way to the lighter play of fancy, the excitement of popular interests and the development of sympathy with others upon unfamiliar and varied subjects. Thus the mind is refreshed and invigorated, unused faculties are brought into exercise and the lost balance restored by a gentle compulsion that no one dares to resist.

A very pretty rug may be made by cutting any kind of cloth in strips about half an inch wide and perhaps six inches long. Tie these pieces on a stout string, or strip of strong cloth, in the following manner: Place the two ends of the strip together under the string you are tying them on; put both ends through the loop, and draw up; this holds them securely. Arrange the colors to suit your taste, then take an old coffee sack, cut in a circular form, bind around the edge, and sew on your strip of rags, beginning with the outer edge. Let each row lap just enough to cover the string of the preceding row. I think the result will be very satisfactory.

According to experiments made at an agricultural college in France, the yield of milk may be increased one-third by giving the cows water at a temperature of 66 degrees.

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The Young Folks.

Five Little Piggies.

Baby, baby, lend me your toes!
This is the way the story goes:
This little piggie to market went,
Across the dales and hills—wee, wee!
To buy some dinner she was bent,
And she was dressed in frills—wee, wee!

This little piggie stayed at home,
To sweep the kitchen clean—wee, wee!
She got a glass, her hair to comb;
Her apron was pea-green—wee, wee!

This little piggie he had some bread
And butter nice and new—wee, wee!
"I'd like to have some more," he said,
"With jam and honey, too—wee, wee!"

This little piggie he had none,
And tears ran down his nose—wee, wee!
Cried he: "For you this may be fun;
But who can tell my woes—wee, wee?"

This little piggie squealed: "Oh, my!
What will my mother bring—wee, wee!
Some pickle stew, and some radish pie,
And for my nose at ring—wee, wee!"
—May E. Cooper, in Good Cheer.

Four-Leaved Clovers.

The lane is long, and I've looked it over,
In vain I've searched for a four-leaf clover;
May is always sure to discover
Plenty without seeking.

Hearts are plenty, people say,
Still I've searched for one this many a day,
Why do hearts always come to May,
Even without her speaking?

Fate, the mistress oft defiled,
Denied me luck and lovers;
But smiled on May, her favorite child,
Crowned with four-leaved clovers.
—I. L. Jones, in Good Housekeeping.

Reviving a Dead Dog.

Mr. James L. Finch gives an account of some curious experiments which he and Dr. Armitage recently made secretly in resuscitating animals apparently dead.

The first subject operated upon was a medium-sized terrier dog. It was securely tied and an incision made in an artery in its neck, by which the animal was bled to death. He certainly passed through all the symptoms of dying, and soon after the last blood issued from the wound his frame became fixed and rigid and his eyes showed the senseless glare of death. The room was kept at a temperature of 70 deg. Fahrenheit, while the dog lay for three hours dead. By this time he had become very stiff and cold. He was now placed in a warm-water bath that was constantly maintained at a temperature of 105 deg., and was continually and thoroughly rubbed, and as he became pliant his limbs were gently work about and his whole body rendered supple. A half pint of hot water was now passed into his stomach through a hard-rubber tube which was forced down his esophagus. When this was accomplished the mouth of a rubber tube, attached to a bellows, was introduced into his windpipe, and, as the bellows were provided with a double valve, by which the air could be withdrawn as well as inhaled, the dog's nose was securely fastened.

A large and powerful Newfoundland dog had been obtained for the purpose, had been tied near by, and was now bled, while the attending surgeon proceeded to adjust the transfusing apparatus, and began slowly to inject the live dog's blood into the dead dog. Simultaneously Mr. Armitage began slowly working the respiratory bellows, while I kept rubbing the animal and bending his limbs and body to facilitate circulation. We could not have been more anxious about the issue of our efforts if they had been made upon a human being instead of a dumb brute. When a pint of blood had been injected, I could see some change about the eyes of the dog; but no one spoke. One thought was common to all—would life come back? In a few moments more there was certainly a convulsive tremor noticeable in body. Mr. Armitage, in undigested excitement, said to the surgeon: "Press the blood." In a minute or two the dog gasped, and soon attempted to eject the respiratory tube, which was accordingly withdrawn. This was followed by gasps and a catching of the breath, while the eyes grew brighter and more natural. The rubbing and blood injecting were yet applied, and the dog was struggling as if in a fit. But his efforts soon became less violent, and he began a low whine. A compress was now placed on the artery, and in twenty-two minutes after the first blood was injected he sat up, after being dead three hours and twenty minutes. The dog then drank broth that had been prepared for him in case of his revival, and soon got up and walked about. A comfortable bed was provided near the stove, and from this time forward his recovery was so rapid that in two days he was turned out to run in the streets. He is now a rugged character, in good health, with seemingly no remembrance of his resurrection.—Denver News.

A resident of Bergen county, N. J., is just recovering from what came near being a fatal attack of erysipelas, caused by wearing a pair of spectacles which hugged his nose so closely as to bruise it.

"LITTLE JOE."

The Death and Burial of the Best Newsboy in New York.

It was only a very small funeral yesterday that wended its way slowly from the King's county hospital to the Holy Cross cemetery at Flatbush. There were no handsome carriages, no long string of hacks, only the hearse containing a small plain coffin, followed by a solitary coach. But the mourners were just as sincere as at the largest and most imposing funeral. A hundred faces were wet with tears and a hundred hearts were touched by grief.

"It's only a newsboy," said a policeman. True, only a newsboy, a waif from the streets of the great city, but no philanthropist was ever kinder, no friend more true, no soldier braver than "Little Joe" Flannigan. Every newsboy about the offices of New York's great journals knew and loved him, and all owed him a debt of gratitude for the many good deeds he had done in his humble way.

"LITTLE JOE"

first appeared on the streets of New York two years ago. He was small and slight, with great brown eyes and pinched lips that always wore a smile. Where he came from nobody knew, and few cared. His parents, he said, were dead and he had no friends. It was a hard life. Up at 4 o'clock in the morning, after sleeping in a dry goods box or an alley, he worked steadily on till late at night. He was misused at first. The big boys stole his papers or crowded him out of a warm place at night, but he never complained. The tears would well up in his eyes, but were quickly brushed away and a new start bravely made. Such conduct won him friends, and after a little none dared play tricks on little Joe. His friends he remembered, and his enemies he forgave. Some days he had especially good luck. Kind-hearted people pitied the little fellow and bought papers whether they wanted them or not. But he was too generous to save money enough even for a night's lodging. Every boy who "got stuck" knew he was sure to get enough to buy a supper as long as Joe had a penny. But the hard work and exposure began to tell on his weak constitution. He kept growing thinner and thinner, till there was scarcely an ounce of flesh on his body. The skin of his face was drawn closer and closer, but

THE PLEASANT LOOK NEVER FADED AWAY.

He was uncomplaining to the last. Two weeks ago he awoke one morning, after working hard selling "extras," to find himself too weak to move. He tried his best to get upon his feet, but it was a vain attempt. The vital force was gone.

"Where is little Joe?" was the universal inquiry. Nobody had seen him since the previous night. Finally he was found in a secluded corner, and a good-natured hackman was persuaded to take him to the hospital in Flatbush, where he said he once lived. Every day one of the boys went to see him. On Saturday a newsboy who had abused him at first and learned to love him afterwards, found him sitting up in his cot, his little blue-veined hand stretched out upon the coverlet.

"I was afraid you wasn't coming, Jerry," he said with some difficulty, "and I wanted to see you once more so much. I guess it will be the last time, Jerry, for I feel awful weak to-day. Now, Jerry, when I die I want you to be good, for my sake; tell the boys—." But his message was never completed.

LITTLE JOE WAS DEAD.

His sleep was calm and beautiful. The trouble and anxiety on his wan face had disappeared, but the expression was still there; even in death he smiled. It was sad news that Jerry bore back to his friends that day. They feared the end was near, and were waiting for him with anxious hearts. When they saw the tear-stained face they knew that little Joe was dead. Not a word was said. They felt as if they were in the presence of death itself. Their hearts were too full to speak. That night a hundred boys met in front of the city hall. They felt that they must express their sense of loss in some way, but how they did not know. Finally, in accordance with the suggestion of one of the larger boys, they passed, a resolution, which read as follows:

THE RESOLUTION.

"Resolved, That we all liked Little Joe, who was the best newsboy in New York, and everybody is sorry he has died."

A collection was taken up to send delegates to the funeral, and the same hackman who bore little Joe to the hospital again kindly offered the use of his carriage. The burial took place yesterday. On the coffin was a plate purchased by the boys, whose whose language was expressive from its very simplicity. This was the inscription:

LITTLE JOE,
AGED 14.
The best Newsboy in New York. We all
liked him.

There were no services, but each boy sent a flower to be placed upon the coffin of his friend. After all, what did it matter that "Little Joe" was dead? He was only a newsboy. This is not a fancy sketch. Every word of the above story is true.

The bird spider of tropical America, according to a French writer, has a body as much as 4 1/4 inches long, or a diameter of seven inches with the legs extended, and is

the largest of the several hundred known species of spiders. Its nest resembled those of the large caterpillars of France, and consist of a beautiful white silken tissue, of several thick layers, and strengthened by very strong threads, capable of arresting a small bird. In the centre are placed the eggs, perhaps 1500 or 2000 in number. The creature is very powerful, and is provided with formidable instruments of attack, enabling it to destroy not only young birds and adult humming birds, but large lizards and reptiles.

Stories About Alligators.

[From the Pittsburg Dispatch.]

The crocodile of the river Ganges, in India; of the Nile, in Africa; the "Cayman" of the Amazon, in South America; the "Jacares" in the tropical possessions of Spain, and the alligator of North America, although different in name, all belong to one and the same order of reptiles, differing in certain physical peculiarities. They are carnivorous, in some cases very ferocious, and consequently dangerous to man. Owing to the peculiar arrangement of their teeth, they can only devour flesh far advanced in a state of decomposition. In India and Africa they attain a length of from twenty to thirty feet, the American species seldom growing more than sixteen feet long, the average length being about twelve feet. One of the physical peculiarities is their bullet-proof armor. The upper parts of their slimy bodies are covered with a tough, bony series of oblong plates joined together by thick, pliable skin. In the Asiatic species the plates form a long, bony serrated ridge down the middle of the back, extending to the end of the tail. The American reptile has two ridges on his back, merging into one at the root of the tail. With the expressive mouth gaping from "eye to eye," and switching his powerful tail as he gambols along the sandy shore, he is truly a most repulsive and formidable creature.

A few are met with in South Carolina, but as far south as New Orleans they lie torpid in the mud four months in the year, neither eating nor moving during this length of time. In spring the hot sun brings them out in full force. Below Jacksonville, Fla., on the St. Johns river, which rises several hundred miles south, amid the wilds of Lake Washington, the alligator is found in a climate exactly suited to his delicate constitution and habits. In these semi-tropical regions he never retires for the winter, like his Northern cotemporary, but swims sluggishly about the swamps and rivers seeking carrion, or sunning himself upon a dead log or moss-covered rock. South of the small city of Sanford the river extends 200 miles, not far from the Atlantic coast, and almost into the dismal everglades. It is in this network of swamps and bayous, filled with rank grass and tall cypress and bay trees, that alligator-hunting is pursued with profit. The Florida native, a "cracker," as he is called, selects a dark, quiet night, and entering his skiff, or "dug-out," places a small iron grate or cage securely in the bow. Next he fills the cage with dry pine knots or "light-wood," and deposits a plentiful supply in the bottom of the boat. Then, with a companion to row him, he loads his rifle carefully and seated in the bow of the boat right behind the jack-light, gives the order to push off. Involuntarily one is awed by the solemnity of the scene—the dark-brown waters of the sluggish and narrow river, hemmed in by swamp grass ten feet high, with here and there a tree standing out like a grim sentinel in the waste of sand and water. Occasionally they pass a tributary stream, and into one of these small creeks turn their boat, gliding silently along in the quiet night, with the moon rising slowly over the tall grass. Now all is changed. They dart into a dense growth of palm trees and scrub palmetto. The lofty cabbage palm rears its straight trunk aloft, smooth and even as a marble shaft, crowned above by a glorious foliage, while more humbly the many other trees indigenous to this warm climate stand with the funeral-looking Spanish moss hanging in filmy gray drapery almost to the water's edge, and the small patches of ground here and there visible, are covered with poisonous vines and lovely ferns. Here the "cracker" gives the order to cease rowing, and striking a match he lights up his cage of pine knots, illuminating the water many yards in advance. With his rifle cocked and in readiness they push silently ahead. Soon what appears to be the end of a log appears a few rods in front. The boat drifts slowly forward until the little sharp eyes of a "gator" shine forth from the log-like head. He is immovable, transfixed as it were by the bright glare, and now is the time to shoot. Aiming carefully, either at an eye or behind the fore leg, he pulls the trigger, the deed is done, the huge reptile awakens from his lethargy. A gurgling roar like that of a bull, a violent plunge and powerful lashings of the long tail, indicate he has received his death wound. After this flurry, which lasts perhaps half an hour, the body immediately sinks to the bottom. To prevent this he is secured by a rope and anchored safely.

When a sufficient number has been shot the "cracker" proceeds to skin his game. He takes a sharp knife, and making an incision on either side from behind the fore-leg removes the silver-gray skin from the belly and sides, the armored skin on the back and tail being useless. Then, securing the teeth, he returns home, and after salting the hides they are ready for the "commission man," who, after paying the hunter about \$2 per skin, packs them and ships them North, where they are carefully tanned and made into many useful articles. The hunters in Florida say this business pays them

poorly, the whole profit lying with the retail dealer in the North. Other means of capturing the alligator are resorted to, but shooting by a jack-light is the easiest and surest method.

I have heard many curious and interesting stories of alligators told by the lank, yellow "crackers," as we smoked about the camp fire in south Florida. One story I remember well. We were sitting in the "office" of a backwoods "hotel" in Orange county, when the conversation turned upon the peculiarities of the alligator. He (the man) was an old, dried-up fellow, with hair of a sickly yellow. Expecting thoughtfully into the fire, he said: "The 'gator dangerous? Well, he is, and again he isn't. I have seen boys swimming carelessly in a lake alive with the varmints, and when one would protrude his black shovel nose from the water the boys would shout, sing and splash, and he would wink his wicked little eyes and sink. A nigger? Well, they will tackle him if very hungry, and instances have been known when white men as well as niggers have been devoured. The people in my section are not afraid of them, and will bathe or wade in creeks where they are 'thick as hops.' I remember about two years ago, when traveling on business between Tangerine and Lake Enstis, I was passing through a piece of low hammock when I heard a grunting noise like that of a pig. Pushing the palmetto aside, I came upon the biggest 'gator I ever saw. He was at least eighteen feet long, and broad in proportion. He was lying on a strip of sand, moaning and bellowing as though in pain. Upon closer investigation I found he was very old and had crawled away from the water to die. Cutting a stout club I approached him cautiously, and struck him repeatedly on the nose and head until I killed him. I then sat upon his back and found that my feet would not touch the ground on either side, while some of his teeth were, by actual measurement, five inches long."

We swallowed this tale with commendable courtesy, and he continued: "The 'gator can live either on land or water, having a good pair of lungs and breathing a trifle more slowly than a human being. In the winter he is able to remain under an indefinite length of time, his nostrils closing automatically, like those of a seal, and perhaps you think his jaw works like the jaw of your mother-in-law, but it don't. Your m-in-l works the lower part of her face, but the 'gator's upper jaw is jointed, thus enabling him to seize his prey while resting his chin upon the surface. He is not to be feared on land, being unable to turn rapidly, but in the water he swims and dives with the rapidity of lightning. Are they numerous? Well, I should say so. Why, the St. John's river and Lake Apopka and Lake Okeechobee are alive with them, and almost every stream in Florida and many other Southern States has a large number of them. They breed in the summer months, laying from forty to fifty eggs in the hot sand. The mother then remains in the vicinity until the sun hatches them, upon which event the little fellows, about six inches long, make instinctively for the water, when many of them are eaten with much relish by the unnatural male 'gator, who, instead of feeling ashamed of himself, indulges in this diet with pride and great relish. The 'gator eats little or nothing in winter, but in summer is fond of decayed flesh of all kinds, as I said before. He is unable to tear or chew fresh meat, owing to the formation of his sharp, white teeth. forty in all, the upper ones lying exposed over the lower jaw and the lower teeth fitting into holes in the upper jaw. For this reason he carries his victim to his lonesome haunts and there waits patiently until decomposition sets in. To be sure they are not so plentiful as they were ten years ago, but the game laws are not likely to interfere in their behalf.

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A National Convention of nurserymen was held at Chicago last week.

At a mine explosion in England last week, one hundred and forty persons were killed.

General Grant was taken to Mount McGregor, near Saratoga, last week. He is about dead.

The government exhibit at New Orleans, required one hundred and thirty railroad cars to haul it away.

It is believed there is now not a case of pluro-pneumonia in Missouri. The Commissioner of Agriculture believes that way.

The fact that in a great many fields where wheat was sown last fall, chess is now growing, will open the discussion as to whether "wheat turns to chess."

There is nothing of importance to note in the wool market. It may be said, however, that indications point to a steady demand, though prices may continue low.

The Senate Inter-state Transportation Committee is holding sessions in the principal cities, hearing arguments and listening to testimony. The report will be a very interesting one.

Within the last ten days a good many iron establishments that have been idle a long time, resumed work. The differences between the owners and their workmen have been amicably and satisfactorily adjusted.

The Web Worm.

A correspondent of the KANSAS FARMER, writing from Labette county, (P. O. Parsons), told our readers last week something about the presence of a peculiar worm in that region which was doing a good deal of injury to the young corn. Since the receipt of that letter we have seen similar notices of the same kind of worm in many other parts of this State, and, also in other States, as Illinois, Kentucky, Tennessee, Missouri and Nebraska, and also in Indian Territory. No one is yet quite certain as to the name of the worm, and whether it is a new or old visitor, or whether it is a cut worm a little out of shape as well as out of habit.

By reason of its weaving a web about it to cover its nakedness while it works, farmers, by common consent, are calling it the Web Worm. It attacks weeds, and strong growing grass as well as corn. If the stalk, whatever it be, is strong and tough, the worm eats out only the soft and succulent parts, leaving the stringy, fibrous part, killing the plant as effectually as if it took all; but where the stalk is very tender and juicy, as a young stalk of corn, the entire substance is devoured as far as the work proceeds, cutting the stalk or blade off. The worms are very numerous, away beyond computation, one correspondent having counted one hundred and fifty on a single blade of corn.

The simultaneous appearance of this worm in so many different places in an area so vast may well create alarm, and especially in view of the fact that our season has been unusual in other respects and on the gloomy side at that. Wheat will not yield more than one-half the average, and by reason of the long, cold winter, and the continuously wet spring with low temperature, corn is not far advanced in any part of the country, many farmers, indeed, having been compelled to replant seed the third and fourth time.

By way of giving our readers the best information we have on the subject, we give a few extracts from some of our State exchanges.

The Coffeyville Journal (Montgomery county) says:

One farmer describes the advent of the pestiferous creature in this wise: A perfect cloud of small "millers" passed over this locality about three weeks ago. They deposited their eggs in the grass and weeds, and from these there was hatched millions of little green worms that immediately began to weave a web around everything in the shape of vegetation within their reach. It is generally conceded that it is what is known as the "web worm" that has put in for a chance to fix what remains of this year's corn and millet crops. Whole fields of corn and millet were destroyed in a night and day in some instances. But we are happy to say that the operations of the destroyers were not general. Some farms escaped entirely, and in some cases only certain fields were attacked. At this writing it appears as though the worm had about run its career, and no new points of attack are reported.

Howard (Elk county) Democrat says:

From many sections in the county comes the report of utter destruction to the corn by a small green worm, that builds a web over the corn and then eats the blades. A number of fields have been totally destroyed, and if the scourge is not stopped in some way the corn crop will be a failure.

The Parsons (Labette county) Eclipse says:

Our farmers are considerably scared over the appearance of the web worm in their corn fields, which seems to be a new visitant in these regions, we ourselves having never heard of him before.

The Columbus (Cherokee county) Courier says:

A worm, called by the farmers the web worm, from the peculiar feature of the insect in forming a web, is taking the corn sleek and clean in this

county, and everything else that is green. It is something after the shape of the "measuring" worm, and there are millions of them in every corn field in the county. From present prospects the corn crop is, or will be, a complete failure. We understand the insects do not bother the oat crop.

A correspondent of the Fort Scott Monitor says:

A late discovery has been made of an army of worms, taking all the vegetation before them. The eggs are deposited by a small yellowish miller, and hatch in a very few days. They are the color of green, with black stripes lengthwise on them. They are very small at first, but I have discovered a number an inch and a half in length, and the body in proportion to the length. I have seen as many as 150 on a blade of corn fifteen inches in length, and if they keep on in the way they have been they will destroy the corn crop in a few days. They have been raging for three days since the first discovery. The first discovery of the worm was by a web formed by them on the vegetation.

It is suggested by some farmers that this pest is an old customer, but has been in the habit of coming a little later in the season, or at least comparatively so, when the corn was too large for its taste. But speculation will not help the matter now. The only safe thing to do is to begin to replant in every field as soon as the worm is discovered and trust to luck for its death or change before the new shoots appear. Where the area visited is not large, insecticides might be used advantageously. Fresh lime scattered over them would loosen their hold, and kerosene or whale-oil soap emulsions sprayed over them would sicken them and destroy many. Where large fields are attacked, this could not be done profitably. But in small patches and in gardens it might pay. London purple and Paris green, also, are very good in such cases. Druggists can instruct as to methods of preparation. One gallon of kerosene mixed with five gallons of sweet milk makes a good emulsion. Water may be used in the absence of milk. Whale-oil soap dissolved is good also. Make of it a very strong liquid that may be sprayed readily.

Where corn rows are attacked, if they were plowed under and fresh seed planted, the experiment might prove to be useful. At all events, do not fail to have all your corn ground planted, if it is not all done before the middle of July. You will have good fodder, and some good corn, especially if seed of the early varieties is used.

At the Nurserymen's Convention in Chicago, last week, Hon. Norman J. Colman, Commissioner of Agriculture, said the outlook for crops generally is exceedingly good, with the exception of winter wheat, of which there would be but two-thirds of a crop. This deficiency would, however, nearly be made up by the production of spring wheat which, since the introduction of the roller process, makes as good, if not better, flour than that produced by the winter. He had every reason to believe there would be large crops of corn, oats and barley, and in fact all cereals.

The Missouri State Horticultural Society reports the fruit prospect of that State, June 1, as—Apples 66 per cent, plums 71 per cent, pears 65 per cent, cherries 64 per cent, grapes 51 per cent, raspberries 84 per cent, strawberries 93 per cent, and peaches almost a total failure except South of Springfield,

In the early part of last week there was a good deal of complaint about dry weather. In the region of Topeka there was light rain, Tuesday night, and our information is that a good deal of rain fell about the same time in other parts of the State.

Range and Ranch Cattle Business.

This office is in receipt of a recent report prepared by Joseph Nimmo, Jr., Chief of the Bureau of Statistics, in response to a resolution of the House of Representatives requesting the Secretary of the Treasury to transmit to the House such information as he may be able to communicate in regard to the range and ranch cattle traffic of the Western, Southwestern and Northwestern States and Territories, with special reference to the bearings of that traffic upon the internal and foreign commerce of the United States. The report is very full and brings together a great many interesting facts. A large portion of the work is made up of communications from different parts of the country on matters relating to the subject in hand, and it contains three maps showing the range region, the distribution of rainfall and population.

The cattle interest has grown up within a short period of time. Twenty-five years ago in the larger portion of Texas good three-year-old steers sold at \$3.50 to \$4.50 a head, and large numbers of native cattle were slaughtered for their hides and tallow. In these same regions now the same kind of cattle are sold at \$15 and \$18 a head. The building of railroads from Texas to St. Louis, and the planting of cattle ranches in the great West, revolutionized the cattle business of Texas. It is estimated 625,000 head of cattle were shipped from that State direct to market at St. Louis and other points, and almost half as many were driven north over the trail.

The western and northwestern cattle ranges are included in Indian Territory and the western part of Kansas, Nebraska and Dakota, the Territories of Montana, Idaho, Wyoming, Utah, Arizona, and New Mexico, the States of Colorado and Nevada, and portions of California, Oregon, and Washington Territory. The extent of this region measures considerable more than a million square miles. While cattle are scattered over nearly all of it, the best grazing region is The Plains, a tract about a thousand miles long by two hundred miles wide, extending north from Texas to Montana. The grass which grows on the plains is said to be very nutritious even in a dry state, and when dried on the stalk. Its peculiar value as a grazing plant was discovered by accident. A government trader in the late fall of 1864, was hauling supplies to Camp Douglas in Utah. He was overtaken in a heavy snow storm on the Laramie plains, and supposing he was in for the winter, he turned his oxen loose and he fixed up his camp. Expecting the cattle to starve or freeze, he was surprised to find them grazing on the spots from which the snow was blown. They did not wander off, but remained near his camp all winter, and when spring opened they were in better condition than when turned out the preceding November. This experience was noised abroad and a lot of Texas cattle were driven up into that country, and thus began the great cattle interest which now numbers 7,500,000 head valued at \$187,500,000. By way of showing the wonderful growth and expansion of the business, one instance is cited, that of the Wyoming Stock Growers' Association, which in 1873 had ten members representing 20,000 head of cattle worth \$350,000, and now reports a membership of 435 representing an ownership of two million cattle valued at \$100,000,000.

But there is a great deal more in the report than facts such as these here mentioned. It treats of rainfall, water-courses, climatic conditions, values of lands, character of soils and many other matters pertaining to the inquiry. The report may be had, until the edition is exhausted, on application to Chief of Bureau of Statistics, Washington, D. C.

The statue, "Liberty enlightening the world, arrived at New York last week, and the ship conveying it was received with great pomp and display. Guns were fired, flags displayed and people cheered.

It has been decided not to have a State Fair at Topeka this year. No particular reason is assigned by the directors of the association for this determination on their part. It being largely an individual matter with the directors, they feel at liberty to decline to get up a fair, if in their judgment the undertaking is one that will require more means than they are personally willing to guarantee.

Col. St. Clair, of Sumner county, was in Topeka last week. He spoke encouragingly of the situation in his vicinity. He reports corn doing well, though the web-worm has done some injury. The corn acreage is increased over that of last year about twenty-five per cent. Oats is good. Wheat is nearly a total failure. He says there is a good deal of chess in the fields sown to wheat last fall. Things are booming; immigrants coming in and real estate selling at advanced rates.

The *Western Plowman* says: "A curious discovery was recently made in the stomach of a horse belonging to London railway contractors. The animal died from inflammation of the bowels, and the stomach on being examined was found to contain a large quantity of stones, nails, tacks, danders, pieces of glass and zinc, several shells, etc., the weight of the whole being nearly two pounds. Too much care cannot be taken to keep such trash from the feed. Some horses are so careful that they will not eat such things, while other horses eat everything in the feed. Clean out the feed boxes and keep the feed clean."

The FARMER is in receipt of the catalogue of the State Agricultural College of Kansas for the year 1884-'85. There were four hundred and one students in attendance during the college year, of whom 363 are from 61 counties in Kansas, and 38 from 14 other states. Of the students, 281 were males, 120 females. This is the farmers' college, and it is gratifying to know that it is growing in strength and usefulness. The land occupied by the college comprises 171 acres, and the buildings erected thereon by authority of the State for use of the college are valued at \$100,000. The grounds are neatly laid off as shown in maps and diagrams in the catalogue, and ornamented by trees of many varieties, and flowers. Any Kansas farmer's boy that wants a good education at first cost, will find this institution, founded by the State, to be the place he ought to visit.

The day for fancy prices paid for Short-horn cattle is passed. The Canadian *Breeder*, in calling attention to the falling off in prices, recalls some interesting figures. "It was only a few years ago when, at the New York Mills sale, one cow realized \$40,000. Another of the same herd was taken to England for Lord Bective at about \$30,000. This was in 1873, but \$20,000 and \$25,000 respectively were paid for two heifers at Windermere six years ago. At the Dunmore sale, in 1875, \$22,500 was paid for a bull, and the same year in Toronto a Duchess heifer less than six months old brought \$18,000. In 1876, also in this city, a pair of Duchesses realized \$21,000 and \$23,000 respectively. In 1879, at Dunmore, two Duchesses were bought at about \$15,000 apiece by Sir Henry Allsopp, and their progeny came into the ring in good form at one of the recent sales to which we first alluded."

Oleomargarine Cannot be Prohibited by Law.

There are a good many Kansas people interested in the trade in imitations of butter; that is to say, they would be glad to have the manufacture and sale of such stuff prohibited. It will be remembered that our legislature at the last session considered a bill on the subject. This paper, in calling attention to it, took occasion to suggest that oleomargarine is not necessarily impure or unwholesome; that there is such a thing as pure, clean and healthful oleomargarine, and that imitations of it only are impure or unwholesome; and we suggested, further, that those facts being admitted, it is doubtful whether anything more could be legally done by the legislature than to require that it be not made or sold for anything different from what it is; that is to say, that its manufacture and sale as oleomargarine may not be prohibited, but that it shall not be represented falsely and called butter.

A case was decided in New York a few days ago on the subject. A law was in force in that state intended to prohibit the making of any substitute for butter out of anything but pure milk or cream. A good many persons were arrested under the law and convicted. The lower courts upheld the law. But one case was taken up and the highest and last court decided against it. The Court of Appeals held that there is no power anywhere to prevent the making and selling of any healthful and innocent article of food. That, it appears to our minds, is a correct principle of law. The objection to the manufacture of oleomargarine is not because of any unwholesome or dangerous properties in it, but because and only because of its coming in competition with butter. It is butter in the sense that it is made of elements similar to those of butter, and it is so much like butter in appearance, taste, and density, that most people are easily deceived by it and purchase it and use it in the belief that it is genuine butter.

We have heretofore said that our farmers and dairymen must meet this substance face to face, and demand that it be handled on its own merits and not on those of butter made from milk or cream. Let it go upon the market as oleomargarine, and not as butter; then every purchaser may have a choice; or, at least, he may know what he is buying.

Price Raid Claims.

It may be that some of our reader are interested in what are known as Price Raid Claims, and for their information we publish the following facts taken from the daily *Capital* of a recent date.

The Price Raid Auditing Committee met pursuant to the call of the Governor in the Secretary of State's office yesterday morning at 10 o'clock, all the members present. On motion the following resolution was adopted:

Resolved, That the Secretary of this Commission be directed to prepare a tabulated statement of all claims based upon scrip issued, giving first the number of claims; second, name of person to whom such claim was issued; third, present owner; fourth, service scrip; fifth, property lost; sixth, supplies furnished; seventh, transportation; eighth, damages.

On motion the Governor was requested to prepare and have published a notice to all persons holding Union Military Scrip or any claim growing out of the Price Raid, that they must send the same to the Auditing Board on or before the first day of October, 1885, and in pursuance of said motion the following was ordered published three times in the *Topeka Capital*, *Leavenworth Times*, *Atchison Champion*, *Lawrence Journal*, *Troy Chief*, *Fort Scott Monitor*, *Olathe Republican*, *Ottawa Republican*, *La Cygne Journal*, *Paola Republican*, *Osage City Free Press*, and *Wichita Eagle*. The notice is as follows:

Notice is hereby given that all persons having Union Military Scrip, or Scrip issued by any of the Commissioners appointed to audit claims growing

out of the Price Raid of 1864, should send the same to the Secretary of the Price Raid Auditing Commission, E. B. Allen, Topeka, Kansas, on or before the first day of October, 1885.

Inquiries Answered.

PRESERVING EGGS.—Will you please give in your next issue the process of preserving eggs by the use of a sulphur vapor? I understood it was published once in the FARMER but did not see it. There are several parties here who wish to see it and have looked for it without success. And oblige.

—The following, reprinted from our issue of May 6th, last, is what you refer to: "J. Hodson, a correspondent of the *Prairie Farmer*, gives a new process of preserving eggs. He says he got his idea by seeing sea captains burn charcoal and sulphur to disinfect ships, kill rats, etc., with carbonic acid and other gases, set free by combustion. Free carbon and sulphur fumes are death to living things, septic germs not excepted. Graphite and lampblack are carbon, and I chose lampblack for my experiment. Sulphur, with lampblack sufficient to hide it, were mixed together. I took a churn 20 inches square, having a circular hole in one side, and on the first day of February, 1883, placed in it 2 dozen fresh laid hen's eggs and 2 goose eggs, filled a saucer about two-thirds full of the sulphur and lampblack compound and placed it on the eggs; set on fire with a match (it burns slowly and without endangering anything); put on the churning cover, pasting a paper over it to keep in all the smoke, and left it over night. On opening the churn, I found about two-thirds of the compound consumed, and that combustion had ceased. I removed the eggs to an open paper box and set them in the store room. After four weeks they were examined, and found all right; the last of them were tested on the following 4th of July, and were as fresh as when laid. I broke one into a saucer and placed it in the sun, and it dried out perfectly sweet. Two of the eggs were placed under a hen, with other eggs. The fresh eggs hatched, but she could not spoil the two which had undergone the process; they came out as good as new. Use perfectly fresh eggs and a dry, air-tight box. I don't pretend to say how long they will keep, but do know the result of my own test."

BUCKWHEAT.—This grain may be grown from seed sown after harvest. Every farmer in Kansas this year ought to have a patch of buckwheat. Sow about three pecks of seed to the acre.

Farmers have a wide range of experience. Here in Kansas, we say our wheat was killed last winter by excessive cold. At some points along the Ohio river, where the ground was frozen for weeks continuously and to a great depth the wheat growing on it last fall is now better than that which was not so much frozen. A farmer there writes: "There are depressions on my bottom fields on which water and slush accumulated from three to six inches deep, and froze solid to the ground, which was frozen from 14 to 24 inches. From December to April the ground was so frozen that water could not soak away. Here then were extreme conditions of a kind which we have heretofore expected to destroy or damage our wheat. It is a strange fact that on these very depressions we have now the best promise for wheat. The plants are remarkably strong, and have that rich, dark green color, which indicates the highest vitality. The better drained and more elevated portions of the fields, show a lower vitality, have pale color, and the plants are small and the straw and heads must be very short. I attribute this to the strong, cold, dry winds which prevailed much of the time while the wheat was unprotected by snow. In Northern Ohio, where the snow covered the wheat all winter and until April, they escaped such injury."

Hon. Norman J. Colman, Commissioner of Agriculture, was elected President of the American Association of Nurserymen, Florists and Seedsmen, at Chicago last week.

Oak Grange, Shawnee county, Kas., will celebrate the coming Fourth day of July in a becoming manner at the Mission school house, near Topeka. Good speakers are promised, and an invitation is extended to everybody to attend and be duly prepared with patriotism and something to eat.

Hon. Harrison Kelley, of Coffey county, has been appointed by the Governor to fill the vacancy on the Live Stock Sanitary Commission occasioned by the resignation of Col. W. A. Harris, of Linwood.

A slaughter house and refrigerating establishment, costing over \$1,000,000, have been built at Medora, W. T., for supplying fresh meat to the East.

THE MARKETS.

By Telegraph, June 22, 1885.

STOCK MARKETS.

New York.

BEEVES—Receipts, including 47 car-loads for exportation, were 5,200 head making 11,870 for the week. Market dull and depressed. A number of car-loads remain unsold. Extreme native steers were \$5 35a5 30 per 100 lbs. live weight, with a car-load taken at \$6 45.

SHEEP—Receipts 1,180 head, making 42,580 for the week. Market dull and lower, with twenty car-loads to carry over. Sheep sold at \$2 90a4 40 per 100 lbs. and lambs \$4 00a4 60.

HOGS—Receipts, 12,400 head, making 33,460 for the week. Market a shade firmer for live hogs at \$4 00a4 75 per 100 lbs.

Chicago.

The *Drovers' Journal* reports: **CATTLE**—Receipts 7,800, shipments 8,000. Market active, 5a10c higher. Shipping steers 4 90a 5 90, stockers and feeders 3 50a4 75.

HOGS—Receipts 30,000, shipments 5,000. Market firm and close 1 stronger. Rough and mixed 3 80a4 05 packing and shipping 4 00a4 10, light weights 3 90a4 15.

SHEEP—Receipts 2,500, shipments 200. Market steady. Natives 2 50a4 25; Western 2 75a3 25½; Texans 2 25a3 60, lambs per head 2 25a3 75.

St. Louis.

The *Midland Journal* reports: **CATTLE**—Receipts 2,300, shipments 1,000. Market steady, with a demand for all good grades. Light and heavy shipping steers 4 80a5 65, good Colorado steers, 5 00a5 35, native butchers' steers, 4 40a4 85.

HOGS—Receipts 4,600, shipments 5,000. Market slow and weak. Yorkers 4 00a4 50, packing 3 65a 3 90, butchers' 4 00a4 15.

SHEEP—Receipts 700, shipments 400. Market very slow except for high grades, which are scarce. Good to choice heavy natives 3 25a4 15, common 2 00a2 50, Texans 1 75a3 00.

Kansas City.

CATTLE—Butchers steers, 4 70a4 75; shipping, 4 85a5 05.

HOG—Receipts since Saturday 10,277 head. Extreme range of sales 3 50a3 60.

SHEEP—Receipts since Saturday 252 head. Sales: 117 natives, av. 79 lbs. at 25.

PRODUCE MARKETS.

New York.

WHEAT—Market lower and closing steady. No. 2 red, 1 0.½.

CORN—Lower; closing stronger. Ungraded 53 a55½c.

St. Louis.

WHEAT—Unsettled. No. 2 red, cash 99a99½. **CORN**—Higher, but slow for options. No. 2 mixed, cash 43½a44½c.

OATS—Dull but firm. No. 2 mixed cash, 82½ a31. August 25.

RYE—Dull; 60 bid.

FLAXSEED—Quiet, 1 26.

Chicago.

WHEAT—Ruled moderately active but with a weak feeling and lower prices. Liverpool was reported firm, but the crop reports from the west and southwest were more favorable, and operators calculated upon an increase in the visible supply. Sales ranged: June, 8½a89; July, 89a 89½; August, 90a92½; September, 93a93½; No. 2 red, 94½; No. 3 red, 85a88½.

CORN—Quiet but firm. The receipts were large but a decrease in the visible supply was confidently expected. Cash 47½c; July, 46½a47c.

OATS—Quiet but steady. Cash 32½a32½c.

RYE—Dull No. 2, 74c.

BARLEY—Lifeless.

Kansas City.

Price Current reports: **WHEAT**—Daily elevator receipts 10,689 bus, withdrawals 3,433 bus, in store 667,371 bus. Wheat took another tumble to-day. June No. 2 red sold at 78½c, against 79½c bid Saturday.

CORN—Daily elevator receipts 15,859 bus, withdrawals 5,820 bus, in store 180,652 bus. The market continues dull and a further decline was had to-day. No. 2 cash, 36½c bid, 37c asked; June, 36½c bid, 37½c asked; July, 5,000 bus at 38c.

RYE—No. 2 cash, no bids 32½c asked.

OATS—No. 2 cash, no bids, 3½c asked.

BUTTER—Receipts are fair, but not sufficient for packers. We quote:

Creamery, fancy..... 16a00

Creamery, good..... 12½a13

Fine dairy, in single package lots..... 12½

Storepacked, in single packages..... 8a 10

EGGS—Receipts lighter and market steady at 9c per dozen, candled.

Shippers should now candle their eggs before shipment and save expressage on bad eggs.

CHEESE—We quote: Full cream, 11; flats partly skimmed, 6a7; Young America, 11.

FLAX SEED—We quote at 1 18a1 20 per bus. upon the basis of pure.

CASTOR BEANS—Quoted at 1 40a1 50 per bus.

OIL CAKE—Per 100 lbs., 1 30; per ton 25 00, free on board of cars.

BROOM CORN—We quote: Hurl 4a5c, self-working 3½a4c, common 1½a2c, crooked ¾a1½c.

BEE-SWAX—We quote at 20a23c.

Horticulture.

About Layering Grapevines.

The time for layering grapevines will soon be here. Indeed some vines are about ready now. If preparatory work has been well done, the ground is clean and in good condition, and the lateral branches of the cane to be buried are all growing to one side. Some weeks ago we reminded our readers that such canes as were intended for layers should be trained on the ground so that the laterals would all grow upward. If there has been nothing done by way of preparation, begin at once and operate two or three weeks. Select, to be buried, vigorous, bright, healthy canes, pinch off the end, and if it is not now running on the ground, put it down. If it is growing upwards, the change must be gradual, a little every day, until it is lowered. Let it lie (fasten it down if necessary) a week or two so that the branches and leaves will change to proper directions and positions. The leaves ought to have natural positions always, that is, the deep green or upper side to the sun.

If the preparatory work has been done, as soon as the vine begins to harden, and the laterals are long enough to handle easily and not be covered in the operation, layering may be done; but if all the preliminaries are to be done yet, wait until the vine is in pretty good shape for handling. Do not wait beyond July, however. We have raised good plants from August layers, but it is not safe to wait that long unless one is prepared to give the work extra attention.

When all is ready, dig a little trench as long as the cane that is to be buried, and about three inches deep. If the soil is not in very good condition make it so before digging the trench, by working and pulverizing. If it is clayey and disposed to be hard, dig it up well; that is, loosen it with a spade fork or a hoe, and mix in some fine, rich soil, or a little sand and some well rotted manure. Be careful that the manure is very rotten; it must be fine enough to mix thoroughly, like chip dirt or loam. In loosening the soil, go deep, but do not undertake to dig it up, for that would interfere injuriously with the roots of vines now growing. The fork may be sunk and then moved sidewise making openings in the ground into which the sand, loam, manure, etc., may be poured. After a good deal of this kind of work is done, the soil and manure may be further mixed by a kind of harrowing process with the fork or rake.

The trench should be level or nearly so, and the earth in and near to it ought to be very fine and rich. When it is prepared place the cane in it in the most easy and unstrained way possible and make it fast in the trench by means of a little stake with a shoulder or hook or fork on it. The stake may be five or six inches long below the fork, and light; a twig with a side branch cut for the fork, will do, or a bit of a shingle or lath cut with a shoulder. Point the end of the peg and when the vine is in position push the peg or stake into the ground beside the vine at the best place to hold it firmly, and so placed as that the shoulder or fork will rest on the cane to hold it in place. If the form of the vine is such that support is needed near the parent stem give it by means of earth piled so as to accommodate the cane and thus rest it along the trench. The best place for the stake is at the end of the trench nearest the main vine, but it ought not to rest immediately upon a lateral. Straighten out the cane, and if it does not behave well, fasten it in two or more places with pegs. Cut

off the end an inch beyond the last lateral to be saved, and cover the whole cane from the end cut back to and beyond the stake. Do the covering with the hands. Hold the cane steady with one hand while the other brings in the soil. Press it firmly down on the cane and closely about the branches. See that all the leaves are neatly drawn out and that they lie right side up on top of the ground. Do the work carefully, not slovenly. There ought to be at least three inches of soil above the cane, and it ought to be evenly placed and neatly compacted about the laterals. Mulching with hay or straw or sawdust is very good for layers, especially in a dry season. It does no harm in any season, for if the ground is not well drained it will not produce good vines. The mulching ought to extend out about two or three feet from the trench on either side. If the ground is dry when the layering is done, mulch well and give a good watering on the mulch.

The after work depends on the season and on the matter of mulching. If there is mulch used there will not be any additional work required except to destroy insects that may attack the leaves; but if there is no mulching, there must be an occasional working to keep the soil loose and to destroy weeds.

Nothing more is needed then until spring. When the time comes to raise the layers, first cut off the cane anywhere between the peg and the main vine, and then, with a sharp spade, or something of that kind, cut down about a foot on either side of the layered cane, low enough to cut off the roots of the layers all along, the whole length of the layered cane, and a foot beyond. When a cut has been thus made all along on both sides, then scrape away a little of the earth about the vines or loosen it a little with a stick, but be careful not to go deep enough to scrape or otherwise injure the roots. Then take hold of the cane where it is cut off, near the peg and lift slowly so as to raise the roots and not break them. At the same same time take hold of one or more of the stems to assist in the lifting process. Lift slowly and carefully, and when you find a root that was not cut off by the spade, cut it and thus save every root possible, but they need not be more than a foot long.

If the work was all well done and if the season was fair, it will be found that at every joint where a lateral branch had put out there will be a number of good roots; and by cutting the original cane apart between every two joints, you have a separate vine for every lateral branch growing out from the layered cane.

Upon raising the layers, cut them apart at once and cover them until they are needed for transplanting. Do not let them be exposed to air any longer than is necessary to do the work. The best way to cover them is to dig a hole and cover them with earth in that.

Horticultural Notes.

It is very important now that insects be watched and destroyed at every opportunity.

Worms and caterpillars usually are found on the under side of the leaf they are at work on.

Take particular note of the grape vines now with reference to preparations for next year's canes.

Young pear trees that are much exposed to the sun and wind will be benefited by a wrapping of paper.

Don't forget to shake the plum trees frequently, and see that the ground is free from weeds about them.

Grape clusters are in good condition of growth now for bagging if it is to be done. Little paper sacks can be bought very cheaply. Slip one over a bunch and tie the neck

lightly above. This is certain protection against future insect depredations.

An emulsion of one part of Kerosene and five parts of water sprayed on plants infested with insects will be found a great help.

Whenever you see that leaves are changing color, look for the cause. You will probably find a worm or a caterpillar or a moth in the neighborhood.

Lilac bushes are much prettier when grown and trained in tree shape than where they are allowed to grow at random in clumps like hazel bushes.

If you don't want strawberry runners to take the grounds, cut them off or cover the ground between the rows with mulching if that has not already been done.

Red Currants need shading lightly. If the bushes have that and are put on good ground, they bear well in Kansas. But look out for insects that cut them off.

Injurious Insects.

Essay by D. Doyle, read before the Kansas Horticultural Society, at Oswego, June —, 1885:

I was assigned the task of writing an article on insects injurious to the horticulturist. I will, therefore, confine myself to a few of the most troublesome.

PEACH BORER.

Among them is the peach borer. This borer is different from most others, as it has sixteen legs; three pairs jointed or true legs on the first three segments, four pairs of abdominal legs on the sixth to the ninth segments, and one pair on the last segment.

It is a naked, soft, white, round grub slightly flattened on the under side, and when full grown is about five-eighths of an inch long, its head is a shining yellowish-red color, marked in front with black, and at the base with white. When full grown it spins for itself a cocoon of silk wherein to pass the pupa state. This cocoon is of a brown color, oval in form, with the ends rounded, and is about three-fourths of an inch in length.

The perfect insect is very pretty; the male is the smaller of the two. The body is a bright steel blue, sometimes with a yellowish band on the abdomen, wings yellowish white with a narrow bordering of blue.

The female has a body of the same color, with an orange colored band about the middle of the abdomen.

The eggs are smooth, oval, of a dull yellow color. They are usually deposited upon the bark at the surface of the ground and the worms hatching from them work downward to the roots and frequently destroy the tree.

Many remedies are offered; such as planting tanzu around the tree; tying paper around the base, and banking up with earth in the spring and taking it away in the fall and killing worms (if there are any) and thereby save your tree.

The larva enters the pupa state in Southern Kansas in April and comes forth a perfect miller in May and June and are ready in a few days to deposit eggs for a new crop of borers.

LEAF CRUMPLERS.

The next greatest pest is the leaf crumpler. They are abundant enough in Kansas to merit attention. In going to an infested orchard in winter or spring, you will see on the twigs little black knots or masses, which, on examination, are found to contain little worms inclosed in little tubes and are fastened securely to the twigs. The worms are of a tawny color with dark brown heads. Those that remain on the trees all winter, as soon as spring opens will begin to eat the young leaves and about the middle of May or first of June they will transform to pupa, appearing as perfect insects in the latter part of June or first of July and in a few days begin their work of laying eggs for a new crop of worms. There has been but few remedies offered; the most potent is hand picking; nevertheless, I have gourds in my orchard for blue birds and wrens to build nests in and they destroy many of the worms and millers; therefore, I would recommend hand picking and the gourd.

CANKER WORM.

Next comes the Canker Worm, which is a native American species. The earliest account I have of it dates back to 1789, at which time it was very troublesome in Worcester county, Massachusetts. The insect, says Dr. Harris, like other widely spread noxious insects, the canker worm has had its season of increase and decrease. It was very abundant in Massachusetts seventy-

eight years ago; then becoming almost unknown for many years. They appear to have been numerous in the vicinity of Boston in 1840, and Dr. Harris says that from 1841 to 1847 they almost disappeared from that section, but they rapidly increased at the last mentioned date.

The moths are of a pale gray color; the male has wings but the female has none, therefore is easily caught. Her color is so much like the bark of the tree that they are hard to find by an impracticed eye. They are shaped something like a buckwheat grain, but larger. She comes out of the ground as soon as the frost is out, climbs the tree and there meets the male, and in about five days begins to deposit her eggs, of which they deposit about 100 on an average, and then die. The eggs are generally found under the loose bark and about the forks of the limbs, where they hatch and are ready for business by the time the buds start. The worms feed upon the young leaves and bloom of the apple tree; also the elm, and frequently destroy the entire foliage of the infested tree.

Remedy—Take cotton batting (such as your mothers used for batting quilts) open it out just as you would for a quilt; cut it in strips four inches wide and long enough to reach around your tree; put it around the trunk of the tree, say two feet from the ground, or below the limbs, tie a string around the lower edge, turn the top edge out and your trap is made.

All of which is respectfully submitted.

Quince trees are very profitable, as an acre will yield an average of at least one hundred bushels, and there are no off years with the fruit. There is always a ready market for it.

There is nothing better to protect small garden beds of strawberries from late spring frosts than covering with heavy paper, says Mr. Purdy. It would be impracticable for large field beds.

No less than 4536 relatives of English titled families are quartered on the public service, says the Philadelphia Press. The drafts on the treasury for the sisters and aunts of dukes amount to \$48,800,450; the brothers-in-law and nephews of marquises to \$41,529,950, and the cousins and others of earls to \$240,906,010 per annum; or a total sum, going to prove John Bright's assertion that "the aristocracy lives on patronage," of \$331,230,210.

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.

In one of his speeches in Congress in favor of cotton, John Randolph said, or is reported as having said, he would walk a mile to kick a sheep. But that was a long time ago. Good observers now believe that there is something in store for sheepmen that will prove the wisdom of having held their grip during the dull times. A great many sheep have been lost in Australia in the last year from drouth. The number is estimated at ten to twelve million head. The business of wool growing there has suffered as well as here. It seems to us that the true policy is to get into shape for making good wool cheap.

Keeping the head perfectly clean, says a writer in the Salem (Mass.) Gazette, is a great aid to health. A distinguished physician, who has spent much of his time at quarantine, said that a person whose head was thoroughly washed every day rarely ever took contagious diseases, but when the hair was allowed to become dirty and matted it was hardly possible to escape infection. Many persons find speedy relief for nervous headache by washing the head thoroughly in weak soda water. We have known cases almost wholly cured in ten minutes by this simple remedy. A friend finds it the greatest relief in case of "rose cold," the cold symptoms entirely leaving the eyes after one thorough washing of the hair. The head should be thoroughly dried afterward, and draughts of air should be avoided for a little while.

The Virginia (Nev.) Enterprise says: "It will be remembered that some months ago, in boring the artesian well at White Plains, out in the eastern part of this State, under the auspices of the Central Pacific Railroad Company, a large log, or several logs, of wood were bored through at the depth of 1,615 feet below the surface. This has been a subject for discussion by scientists ever since, and a few evenings ago, in San Francisco, Dr. Harkness made it the special subject of a very interesting lecture. Quite a large quantity of this wood was brought to the surface, and it was good, sound wood, in an almost perfect state of preservation, although its great depth and the character of the superincumbent strata showed that it was at least 1,000,000 years old. Microscopic examination shows that the ancient tree was similar to the present nut-pine."

In the Dairy.

Absorption of Odors by Milk.

Although it is not known by every dairyman that milk is an absorbent of odors, still the fact remains, as any one can ascertain for himself by placing some clean, fresh milk in a musty, bad smelling cellar, and let it remain there an hour or two. Water, also, absorbs surrounding odors, and the only reason why milk is more receptive in this respect is, that it contains butter, which is a powerful absorbent. Butter is soon spoiled by being put in improper, that is, unclean places where offensive odors come from mould, dampness or filth. The reason why milk does not become noticeably affected by impurities in the surrounding atmosphere as soon as butter is, that the butter is held in solution in the milk and there is so little of it there in proportion to bulk of milk.

The cause of this absorption is not as well understood as the fact itself, and perhaps it is not as important unless it be for the reason that if we do not know how the thing is done we can not know as well how to prevent it. A contemporary, the *National Live Stock Journal*, says, "stable odors, and others foreign to milk, find their way into it quite too often for the good of those who use it. Just how they get there is often a mystery to the producer. Such a mystery is unfortunate, because if one does not know how they get there he does not know how to avoid them." To this, it may be said that if the odors themselves are prevented or neutralized there is no need of worry about the milk being affected by them. It seems, however, that in some cases at least, there are some odors that it is practically impossible to get rid of, and hence we must endure them, and if there is no way to keep them out of the milk, why, we must be content with what cannot be avoided. An odor, as the fragrance of a flower, is a volatile substance diffusing itself through large space, and seems to be as subtle as the air itself. Indeed, some persons, argue that vegetable odors, as that issuing from newly mown hay, is so ethereal as to take nothing from the physical properties of the hay. Whether that theory is not too finely drawn, is not important now, for we know that while fragrance cannot be handled, it cannot be seen, it fills all open space near until it is exhausted or becomes so attenuated as to be imperceptible by the sense of smell. This ethereal nature which renders all impressible substances subject to its influences by absorption or affinity, would seem to show that the manner of its commingling with other substances is by contact, simply, the mere coming together. In that view of the matter, milk would become affected, fragrant, or tainted as the case may be, by the simple operation of a moving gas, as the atmosphere becomes colored by gases from an explosion of gunpowder, or the air in a room freighted with the odors of a disinfectant. A good illustration of the idea is the commingling of the muddy water of the Missouri with the clear waters of the Mississippi. And if this theory is correct, it is not a very difficult matter to keep milk reasonably clean by the exercise of reasonable caution.

But the journal before quoted has another theory of this absorbing process which is not so easily handled if it be true. It says:

Does the reader ask how stable odors do get into milk, if not absorbed by the milk after it is drawn? The answer is, they get in through the breath of the cow. Standing in a stable filled with foul air, a cow cannot avoid taking in at every breath the odors with which it

is loaded. Upon entering the lungs, they are forced at once into the circulation. The blood becomes charged with them, and the milk, which always serves as a means of unloading the blood of its impurities as well as its nutriment, also becomes loaded with the odors intensified, greatly to the disgust if those who use the milk. It is surprising to those who have never carefully noted the facts, how soon and how effectually, foreign odors, good or bad, are taken into milk in the air breathed by milk-giving cows. A few instances will illustrate. It is not long ago that an account appeared in the *Journal of Milk Spoiled* by being saturated with the odor of onions, from tethering a cow to the leeward of an onion patch. In the experience of the writer, twelve cows, in passing to and from their pasture, were subjected to the scent of a dead calf lying twenty rods from the lane through which they traveled. The exposure to the tainted air did not exceed one minute at each passage, and yet they inhaled infection enough to make their milk offensive, and to nearly spoil, for cheese making, the milk of eighty-five cows with which their milk was mixed. When the cause was discovered, the burial of the calf terminated the effect. In four different instances the writer has known of cheese being materially injured in cheese factories from the cows of one of the dairies inhaling air scented from deacon calves lying round the barn in a state of decay. The annual reports of the dairy associations have often contained similar cases. Foul air is one of the readiest modes of contaminating milk. It will injure milk sooner than bad food. What is taken into the stomach may be, and often is, to a large extent, neutralized by digestion, but infection taken into the lungs is at once, and without change, forced into the circulation. There is no surer way of befouling milk than by forcing cows to breathe the confined air of their stables, saturated with the fumes of their perspiration and excrement. The consequence of breathing such odors is so plain and certain that it seems strange that it should be permitted to the extent it is.

Whether breathing offensive odors conveys them to the milk, or whether their affecting the milk is not caused by a process not yet recognized—something analogous to what we call in human economy effects of imagination, cannot now be determined, nor is it really necessary, for in either case means of prevention would be the same—destroy or prevent the odors.

All this teaches a plain lesson in dairying: namely, that it is important to have the surroundings of cows as clean and pure as possible. Barns ought to be so well ventilated that there would be no unpleasant smell in or about them, and nothing of an unclean nature should be allowed on or near the premises for the cows to eat or breathe, or for the milk to absorb after it is drawn.

Food for Milk Production.

Bulletin No. 4 of Experiments in Milk Production, published by Prof. Henry of the Wisconsin Agricultural College, is devoted to the results of experiments to determine the value for milk production of foods rich in digestible protein, such as oil meal, cotton seed meal, malt sprouts and similar food substances usually regarded as especially valuable in promoting milk production, as compared with corn meal—clover hay furnishing the hay ration during the experiments. We have not space to follow the course of the experiment, the report of which is quite lengthy. The conclusions reached are the matters of greatest interest and value to our readers. They are that the value of these foods has been overrated and that bran, middlings, corn meal, etc., are as valuable when fed in connection with clover hay as the more expensive oil meal or cotton seed meal, though with a hay ration of poor quality these latter would possess a higher value than if fed with clover hay. He found that there was no advantage in increasing the amount of protein above a certain moderate amount equal to that of corn meal, and that any excess of this failed to show results in milk production, and so, for this purpose, was of no more value than the same amount of corn meal, which is much

cheaper. The results of these experiments seem to teach that the purchase of high priced cattle food is not a necessity for the dairyman. That the clover meadow, the corn field and the cheap offal of our flouring mills, or in place of the latter, oats ground with the corn, furnish all the feed necessary for successful feeding in the dairy.

Raising Calves.

I have been so uniformly successful for several years in raising calves by hand, that I wish to tell your readers how I manage. If any one thinks that farmers generally know so well how to raise calves that there is no need to write on the subject, an inspection of the calves in the neighborhood will soon convince him that he is in error.

I prefer to raise calves by hand, for while they will not be quite so fat and smooth as one that sucks the cow, they can be weaned from milk gradually and other food substituted, and there will be no loss of flesh, while the calf that sucks through the summer and is weaned in the fall, will be checked in its growth and be more difficult to winter than one reared by hand.

I think it best both for the calf and its mother that they should remain together for a day or two. Nature has provided in the colostrum (as the thick, yellow milk is termed), a purgative which is needed by the young calf. It is best when the calf is removed to put it out of sight and hearing of its mother. Exercise all patience in teaching the young calf to drink. It is best to allow it to go without milk for twenty-four hours, or until it is very hungry, as it is then usually easy to get it to drink. Always feed new milk for the first ten days, or until your calf gets a thrifty start. Then begin with a tablespoonful of oil meal (I prefer old-process meal), and prepare it by pouring boiling water over it—enough to make a kind of jelly, and mix this with the milk. I use half new and half skim-milk for a few days. Gradually increase the amount of oil meal until by the time the calf is six weeks old you give him a half pint at a feed twice a day. When your calf is four weeks old, begin to teach it to eat bran. Sprinkle a little in its trough after each meal, and it will soon begin to eat it. As soon as it will eat a pint at a feed, if the milk is needed for other purposes, you can keep the calf thrifty on about four quarts of milk a day, as with a half pint of oil meal you can add more than a quart of water.

Another point that must not be overlooked or neglected, is to see that the food is given at regular hours, and in regular quantities, and for this reason the same person ought always to attend to the feeding. I have a neighbor who raises a large number of calves each year, that are nearly always pot-bellied and unthrifty, and the reasons are easily understood. Sometimes he feeds them, and again the children or the hired girl; sometimes they get their supper at 5 o'clock, and again at 7, and breakfast one day at sunrise, and sometimes not until 9 o'clock. Good calves can never be made in this way.

Another cause of unthrifty calves is feeding several together in the same trough, and allowing the larger ones to get more than their share. Where several calves are raised together there should be a small stall, and a separate trough for each. A V trough, 18 inches long, made of boards eight inches wide is best, and it can be made in five minutes. It should be securely fastened, and I prefer to place it outside the shed, and let the calf reach it through a hole made for that purpose. By arranging in this way, each calf gets exactly what feed you give it, and if they are kept shut up a short time after eating, they will not be likely to suck each other's ears, which is a bad habit.

In raising spring calves, let them run on a grass lot after they are four weeks old, and they will soon get a large part of their living from the pasture, and in winter furnish a little sweet second crop hay, or bright corn fodder. Many farmers veal all their fall and winter calves, because they think that they cannot raise a thrifty calf at that season. For ten years past, I have bred part of my cows to come in in the fall, and I now prefer to raise a fall calf rather than one born in spring. My reasons for this are: First, that as winter is a season of comparative leisure, there is more time to care for calves than in the push of spring work, and if given warm quarters and good care, they can be kept thrifty, and growing through the winter. Second, a calf that goes to pasture at six months old

with a long grazing season before it, will be larger at a year old, and in much better condition for wintering, than the six months old calf.

It requires some care and trouble to raise a good calf by hand, but it will pay. If you have cows that give a large mess of milk, you can raise two calves on the milk of each cow, and yet make as much butter as though you had no calves, and these calves will make a large addition to the profit from the cows. A calf that is kept thrifty during the first year will be worth ten dollars more at three years old than one starved and stunted.—*Waldo F. Brown, in Country Gentleman.*



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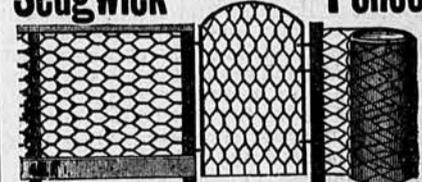
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The Poultry Yard.

Poultry Keeping on a Small Scale.

An English writer in the English *Live-Stock Journal* discusses this subject as it appears in that country, as follows:

The majority of poultry keepers in this country are those who have but limited space at their command, and the pursuit of whose hobby is a constant fight against difficulties of which the man of many acres knows nothing. If the agricultural returns published last year had included occupiers of less than a quarter of an acre, instead of excluding them, the numbers given in those returns would have been greater by many millions. The fact is that if the greater portion of householders desire to keep fowls at all, it must be upon a limited scale and in a limited space. Whether poultry can be kept under these conditions does not admit of discussion, for there are hundreds of thousands of fowls that have never seen and never will see grass growing, but live and die in small back yards and suburban gardens, apparently thriving very well there. When, therefore, anyone has at his disposal a place of moderate size, there is no reason why he should not keep a few fowls. In every household, no matter how small it may be and how careful the management, there are scraps from the table which cannot possibly be used, and if there are not some fowls or pigs at hand these must be wasted. They will in most instances provide a goodly portion of the food consumed by the poultry, especially if there are children. Therefore, as a matter of economy the keeping of a few fowls is a wise addition to the domestic circle. Scraps are better used in this way than flung into the ash-pit, there to decompose and then pollute the atmosphere all around—a fruitful cause of disease.

Most things are very simple when you know the way, and so it is with poultry keeping. First, then, it is necessary to see whether a suitable place can be provided for the stock. A run must be given, for the birds need space to move about in, and this in the open air. Some people seem to think that fowls, like human beings, can live anywhere. We have known them to be kept in cellars and in attics, in outhouses and in small boxes, from which places they were never allowed to roam. Such cannot be regarded as suitable in any sense of the term, and if a fair amount of space cannot be given it is much better not to keep fowls at all. Naturally they live in the open air, and to keep them where they cannot obtain fresh air must be injurious and a cause of disease. There are few yards or back gardens, especially in suburban and rural districts, where a ground space of 80 or 100 square feet cannot be spared, and upon this half-a-dozen hens can be comfortably maintained, if attended to as they ought. This space will be all the more suitable if along a wall facing south or west, and instead of being square should, if possible, be oblong—say five or six feet wide by sixteen to twenty feet long. The wall will form one side of the house and run, and be a saving in material.

For a roosting place, any suitable outhouse that is available can be utilized, or a wooden house can be erected at a small expense. If the owner desires to spend extra money on ornamentation he cannot do better than go to Spratts Patent or Boulton and Paul, who will be able to meet his taste and pocket. In case an old house is chosen, great care must be taken to keep it dry, free from draughts yet well ventilated, and it should be whitewashed out every two or three months. These matters will, of course, be attended to in the erection of new houses. Perches and the laying boxes can easily be made. If the floor is brick or cement it must be covered with a thick layer of fine soil or arches, and be renewed constantly, but if it be only earth let it be dug out, and a compost of cinder, ashes, gravel, quicklime, and water, put in upon a layer of broken bricks and coarse gravel. This will make a floor at once warm and dry, and one easily kept clean.

Where plenty of space is at command the run need give little trouble. But where it is small it should be prepared in a proper way. Even if the birds can have liberty to wander in a back lane, a garden or railway embankment, it will not be necessary to fence them in, except for convenience sake. But if they

must be kept to the ground set apart for their use it must be fenced, for which purpose wire netting is the best material. Birds of a heavy breed need not have the run covered over the top, but if of a light variety, and, consequently, good flyers, it must be covered over or the bird's wings cut. Perhaps netting is better than cutting the wings, as not only are the fowls kept in, but predatory enemies, like cats, are kept out.

The floor of the run need not be dealt with in the same manner as that of the house. The better plan is to dig the soil well over, and then mix sand, lime, and ashes with it, until the whole is of a light porous nature; or the earth may be entirely removed, and fine gravel substituted for it. After levelling, it may be flattened down with a spade, and will form a capital run, dry and warm. Both the run, and the floor of the house are better for being three or four inches higher than the ground without, as then any moisture there may be drained away quite easily. The floor of the run will get tainted in time, and unless it is renewed, will engender liver and other diseases, in spite of all that can be done. The run is better if swept daily, but even with this the rain washes much of the strength of the droppings into the soil, and it becomes charged with ammonia. For this reason it is better to dig the run up five or six times a year, and to renew it entirely once. Only in this way can crowded runs be kept sweet and clean.

It will be advisable to erect in one corner of the run a low shed, say about three feet square, which will serve the double purpose of giving a shelter during very hot or wet weather, and providing a place for the dust bath. Fowls appear to have a stronger objection to use the roosting-house, except hens to lay in, but if there is a small shed at hand they will gladly avail themselves of it for shelter. If there is room enough this shed may be made the full width of the run, and about three feet of its length, at the end adjoining the house, thus covering the fowls' door into the house. All may be boarded except half of the front, and it should be made perfectly watertight. Into this shed fine dry ashes should be put, and a little carbolic powder mixed with them. The bath may be added to daily, but should be renewed at least once every month or six weeks. In another part of the run a heap of lime, fine gravel, broken shells, and old mortar must be kept so as to provide material for the formation of shells, and to assist in the digestion of food.

The Veterinarian.

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

PEDIGREE.—Please state the difference in the terms full-blood and thoroughbred, as applied to cattle. If a "common cow" and her offspring are bred to a pure-bred bull, how many crosses will be necessary before the descendants can be recorded? [The terms full-blood, pure-bred and thoroughbred as applied to cattle are synonymous, though the last name is used to designate the race horse, and properly should not be used in relation to cattle. Rule 5 governing entries in the American Short-horn Herd Book reads as follows: "On and after January 1, 1885, no animal, except imported animals, shall be eligible whose sires and dams are not already of record." By this you will see the descendants of a "common cow" cannot be recorded, no matter how many crosses they may show.]

PLEURO-PNEUMONIA.—(1) When a herd of stock is bought how long must it remain separate to run no risk? (2) Cattle pastured in a lot adjoining a road, do they run any risk from diseased cattle passing in the road? If so, how near can they be pastured without running any risk, in short, how near can healthy cattle come to the disease without risk of contagion? (3) If diseased cattle have been pastured in a lot, will healthy cattle take the disease from being afterwards pastured in the same lot? If so, how long must the lot remain idle, or what must be done to make the lot safe for use? It appears to me that farmers will have to treat all cattle that they are not personally acquainted with as if they were infected, if the disease is not very shortly stamped out. [1] If cattle are apparently healthy at the time of purchase, three months isolation would insure safety. (2) Most certainly they do. When ani-

mals of different herds, or even animals of the same herd meet, and especially if a rail fence separates them, their first impulse is to put their noses together, and although the contact be only momentary, if the one is diseased the other inhales sufficient pestiferous breath to contaminate it. A space of three hundred feet between a diseased and healthy herd may be considered safe. (3) It depends on the time the healthy cattle are introduced into the lot after the diseased ones have been removed. In European countries the laws provide that premises (which includes buildings and pastures) shall be unoccupied for a period varying from sixty to ninety days after diseased animals have been removed. The exposure of lots and pastures to the atmosphere during that time is quite sufficient to render them safe, without the aid of disinfectants. Not so, however, with barns and sheds.]

DEBILITY IN COW.—A cow eight years old dropped a calf on April 17th. The calf (not large) came two hind legs first, and cow required assistance. A very small flow of blood followed. Whether she cleaned I cannot say. After calving, bran and middlings were fed for three days, about four to five quarts per day, then increased on 21st perhaps two quarts. She gave then 31½ lbs. of milk. I then added a small quantity of malt sprouts, and on the 23d I gave her liberal food with corn-meal added (two quarts). She gave on that day 36½ lbs. She then began falling off, and dropped down to 20 lbs. on May 1st. She does not eat her meal readily; leaves a portion of it, although I reduced her quantity fully half. She seems anxious for food, but when presented does not relish it. Apples and potatoes she took very readily, and evidently enjoyed them. She drinks little water, and very slowly. Her horns are cool, her hide loose; passage good, also urine. I can discover no cleanings—nothing except a little dried blood on her tail. [Give half doses of Moore Bros.' general cow drink once in three days. Turn spiced gruel down her, with a pint of best old ale three times a day.]

The Swede Turnip.

We have had no experience with this vegetable, and therefore cannot speak of it positively; but many persons in this country, and especially in the Eastern States, use them for cattle in the fall and winter. What follows we copy from the *Scottish Agricultural Gazette*:

In more respects than one the swede occupies a middle place between the mangold and the common turnip. It flourishes on heavier soils than are altogether suited to the growth of the common turnip, but is not so well adapted for culture of stiff clays as the mangold. In point of seed-time also, as in nutritive value, it takes the middle place.

As regards soil, the best results with swedes are, no doubt, obtained on the lighter class of soils, where the climate is moist; but in a drier climate, a clay soil of even considerable stiffness is found to add to the produce. In either case it is essential that the soil should be deep, finely pulverized, and free from stagnant water. The system of the best cultivators is to plow the land in autumn, or, at any rate, sufficiently early for the frost to thoroughly disintegrate the surface soil and form a proper depth of mould. As early in spring as the weather will permit, the land is well harrowed, and worked with the cultivator as deep as it was plowed. This retains the moisture. By spring plowing the soil is often rendered so dry that the germination of the seed when sown is entirely dependent on rain.

The rainfall of the last week or ten days has somewhat retarded swede sowing in clay-land districts, but on lighter soils it has been proceeding more generally. The time of sowing swedes in Scotland may be said to begin about the 10th of May, and it continues till about the end of the first week in June. In England the time for sowing is fully a fortnight later. In the south of England it is scarcely safe to sow swedes before the middle of June, or at least the second week in June; as, if sown earlier, they either run to seed or become mildewed.

The alternative of ridge or flat cultivation has often been the subject of a paper war. Ridge cultivation is universal throughout Scotland, Wales, the north of England, and Ireland; while

in the southern part of England cultivation on the flat is equally general. Humidity of climate, or the contrary, must be the test point here as in many other agricultural practices. In a dry climate, the flat culture is undoubtedly the most suitable; in a dry season it would be best for the north as well as for the south. Where artificial manure is used, the flat culture allows it to be drilled in under the seed at one and the same operation by means of the ordinary seed and manure drill.

It was formerly the rule to cultivate swedes and turnips in rows 27 inches apart. The tendency now is, however, to narrow the drills to 24 inches, and grow the plants closer so as to secure firmer and sounder roots. There are great varieties in the quantity of seed sown. In Scotland, three to four lbs. per acre is generally used. With later sowing in the south, two to three lbs. of seed is found sufficient. When ready for singling, the plants are thinned out to nine-inch distance in the rows. The horse-hoe or drill-grubber should be once used previous to singling, and it should afterwards be used once a fortnight or so until the leaves of the plants begin to meet in the rows. What was said in this column about manure for swedes may be held to excuse us from referring to that part of the subject again here.

The young swede turnip bears transplanting very well, which is a great help often in filling up blanks after attacks of fly, etc. Occasionally we have seen a whole field transplanted when the season was getting late and good plants were being thinned out in an adjoining field. But in transplanting one point is very important—care must be taken not to bury the crown of the young plant. It is also very necessary to fix the plant firmly in the ground, and if a careless planter is strictly charged to do this he is apt to pay little attention to the means by which the object is accomplished. The thing is done easily enough if you cram the lower stalks of the leaves below the surface. But this brings the soil, with the first rain at least, over the crown of the plant, and then it will never grow at all; it will just live, without increasing in size one single jot. Care, therefore, must be taken of this. The fixing is to be effected by applying the point of the dibble to the point of the root. Not to fix the plant is a great fault, but to bury the crown is a much greater; for if this is done the plant is sure to die.

Sea waves, according to observations of the United States Naval Hydrographic Officer, show a height of from forty-four to forty-eight feet, but those of a height greater than thirty feet are not commonly encountered. The longest recorded wave measured a half mile from crest to crest, with a period of twenty-three seconds. Waves having a length of 500 or 600 feet, and periods of ten to eleven seconds, are the ordinary storm waves of the North Atlantic.

Cameron Richards is 4 years old, and just beginning to observe the wonders of nature. One evening he turned from the window where he had been contemplating the appearance of the young crescent, and exclaimed: "O, Lena! the moon's broke."

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THE STRAY LIST.

HOW TO POST A STRAY.

BY AN ACT of the Legislature, approved Feb 27, 1886, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisement, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker up, to the KANSAS FARMER, together with the sum of fifty cents for each animal contained in said notice. And such notice shall be published in the FARMER in three successive issues of the paper. It is made the duty of the proprietors of the KANSAS FARMER to send the paper free of cost, to every county clerk in the state to be kept on file in his office for the inspection of all persons interested in strays. A penalty of from \$5 00 to \$50 00 is imposed on 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 and penalties for not posting.

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

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

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

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

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

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

The Justice of the Peace, all 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 appraisement.

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

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

Strays for week ending June 10, '85.

Rice county--C. M. Rawings, clerk.

BULL--Taken up by Frank W. Truesdale, (aw 1/2 sec. 3, tp. 20, r. 8), in Atlanta tp., May 15, 1885, one 1-year-old red bull, no marks or brands; valued at \$15.

STEER--By same, one 1-year-old red and white spotted steer; valued at \$15.

HEIFER--By same, one 1-year-old red heifer, white spot in face, white feet, no marks or brands; valued at \$15.

2 STRERS--By same, two 1-year old red steers, slit in each ear; valued at \$30.

Atchison County--Chas. H. Krebs, clerk.

MULE--Taken up by J. M. Osborn, of Grasshopper tp., (Muscotah P. O.), May 22, 1885, one brown mule, white spot on root of tail, lame in left hind leg, small size, 12 years old; valued at \$50.

Harper county--E. S. Rice, clerk.

PONY--Taken up by Matthew Wilson, of Odell tp., May 7, 1885, one black horse pony, 12 or 15 years old, saddle and harness marks, white hind feet, star in face.

Allen county--R. W. Duffy, clerk.

PONY--Taken up by T. H. DeHaven, of Humboldt tp., June 3, 1885, one pony mare, 9 years old, blaze in face, branded on left hip with brand similar to inverted T (L), Mexican brand on both hips; valued at \$15.

Chase county--J. J. Massey, clerk.

HORSE--Taken up by R. E. Harris, of Toledo tp., May 6, 1885, one black horse with small white spot in forehead, branded 8 on left shoulder, supposed to be 8 years old; valued at \$40.

Crawford county--Geo. E. Cole, clerk.

MULE--Taken up by G. E. Wampler, of Walnut tp., one horse mule, about 14 hands high, dark brown, about 14 years old, harness and saddle marks; valued at \$30.

Franklin county--L. Altman, clerk.

MULE--Taken up by A. J. Johnson, of Williamsburg tp., one brown horse mule, collar and harness marks, about 15 hands high, had leather headstall on, about 10 or 12 years old; valued at \$50.

Osage county--C. A. Cottrell, clerk.

STEER--Taken up by Asher Smith, of Melvern tp., June 1, 1885, one 3 year old roan steer, crop off of under side of left ear, white on belly; valued at \$25.

Rush county--L. K. Hain, clerk.

PONY--Taken up by Geo. H. Delleit, of Garfield tp., May 20, 1885, one gray mare Texas pony, 4 years old, brand similar to W. H. L.; valued at \$25.

PONY--By same, one dun mare Texas pony, 4 years old, also branded W. H. L.; valued at \$25.

Montgomery county--H. W. Conrad, clerk.

FILLEY--Taken up by John Ellison, of Fawn Creek tp., May 15, 1885, one brown filley, 2 years old, white spot in forehead, short thick mane, slim flaxen tail, no brands visible; valued at \$30.

Shawnee county--Chas. F. Spencer, clerk.

MARE--Taken up by Markes Owen, of Soldier tp., in May, 1885, a 2-year-old black mare, both hind feet white, star in forehead, no marks or brands visible; valued at \$50.

PONY--Taken up by Wm. McNoun, of Soldier tp., one gray mare pony, 14 years old, 13 1/2 hands high, saddle mark on back, no other marks or brands visible; valued at \$20.

Ottawa county--W. W. Walker, Jr., clerk.

COW--Taken up by John McDade, of Ottawa tp.,

one red cow, 4 years old, slit in right ear, branded on hip c. 3.; valued at \$25.

Hodgman county--J. P. Atkin, clerk.

PONY--Taken up by A. E. Saaborn, of Marensa tp., May 16, 1885, one light bay horse pony, small white spot in forehead; valued at \$15.

Strays for week ending June 17, '85.

Brown county--G. I. Prewitt, clerk.

COLT--Taken up by A. Nellans, of Robinson tp., June 4, 1885, one bay stud colt, 1 year old past, white spot in forehead; valued at \$20.

MARE--Taken up by C. M. Truax, of Robinson tp., June 4, 1885, one claybank mare, about 10 years old, branded on left jaw with X & H., on left shoulder S. O. and T. O. on left thigh.

Rush county--L. K. Hain, clerk.

PONY--Taken up G. S. Smith, of Illinois tp., May 23, 1885, one black or brown mare pony, 15 years old, blemish on left hind leg, branded P. on left shoulder; valued at \$30.

Cowley county--J. S. Hunt, clerk.

PONY--Taken up by A. N. Gorden, of Silverdale tp., June 1, 1885, one black mare pony, 14 hands high, indescribable brand on left hip and another on left shoulder and brand similar to V on left jaw, star in forehead, snip on nose, 1 ft hind foot white; valued at \$40.

Crawford County--Geo. E. Cole, clerk.

PONY--Taken up by D. A. Fowler, of Walnut tp., May 23, 1885, one bay mare pony, about 13 hands high, white in face, right eye glass-colored, a lump on left side of nose, branded D. C. on left shoulder and H. on right.

Anderson county--A. D. McFadden, clerk.

MARE--Taken up by J. P. McClure, of Monroe tp., one iron-gray mare, 6 years old, hind foot white, some white in face and wart mark on left side of neck; valued at \$40.

Decatur county--R. A. Reasoner, clerk.

MARE--Taken up by N. J. Bradley, of Olive tp., (Oberlin P. O.), May 27, 1885, one bay mare, branded on left hip with capital A with half circle on top, about 12 years old; valued at \$30.

Davis county--P. V. Trovinger, clerk.

COW--Taken up by Harper King, of Jackson tp., May 5, 1885, one red cow, little white, about 3 years old; valued at \$18.

Strays for week ending June 24, '85

Norton county--A. H. Harmonson, clerk.

MARE--Taken up by Myron Follett, of Modell tp., May 25, 1885, one black mare, 12 years old, branded B up and B down on left shoulder, branded 3 and J with O on top end of letter on left hip; valued at \$30.

COLT--By same, one light bay male colt, 1 year old, left hind foot white; valued at \$20.

COLT--By same, one strawberry-roan male colt, 1 year old; valued at \$20.

PONY--Taken up by H. V. Love, of Modell tp., June 1, 1885, one light sorrel mare pony, 3 years old, has a hard lump under left eye, branded A S on left shoulder, brand on left hip supposed to be G L upside down and a bar on right hip; valued at \$12.

Sumner county--Wm. H. Berry, clerk.

HORSE--Taken up by Henry Wilson, of Walnut tp., May 29, 1885, one sorrel horse, 14 years old, 14 1/2 hands high, white face three white feet, branded B3 on right shoulder; valued at \$15.

MA--Taken up by J. A. Beeve, of Conway tp., May 20, 1885, one bay-roan mare, 12 years old, star in forehead, collar marks on shoulder, saddle and harness marks on the back; valued at \$35.

Wabaunsee county--H. G. Licht, clerk.

HORSE--Taken up by Geo. F. Martin, of Kaw tp., June 1, 1885, one bay horse, 15 years old, 5 feet high, black mane and tail; valued at \$25.

Harper county--Ernest S. Rice, clerk.

MARE--Taken up by S. W. Carther, of Ruella tp., June 1, 1885, one bay mare, hind feet partly white and rope mark on left hind leg; valued at \$100.

Franklin county--L. Altman, clerk.

MARE--Taken up by D. M. Conner, of Richmond tp., May 14, 1885, one sorrel mare, 4 years old, slit in left ear, has a ring bone on left hind foot, both hind feet white, has collar marks; valued at \$50.

Republic county--Y. R. Parks, clerk.

COW--Taken up by Geo. A. Tenpenine, of Richland tp., May 1, 1885, one brindie cow, about 4 years old, branded with a letter R on right haunch.

CALF--By same, one sucking bull calf, light red, branded on right haunch with letter R; both animals valued at \$30.

Decatur county--R. A. Reasoner, clerk.

COW--Taken up by Christian Graves, of Bassetville tp., (Oberlin P. O.), one red cow with white spots on and under flanks and white spot in face, ears frozen or cut, 6 years old; valued at \$20.

Morris county--A. Moser, Jr., clerk.

PONY--Taken up by A. G. Pickett, of Valley tp., May 9, 1885, one dark bay or brown mare pony, 14 1/2 hands high, small white spot over left eye, brand on left hip and letter S on left rump, about 4 or 5 years old; valued at \$30.

Kingman county--Chas. Rickman, clerk.

MULE--Taken up by Eliza Powell, of Belmont tp., June 10, 1885, one dark brown mare mule, branded with a circle and 7; valued at \$40.

Pratt county--J. W. Naron, clerk.

COW--Taken up by Chas. S. Rooks, of Gove tp., (Laundale P. O.), June 1, 1885, one red cow, indescribable brands; valued at \$15.

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.)

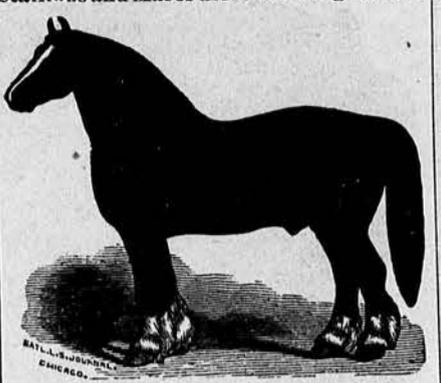
JAMES A. PERRY

Importer and Breeder of Norman Horses.

River View Stock Farm, Wilmington, Ill.

Fifty miles south of Chicago, on the Chicago & Alton railroad.

OVER ONE HUNDRED CLYDESDALE, ENGLISH DRAFT AND PERCHERON NORMAN Stallions and Mares arrived in August, '84.



Another importation just received, ages range from two to four years old. Our stock won fifteen premiums at the Iowa State Fair of 1884; also sweepstakes on Clyde-dale stallions and sweepstakes on Percheron-Norman stallions. 300 High-Grade Mares, in foal to our most noted horses, for sale.

Advantages offered to customers at our ranch: Many years' experience in importing and breeding. Immense collections, variety of breeds, enabling comparison of merits. The best of everything. A world-wide reputation for fair and honorable dealings. Close proximity to all the through railroad lines. Low prices consequent to the extent of the business. Low rates of transportation and general facilities. Visitors welcome at our establishment. Ranch 2 miles west of Keota, Keokuk Co., Iowa, on the C. R. I. & P. R. R., 15 miles west of Washington, IA. SINGMASTER & SONS, Keota, Keokuk Co., Iowa.

PERCHERON NORMAN, CLYDESDALE and ENGLISH DRAFT HORSES.



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

FOR SALE!

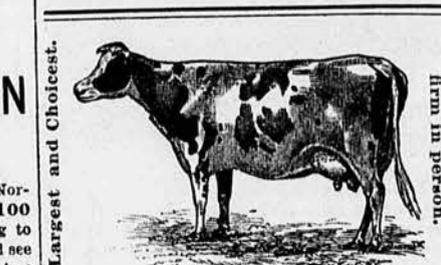
Fifteen extra fine PEDIGREED SHORT-HORN BULLS for sale at reasonable prices. G. W. GLICK, Atchison, Kansas.

Pioneer Herd of Holstein Cattle

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.

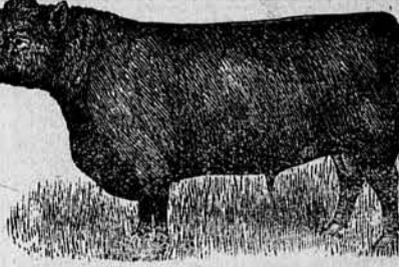


Over thirty yearly records made in this herd average 14,212 lbs. 5 oz.; average age of cows four and a half years. In 1881 our entire herd of mature cows averaged 14,164 lbs. 15 ozs. In 1882 our entire herd of eight three year-olds averaged 12,388 lbs. 9 ozs. April 1, 1884, ten cows in this herd had made records from 14,000 to 18,000 lbs, each, averaging 15,608 lbs. 6 3-10 ozs. For the year ending June, 1884, five mature cows averaged 15,621 lbs. 1 2-5 ozs. Seven heifers of the Netherland Family, five of them two years old and two three years old, averaged 11,565 lbs. 1 2-5 ozs.

BUTTER RECORDS.
Nine cows averaged 17 lbs. 5 1 2 ozs. per week. Eight heifers, three years old, averaged 13 lbs. 4 3 4 ozs. per week. Eleven heifers, two years old and younger, averaged 10 lbs. 3 ozs. per week. The entire original imported Netherland Family of six cows (two being but three years old) averaged 17 lbs. 6 1-6 ozs. per week. When writing always mention the KANSAS FARMER.

SMITHS, POWELL & LAMB, Lakeside Stock Farm, Syracuse, N. Y.

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 thirty head 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.

HEREFORDS!!



Important information for the breeders and stockmen west and southwest of the Missouri river! 60 acclimated imported Hereford Bulls for Sale! They represent blood of Horace, Lord Wilton, The Grove 3d, and other prize-winning sires. Thirty 18 months to 2 years; thirty 14 to 18 months old. Selected from best herds in England. Recorded in A. H. K. or eligible and entered for record in Vol. V. Illustrated Catalogues. G. E. HUNTON, Breeder, Abilene, Kansas. (U. P. Ry., 163 miles west of Kansas City)

THE ELMWOOD HERD

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

SHORT-HORN CATTLE

AND BERKSHIRE SWINE.

Our herd numbers 180 head of well-bred Short-horns, comprising Cruickshanks, Rose of Sharons, Young Marys, Arabellas, Woodhill Duchesses, Lavinias, 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 as milkers. Good, useful animals of both sexes always for sale. Premium Berkshires very cheap.



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.

HOLSTEIN CATTLE.

550 Head on Hand.

The Busy Bee.

Dividing Vs. Natural Swarming.

It is probably best for beginners to rely only on natural swarming for their increase, although, dividing, if done at the right time and in the proper manner, is just as safe and much the surer plan. It should be understood that the old queen and the old bees should be kept together and in the hive where the most work is to be done. Nothing is to be gained by dividing colonies until the hives becomes well filled with bees. One queen in a full colony will lay more eggs than two queens with a handful of bees each. Therefore it is best to keep them all together until they show signs of wanting to swarm, and both divisions will be the stronger for it. To make the division, select a single frame of comb containing honey and brood and the old queen. Place this in the new hive and fill it out with frames of comb or foundations. Move the old hive away and place the new in its place. The bees returning from the field will enter the new hive in its place making quite a strong swarm. The working bees which leave the old hive will also return to the new hive at the old location. The hatching brood in the old hive will soon make that also very strong.

When several additional divisions are desired it is a good plan at about the eighth day to break up the old hive into several nuclei colonies, selecting a queen cell for each. They need not be very strong, although it would help matters to give each a frame of fresh brood from other colonies if you have them. Later, when the young queens have hatched out and become fertile these can be built up into strong colonies. This nucleus form, or gradual increase, is our plan of working, and can be carried on at a very rapid rate. With our nuclei already formed, should a colony swarm or show signs of swarming, we remove all the frames of brood, filling the hive again with empty combs. Then shake the bees and queen from the frames removed down in front of the new hive and let them enter as a new swarm. The frames of hatching brood are then distributed to the several nuclei previously prepared. In this manner we keep the old bees with their queen at work all the time confining all idleness to the nuclei. Neither is there much foolishness there, for the young bees have their hands full in caring for the brood given them. Young bees will hardly work in the fields until about ten days old, but they will do the work in the hive commencing when scarcely more than one day old.

Hives containing young queens should be examined quite frequently until the young queen becomes fertile. Should one fail to return from her bridal trip, a frame of eggs and brood should be given at once that they may raise another queen, or until you have time to give another queen cell.—*Indiana 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
to place an order for
A SPRING FIG;

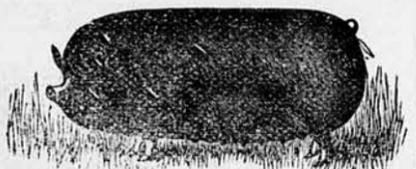
POLAND-CHINA SWINE.

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

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

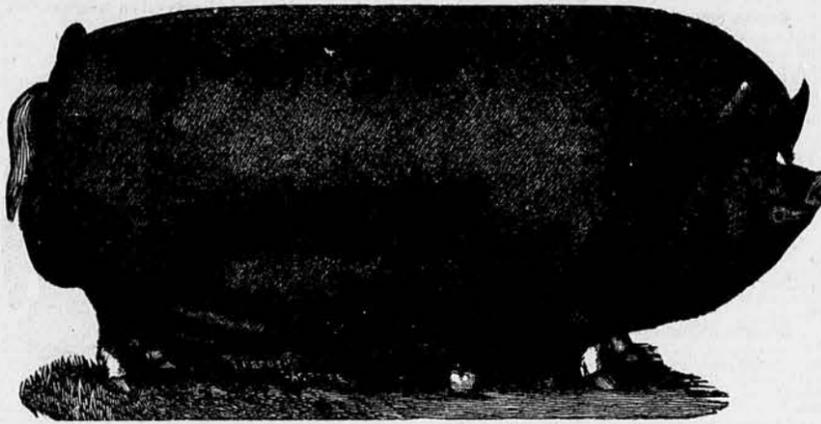
Write to
MILLER BROS.,
Junction City,
Box 298. - Kas.

PLEASANT VALLEY HERD —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. **S. McCULLUGH,** Ottawa, Kansas.

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, including sweepstakes as best boar of any age 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 fourteen States and Territories for my swine, but I now have about 40 very choice young Boars and Sows old enough to use, that I will sell at prices to suit the times. A case of Cholera has never occurred in my Herd, which has come through the past severe winter in very thrifty condition. Twelve different families of Sows and five noted Boars in use. Satisfaction guaranteed. **Send for Catalogue to**

A. W. ROLLINS, Manhattan, Kansas.



EARL OF CARLISLE 10459,

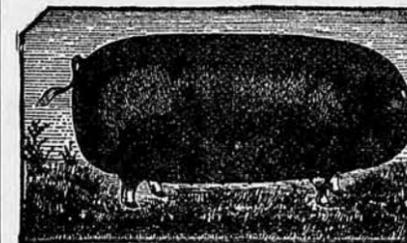
A son of Imp. Royal Carlisle 3433 and Imp. Fashion, and Duke of Wellington 12392, winner of second prize at St. Louis Fair in 1884, under one year old. My pigs this spring are very fine, from five different boars. I never have had a case of disease in my herd of any kind. Have some choice Boars now ready 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.**

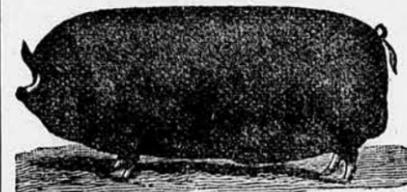


JAY HAWNER, 3295.
Owned by **J. V. RANDOLPH, Emporia, Kas.**

Established in 1868.



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 **WM. B. BOUTH & SON,** Winchester, Jefferson Co., Kas.

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. GIBBONS & Co.,** West Chester, Chester Co., Pa. Send stamp for Circular and Price List.

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 12392, 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.**

RIVERSIDE HERDS POLAND and BERKSHIRE SWINE.

Having been a breeder of Poland-China Swine in Kansas for seventeen years, it is with pride as well as pleasure that I announce to the people of the New West that I am offering the finest lot of Pigs that I have ever seen offered, representing the best strains of the breeds, and thoroughbred. I will fill orders of either sex and any age at reasonable figures. All stock warranted to give satisfaction. Come and see my stock or write, and if not as represented, I will pay your expenses. Orders promptly filled.

J. V. RANDOLPH, Emporia, Kansas.

TIMBER LINE HERD —OF— HOLSTEIN CATTLE and POLAND-CHINA PIGS.

We have on hand 150 head of fine pigs for sale now and for spring trade. Also a fine yearling Holstein bull and a few grade Holstein cows for sale. Splendid milkers. We guarantee satisfaction. All correspondence answered. Inspection invited.

W. J. ESTES & SONS,
Andover, Butler Co., Kas.

Poland-China and Berkshire HOGS.



We have for sale a fine lot of Poland-China and Berkshire Pigs, from 2 to 6 months old. Ours is the largest herd of pure-bred Swine in the State, and the very best strains of blood of each breed. If you want any of our stock write us and describe what you want. We have been in the business many years, and have sold many hogs in this and in other States, and with universal satisfaction to our patrons. Our hogs are fine in form and style, of large stock, quick growth, good bone, hardy and of wonderful vitality. Our Poland-Chinas are recorded in the American Poland-China Record.

RANDOLPH & RANDOLPH,
EMPORIA, LYON Co., KANSAS.

EMPIRE BREEDING FARM,

G. M. EMERICK, 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.**

Acme Herd of Poland-Chinas

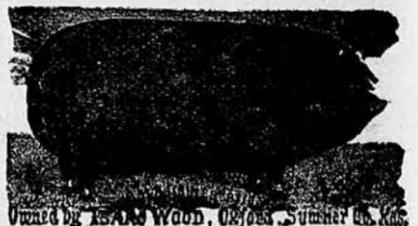


We are having a splendid lot of pigs for this season's trade, sired by "Challenge 4989" and "Kentucky King 3661." Orders taken now. Pedigrees gilt-edge and stock first-class. We claim that our "Challenge 4989" is the best boar in Kansas, "for money, marbles or chalk." **STEWART & BOYLE,** WICHITA, KANSAS.

Dr. Thomas Blackwood,



Breeder of **POLAND-CHINA SWINE.** My Poland-China herd numbers over 75 head. My stock is first-class, all registered, and guaranteed just as represented. Choice breeding stock not akin, of both sexes, for sale at all times at reasonable prices. All correspondence promptly answered. For full particulars and prices, address, **THOMAS BLACKWOOD,** Clay Center, Kansas.



ISAAC WOOD, Oxford, Kas.—PIONEER— The sweepstakes herd of the Southwest for three consecutive years. Comprising the blood of all the popular strains of the day. Six years a specialty. Pigs furnished not of kin. Quality of stock and pedigrees first class. Prices low, and favorable rates by express to all points. Pigs of different ages ready to ship, and orders taken for future delivery. Satisfaction guaranteed. For history of herd, see Vol. IV, page 31; Vol. V, page 47, and Vol. VI, page 37. Ohio P.-C. Record.



RANKIN BALDRIDGE, Parsons, Kansas,

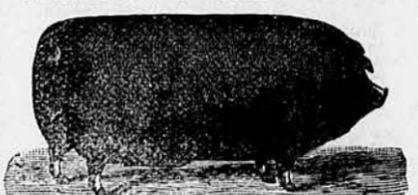
Breeder of Pure Poland-China Hogs. This herd is remarkable for purity, symmetry, and are good breeders. Black Jim, a prize-winner, bred by B. F. Dorsey, heads the herd. Stock recorded in Central Poland-China Record. Correspondence invited.

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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 43 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.

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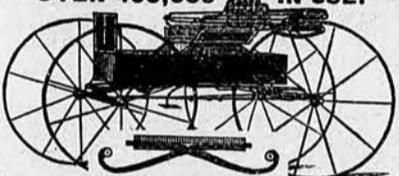


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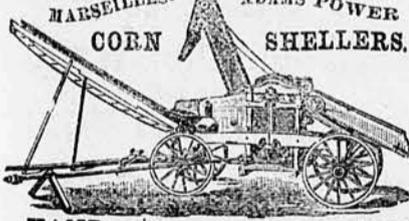
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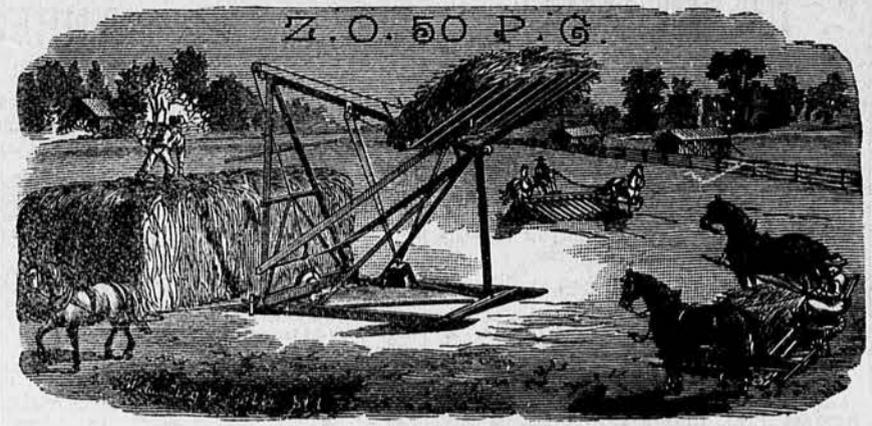


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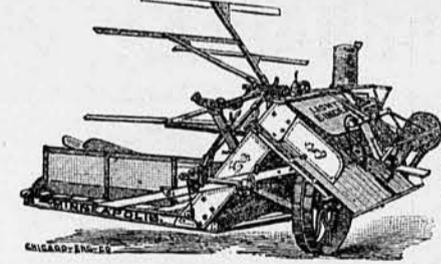
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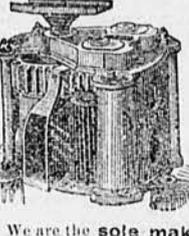
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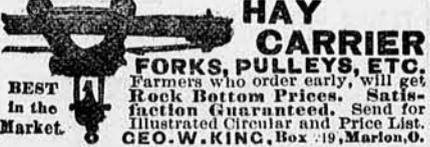
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 FOR HORNED ANIMALS, Or Bull Conqueror.
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NEW 'Singer' Model Sewing Machines only \$15
 Including an \$8.00 set of extra attachments of 915 pieces and needles, oil and usual outfit of 12 pieces with each. **Guaranteed perfect, warranted 5 years.** Handsome, durable, quiet and light running. Don't pay \$30 to \$50 for machines no better. We will send ours anywhere on trial before paying. Circulars free. Give \$15 to \$25 by addressing **Geo. Payne & Co.,** 47 Third Ave., Chicago, Ills.



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EXTRA BARGAINS.—Five extra Yearling Short-horn Bulls for sale cheap. L. A. Knapp, Dover, Kansas.

W. M. FINCH, of North Topeka, south of engine house, has three imported English Shire stallions that will make the season of 1885. Also for sale by same party, Plymouth Rock eggs. For particulars add. him.

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Late Flat Dutch Cabbage Plants, delivered at Express office in Kansas City, at the low price of \$1.25 per Thousand. Grown from the very best Puget Sound seed, and are very fine plants.
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31 head of High-grade Short-horn Bulls.
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It is called the "Starved Rooster Thresher" because it puts the grain in the half bushel instead of the straw stack, and leaves none in the straw-stack for chickens to fatten on as is the case with other threshers.

Owners of Aultman & Taylor Threshers make more money than the owners of any other Machines: Because they can always have the preference of jobs; because they can obtain better prices for their work; because they can thresh grain in all conditions, when other machines cannot; they have less expenses, less detentions, less breakages, for the machinery is durable and strong.

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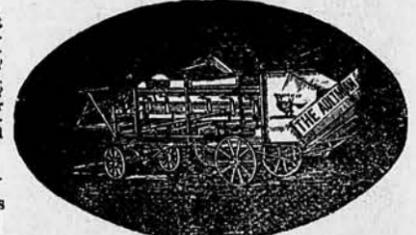
Threshermen, See the New Improvements for 1885!

On Separator and Engine, which places this machinery still further in advance of all competitors. The light-running, double-gear Aultman & Taylor Horse Power is also kept ahead.

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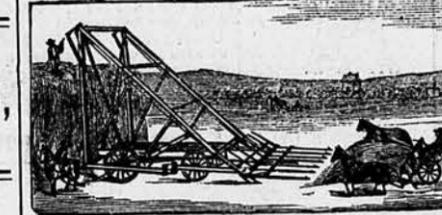
Call on our Agents for Descriptive Pamphlets, Price Lists, etc., giving the liberal terms offered on this Machinery, or send to us direct.



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A draft from my own herd, and also the entire herds of C. R. Brown, Geo. C. Brown and Samuel Brown, to consist of upwards of 100 head, about 80 females and 20 yearling bulls, ready for service, from some of the best families of Short-horn in America, such as Young Marys, Princesses, Rose of Sharon, Young Phyllises, Adelaides, Ianthes, and other good families. This will constitute one of the choicest offerings of Short-horns ever made at Kansas City, both as to breeding and individual merit. TERMS:—Cash, or a credit of six months at 10 per cent, on bankable notes.

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75 HEAD OF GOOD SHORT-HORN COWS, HEIFERS AND YOUNG BULLS. The offerings comprise Rose of Sharons, Young Marys, Cruickshanks, Arabellas, Blossoms, and all sorts that are useful for the purposes for which Short-horns are bred—beef and milk. They are mostly young cows and heifers, and all old enough have calves or are in calf by the splendid English bull Imported Grand Duke of Barrington 3d (4644) or the prize Cruickshank bull Barmpton's Pride 49854, or the pure Princess bull Blythedale Prince 42931, or others as good as any in the State of Kansas. Every animal, except young calves, is recorded. Every animal offered and receiving a bid will be sold. TERMS:—Twelve months credit on good, bankable notes at 10 per cent. interest. Three per cent. off for cash. **PEABODY** is on the Atchison, Topeka & Santa Fe R. R. fifty five miles west of Emporia. Three trains each way daily. **Col. S. A. SAWYER, Auctioneer.** **A. H. LACKEY & SON, Peabody, Kas., June 20, 1885.**

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