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KANSAS CITY FAT STOCK SHOW.

The second annual Fat Stock Show, held at River View Park, Kansas City, last week, was a pronounced success. The weather was all that could be desired, but the attendance was little better than last year. The show of cattle was quite commendable, especially of Short-horns, Herefords and grades. The representation of the Black polled cattle was not up with last year. The show of swine and sheep was some better than last year. The swine exhibit should have been ten times as large, when we consider the resources tributary to Kansas City, which place stands almost unrivaled as a hog market. The show of Holsteins, the great combination breed of cattle, for the first time at a fat stock show, attracted considerable attention and won the deserved comment of being representative beef animals.

The exhibits of swine were made by W. G. Peters, Kansas City, five original Missouri hogs; J. M. Minton, Wapella, Ill., Berkshires, Chester White and Essex; Ira M. Bennett, Damsen, Neb., ten pens of Poland-Chinas; and the same breed shown by Taylor Bros., Waynesville, Ill.

Sheep were shown as follows: J. H. Potts & Son, Jacksonville, Ill., ten South Downs; W. G. McCandless, Cottonwood Falls, Kas., three pens of Cotswolds and one car-load of range sheep; Lucien Scott, Leavenworth, two Lancaster wethers; Thomas Clark, Beecher, Ill., three Cotswold wethers.

The cattle exhibited were as follows:

Short-horns.—H. W. Johnson, Willis, Kas., two grades; Morrow & Renick, Clintonville, Ky., fourteen grades and thoroughbreds; S. C. Duncan, Smithville, Mo., one; J. H. Potts & Son, Jacksonville, Ill., nine head, including three grades; Canada West Farm Association, two grades; W. H. Fulkerson, Jerseyville, Ill., six head; W. H. Embry, Anthony, Kas., one; C. S. Barclay, West Liberty, Ia., seventeen head, including twelve grades; H. C. Duncan, Osborne, Mo., one; John Barrett, Plattsburg, Mo., two grades; E. B. Millett, Brookville, Kas., eleven head, including seven grades; A. M. Rogers, Independence, Mo., one grade; J. C. McKittrick, Greenwood, Mo., one grade and one thoroughbred.

Polled cattle.—M. R. Platt, Kansas City, exhibited six grade Galloways and one Aberdeen-Angus. This was the only Galloway exhibit. Geary Bros., London, Canada, showed two Angus; Indiana Blooded Stock company showed two grade Angus, Blaine and Logan, and a cross-bred Hereford-Angus, Burleigh's Pride.

Herefords.—Two grades by Ford & Drimie, Earlham, Iowa; ten breeding thoroughbreds by J. S. Hawes, Colony, Kas.; one by Whaley & Young, Pleasant Hill, Mo.; three grades by J. M. Price, Williamsville, Ill.; two by Gudgell & Simpson, Independence, Mo.; two by Thos. Clark, Beecher, Ill.; one grade by Downing & Greatrex, Woolandville, Mo.; two grade Herefords by J. A. Funkhouser, Plattsburg, Mo.; eight breeding thoroughbreds by W. Morgan & Son, Irving, Kas.

Important Awards.

The judges on cattle were J. M. Denhope, Pittsburg, Pa., John Quam, St. Louis, Mo., and H. D. Adams, Aberdeen, Scotland. Two of them did the judging, the other acting as umpire, deciding when they failed to agree.

The only awards given at this time are the class and ring sweepstakes, as only such

animals as won in their class were allowed to compete for sweepstakes.

SWEEPSTAKES.

Best Short-horn steer, spayed or barren heifer, \$50; awarded to Schooler, 1,034 days old, weight 1887 pounds, average daily gain 1.79 pounds; owned by Morrow & Renick.

Best Hereford steer, spayed or barren heifer, \$50; awarded to Suspense, 884 days, weight 1750 pounds, average daily gain 1.98 pounds; owned by Gudgell & Simpson.

Best Aberdeen-Angus steer, spayed or barren heifer, \$50; awarded to Blaine, 392 days, weight 1,057 pounds, gain per day 2.70 pounds; owned by Indiana Blooded Co.

Best Holstein steer, spayed or barren heifer, \$50; awarded to Gottlieb, age 1,030 days, weight 1,807 pounds, gain per day 1.75; owned by Lucien Scott.

Best grade or cross-bred steer, spayed or barren heifer, \$50; awarded to the Hereford, Jim Lee, age 1,244 days, weight 1,875 pounds; owned by Lucien Scott.

Best thoroughbred cow, any breed, 3 years and over, \$50; awarded to the Aberdeen-Angus cow, Bride 3d of Blairshinnock, age 1671 days, weight 1,443 pounds; owned by G. W. Henry.

Best steer, spayed or barren heifer, any breed, 3 years and under 4, \$100; awarded to the Hereford, Jim Lee, owned by Lucien Scott.

Best steer, spayed or barren heifer, 2 years and under 3, \$75; awarded to the Short-horn steer, Schooler, owned by Morrow & Renick.

Best steer, spayed or barren heifer, any breed, 1 year and under 2, \$50; awarded to the Short-horn steer, Frank, age 523 days, weight 1875 pounds; owned by J. H. Potts & Son.

Carloads.—Best lot of five steers, 3 years and under 4, \$100; awarded to the Short-horns owned by C. S. Barclay, West Liberty, Iowa.

Best lot of five steers, 2 years and under 3, first premium, \$100, awarded to the Short-horns owned by Morrow & Renick; second premium, \$50, to Hererords owned by Indiana Blooded Stock Co.

Best lot of five steers, 1 year and under 2, first prize of \$100 awarded to the Short-horns owned by J. H. Potts & Sons; second price, \$50, awarded to Morrow & Renick's Short-horns.

SPECIAL PREMIUMS.

For the special sweepstakes premium of \$50, offered by the Holstein Breeders' Association of America for the best thoroughbred Holstein steer, cow or barren heifer, awarded to Tourmaline, age 1320 days, 1455 pounds, 1.10 pounds daily gain; owned by Thos. B. Wales, Jr.

For best beef animal in the show, and raised by exhibitor, *Breeders' Gazette* challenge gold medal, worth \$100. Before passing out of the hands of the association this medal must be won two years in succession or any three years, by the same person. It was awarded November, 1883, to the red and white Short-horn steer, Renick, exhibited by Morrow & Renick, Clintonville, Ky. Awarded to Burleigh's Pride, a cross-bred Hereford-Angus, owned by Indiana Blooded Stock Co.

For Studebaker Bros.' Manufacturing company's premium of a \$75 Studebaker wagon for the best steer, 4 years old or over, raised and fed in Kansas or Missouri, awarded to grade Short-horn, Snowbank, owned by A. M. Rogers & Son.

SWINE SWEEPSTAKES.

Best barrow, 1 year and under 2, premium,

\$25, awarded to Grover Cleveland, a Texas hog, owned by W. G. Peters.

Best barrow under 1 year, premium \$25, awarded to Blackey, a Poland China, owned by J. M. Menton.

For best five fat barrows, 1st premium \$50, to Ira M. Dawson; 2d premium, \$25, to J. M. Menton.

Best car load of hogs, not less than 40 nor more than 45. The premium of \$100 awarded to Ira M. Dawson, Bennett, Neb.

SHEEP SWEEPSTAKES.

Best wether, 2 years or over. The premium of \$25, awarded to Prince, Southdown, owned by J. H. Potts & Son.

Best wether, 1 and under 2. The premium \$25, awarded to Jerry, a Cotswold, owned by Lucien Scott.

Best wether under 1 year. The premium \$25, awarded to Bert, Southdown and Cotswold cross, J. H. Potts & Son.

Best lot of 50 range sheep. The premium of \$30 awarded to W. Guy McCandless.

DRESSED CARCASS.

Cattle.—The Judges in this class were Messrs. Joseph Mulhall, St. Louis, and W. S. Stebbins, Iowa City, Ia. The various beef breeds competing. The animals slaughtered were placed in charge of Captain Lowe, superintendent of the grounds, last Monday, in order that all might receive the same feed and care until the day of slaughter. They were killed, dressed and weighed under the direction of the awarding committee. The premium in each ring was awarded that animal whose dressed carcass was deemed of the highest market value in proportion to live weight. The dressed carcass remains the property of the exhibitor.

For best carcass of steer, spayed or barren heifer or cow, 3 years old or over; premium, \$75, awarded to the imported Aberdeen-Angus, owned by G. W. Henry.

Best carcass of steer, or spayed heifer, 2 and under 3, premium \$75, awarded to a grade Galloway owned by M. R. Platt.

Best steer or spayed heifer, 1 and under 2, premium \$50, awarded to a Short-horn owned by W. H. Fulkerson.

Sweepstakes carcass of steer, spayed or barren heifer or cow, any age or breed, and having won prizes in the above named classes, premium \$100, won by Pride 3d of Blairshinnock, an Aberdeen-Angus, owned by G. W. Henry.

The two premiums of \$50 offered for best sheep carcasses were won by the Southdown owned by J. H. Potts & Son.

The best swine carcass premiums, \$50, were won by the Texas thoroughbreds, owned by W. G. Peters.

This show which was exceedingly interesting, as well as educating in its effect, deserved a very much larger attendance. No farmer or breeder can fully realize the merits of such a show until they have visited it. Farmers could exhibit and win as well in this show as breeders, and next year it is hoped that farmers all over Kansas will be represented and present at the next show.

Musical.

[From the Boston Evening Traveller.]

The Knabe piano, which has such a wide popularity, is considered by many experts to be superior in every way to any other piano in the world. The success of this piano has only been attained by years of careful study, and the Knabe, with its excellent singing qualities, its great power, the elasticity of touch, and superior workmanship, is justly the favorite. Herr Faeltens' piano solos at

the recent Worcester festival, the Schumann's concerto, in A minor op. 54, and Liszt's Rhapsodie No. 4, which were so highly praised, were both performed upon a Knabe piano, Herr Faeltens pronouncing it to be the best piano he had ever seen.

Chickens, Etc.

Kansas Farmer:

I am very much interested in the "Poultry Department." Wish more people would give us their experience. Perhaps it may have cost them dearly, but it will come cheaper to us.

After trying several varieties, we like the Plymouth Rock best, and hope another season to keep only full-blooded stock. We have no fancy yards and houses—just give them a large range, feed well, and reap the profits. We often hear of poultry being too fat to lay, but have never had any trouble that way, though food lays by them nearly all the time, and the greater part of the year we get half as many eggs each day as we have hens, sometimes more. I feed in the morning, cooked food—either chop, chop and shorts mixed, or small potatoes and shorts, and add a good sprinkling of red pepper. I feed this every morning, for if I skip two or three mornings a week, or in cold weather even one morning, I notice the difference in eggs. In the afternoon, feed wheat, oats and corn—all they want. One can get poor wheat at the mills very cheap. I keep clear water where the hens may get it at all times, and it is amazing how much they drink. Water kept in an old iron vessel, or even with a little copperas dropped in it, I am told, is one of the best preventives of cholera. Again, our hens get green rye or wheat all the time. They will keep quite a patch eaten down.

We tried a "Common-Sense" incubator last spring, but did not make a success of hatching from it. We will try another kind, I think.

I have two chicks whose legs seem to fall them almost entirely. They have no fever, eat and drink well. Have had two others get better from such trouble after a long time. Will some one give us the cause and remedy? I almost think, from observation, that it is a bone difficulty. Perhaps they do not have proper bone food.

Again, if any one of the readers of this paper knows aught in regard to the "Cream Agitator," won't they just tell it? I am very anxious to know if it is really a success. Also, if those using submerged cans have any trouble in winter with keeping the temperature right for the cream.

O! Agnes Weir, how happy you must be to have your winter clothing all ready to put on. I make great resolutions to do the same, but usually come out, as this year—cool weather on hand before the garments.

CLARIBEL.

The enterprising flock-masters, Neiswanger Bros., Osborne, Kas., are reported by their local paper having raised on their ranch on Indian creek a 50-acre patch of Early Amber sugar cane that goes over 20 tons to the acre. It was planted between the 1st and 6th of June, with Union drill, using from $\frac{1}{4}$ to $\frac{3}{4}$ bushels of seed per acre. They are growing this plant exclusively for sheep feed, and will graze the most of it although about 300 tons have been cut and shocked, &c. used in foul weather.

Nearly 2500 head of cattle are being fed in the immediate vicinity of Peabody, Kas.

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.

November 18 and 19—T. W. Harvey, Short-horns, at Fat Stock Show, Chicago.

November 20—Jos. E. Miller, Holsteins, at St. Louis, Mo.

March 18, 1885—A. H. Lackey & Son, Short-horns, Peabody, Kas.

May 20, 1885—Powells & Bennett, Short-horns, Independence, Mo.

Judging Short-horns and Herefords.

Those who visit the fairs are often puzzled to know how the judge is able to select those animals that are most deserving, as the novice in such matters frequently considers the difference between the contestants so small as to be scarcely noticeable. An English authority states that, with Short-horns, a correct judge will always bear in mind that a moderately sized animal, perfectly even, is to be preferred to a much larger one that is uneven, and that no excessive development of one or more parts will compensate for other parts that are dwarfed and meagre. He will also bear in mind that the first essential in a Short-horn is a straight back from shoulder to tail. Then when he comes to the neck he will always know that that of the male requires to be thick at the base, should taper along the sides, and rise on the top a little toward the head. That of the female should be fine and long, and on a plane with the shoulders and the whole of the back. The sides of each animal should be as near the form of the sides of a barrel as possible, the ends of the barrel being the foremost parts of the shoulders and the hindmost parts of the thighs. The legs should not be much crooked, and the head of the male should be strong and massive, covered on the front with long shaggy hair, that of the female tapering, clean and fine. The eyes of both should be prominent, and those of the female very soft and placid. A good judge will always pay great deference to thickness of flesh, and there are cases where a little fault in complexion or outline may be overlooked for that great desirability. The skin in the best breeds will always be found to be soft and springy, moderately thick, and clad with long, bright, silky hair. If there is any doubt about the supremacy of quality, that with the finest hair and most pliable skin along the top of the loins should be placed first. Any dereliction from a gentle curvature of the horn is to be eschewed, and the fashionable color of the horn is yellow and crimson in youth and white in age. The tendency should be in favor of strong horns instead of small ones, as they mark constitution, and as to the mouth, it should always be rather large if it has to feed a capacious frame.

In judging Hereford cattle at breeding shows too little attention is frequently paid to the question of whether the animals brought into the ring are in a healthy breeding condition or not. The judges should first satisfy themselves on this point, especially in the older classes. If they have been fed abnormally fat and cannot walk free and easily, and are bad upon their legs and feet, or even go cramped or crippled, they should be rejected. When judging a bull, look for good masculine character, and a pronounced style and good carriage, that would intimate that he is likely to stamp his characteristics upon his get and prove a good and impressive sire. The head should be well set on—not carried too low and stuck on like a pig's, as some are. It should not be narrow nor too long, but wide between the eyes, which should be full and prominent, yet mild, showing a quiet disposition and aptitude to fatten. He should have a good wide muzzle and

clear nose. Usually a good body follows a good head. Never give a prize to a bull with an effeminate, weak head if another in the class is at all passable, and failing such, withhold the prize. The crest should be well developed, and have a good white mane.

Herefords should have some white on their shoulders, although, of course, its absence is no great point against an animal; a bull should not have narrow crops, for this is a very bad fault, as Herefords are most emphatically a beef breed, and narrow chins are most objectionable where beef is wanted; on the other hand, the narrow chine is a special attribute of the deep milking sorts—for example, the Jerseys. A young bull having good crops, wide between the tops of the shoulder blades, and having a good fore-flank will, even if he is not quite filled up between the shoulders, nearly always "come" in that place as he matures, so that it should not be thought a very great fault if he is slightly deficient there. A good back is a point that should carry a good deal of weight with the judges; a bad-backed one should be put on one side, as most of the cuts of beef worth most per pound come from that part. There is a difference between a low loin and a weak loin; the former may be well covered and packed with flesh and is not such a fault as one that is bare and lean. If an animal has rather prominent hips, and is high on the crup, the loin often looks lower than it really is; as, also, when the ribs are especially well sprung, the hollow behind the shoulder looks more than it really is. These points should be well tested before awarding the order of merit. Long, full hind-quarters, and well developed wide thighs, well let down to the hocks, should score many points, and narrow thighs should always be considered one of the gravest faults. Quality counterbalances a multitude of other faults. An animal that did not handle well should be rejected, as, failing in this they can never feed. Good hair, and plenty of it, is also a great desideratum. Of course, at the summer shows, many animals have cast their coats, but there is always some evidence of what their winter coats are which a practiced eye can tell at once. A beast should stand over plenty of ground and with his legs well outside him, the belly line as close to the ground as possible, without being "tubby." A big bony animal is certainly to be avoided, but a little size as well as quality must be an advantage to all concerned, for "when you have done weighing you have done selling."

In the case of cows and heifers, it is difficult to ignore the fact that they are in breeding condition when they have calves by their side, even though they may be grossly over-fed, but still there should be a limit. It is an objection to an animal being shown as a breeder, if it is in a fit state to be immediately shown at a fat stock show. The cow should have a clean-cut, delicate head, with the same features mentioned above for bulls, but with nice feminine character instead of the bull's masculine one. A "gay" head need not be objected to, provided the horns are not cocked up and turn back ("upturned" horns are very different from "cock" horns.) A bull-like coarse head is the worst kind, as it gives no style and smartness to the animal. Those of a lighter color (not too pale) feed quicker and are usually of better quality. Beauty of form and symmetry should be always considered by the judges as two strong points in favor of the animals competing.

Twenty-five cents will secure the KANSAS FARMER till December 31, next.

A Sheep Ranch in Australia.

Australian shepherds lead a life nearly as patriarchal as a Tartar's. A wild and lonely existence is theirs, and only men of iron physique could undergo it. Two shepherds always chum together, one acting as hut-keeper, while the other is out upon the range. They travel from range to range as the grazing grows poor, and the country is dotted with the rude slab huts they find shelter in. Their fare is of the rudest, consisting of "damper," a sort of bread made of flour and water, baked in the wood embers, mutton and tea. Of late years the luxury of canned meat occasionally falls to their share. Tobacco is their only luxury, and a battle with the fleas which infest their huts, their only rest.

The Australian wool-growers' greatest enemies are the catarrh, the scab, the foot-rot, which is caused by marshy grazing grounds, bad servants who neglect the flocks, and the wild dogs. The latter were once a formidable foe, indeed, but their destructive hordes have been greatly decimated by the hunters, who shot them by thousands, to obtain the bounty offered for their scalps. These dogs will hunt a flock of sheep as systematically as men conduct a drive of deer. They surround and close in on them, rending and devouring all in their path. Great flocks are often stampeded by them, when the sheep run until they drop exhausted, or struggle into some stream and are drowned.

The shepherd's dog is as sagacious and true a friend to his woolly charges as the wild dog is a relentless foe. Sheep-raising has produced in Australia a peculiar breed of dogs, different in many appearances from the European shepherd dog, but akin to it in all good qualities. These dogs seem to know all the sheep in a flock. They will hunt for stragglers miles away from the hut, and either drive them in or watch them, if they happen to be exhausted, until they gather sufficient strength to walk. It is a common thing in traversing the grazing country to come upon one of these noble brutes on guard over a strayed or broken-down sheep, and woe betide the stranger who attempts to lay hands on his helpless protegee.

In addition to the wool crop, the Australians derive a huge revenue from the boiling down of sheep. Boiling down was originally resorted to on the occasion of a panic forty years ago, when sheep could not be sold in the local market. Then the surplus of the herds was reduced to tallow, and a market for that commodity opened in England. Some years after, huge canneries for the preservation of the mutton were started with satisfactory results. Now the sheep-grower makes capital out of the flesh and fat of his flocks, as well as their wool. Another extensive trade is the preparation by salting and smoking of mutton hams, which are used for ship's food throughout the Indian seas.

A sheep station is the center or headquarters of a range. Here the proprietor lives, surrounded by his overseers and storekeepers. In addition to the proprietor's and his subordinates' houses, the station consists of a few shops, some barracks for the shepherds, and paddocks covering hundreds of acres, all fenced and posted as stoutly as can be. The largest buildings at a station are the shearing and sorting sheds, and all the important stations now appear to have huge steam presses for baling the wool. At the smaller stations the hand-press is used. Small sheep owners drive their herds into the large stations and there sell the wool.

This disposition of the wool clip has given existence to a character in the shape of the buyer of wool, who is known among the small growers as the

"wool-worm." The wool-worm will buy a clip while it is yet on the flock, and the improvident sheepmen take advantage of this and pay usurious interest for the accommodation. These wool buyers have the country districted. One never trenches on the other's ground, and one and all are said to be willing to advance money on the clips several years ahead. The result is that many flocks are under perpetual mortgages, and in the end fall into the hands of the usurers, who sell them at once, for they find more profit in buying wool than in raising it.

As the shearing season comes around the flocks are driven to the stations where they belong. Watering carts keep the dust laid, as day after day the woolly legions come marching into the paddocks. If the weather is rainy, they are sheltered in the large "sweating sheds," into which from 2,000 to 3,000 sheep can be packed at a time. When the campaign is ready to open the "yarders" are mustered to duty, which is to keep the shearers supplied with subjects. Then the animals pour into the shearing sheds in a steady stream. They are kept in pens there until sheared, and then turned loose to be marked and penned until they are driven out on the ranges again.

The fleece, having been clipped, is passed to the wool tables, where it is sorted and "skirted," or cleaned of the rough dirt which adheres to it. Australian wool is divided into first, second and third qualities, before it goes to the press.

The laborers at the station work day and night in shearing time. From the proprietor down, they enjoy only the briefest rest. The wool having been pressed, the bales are weighed and marked with the distinguishing marks of the station. The transportation to market, or the nearest railroad station, takes place in huge platform wagons, drawn by six or eight horses or oxen. These wagons carry from thirty to forty bales to a load.

The station fills up with peddlers of all sorts of wares, not forgetting the "sly grogsmen," who is the master of a bar-room on wheels. Between these and the regular shop-keepers, most of the money made by the laborers at the shearing is gotten rid of before they leave.

Remember that warm shelter saves feed.

Young Men!—Read This.

The VOLTAIC BELT Co., of Marshall, Mich., offer to send their celebrated ELECTRO-VOLTAIC BELT and other ELECTRIC APPLIANCES on trial for thirty days, to men (young or old) afflicted with nervous debility, loss of vitality and manhood, and all kindred troubles. Also for rheumatism, neuralgia, paralysis, and many other diseases. Complete restoration to health, vigor and manhood guaranteed. No risk is incurred as thirty days trial is allowed. Write them at once for illustrated pamphlet free.

A very successful exhibition of a steam corn-husking machine was made in New York city some time ago. The unhusked corn is fed to the rollers by hand, passing through two troughs covered with zinc. When it reaches the rollers it is immediately stripped, flat brass springs keeping it in position until the stripping is accomplished. The rollers are so constructed, with springs on each side, as to give ample room for husks or bunches of husks to pass through easily, and, also, on each side of the rollers are combs to clean their teeth and so prevent clogging. Wooden carriers are attached to the machine, which carry the corn to the crib or wagon and the husks in another direction. The inventor claims for the machine that it will strip 125 bushels of corn an hour, while the average quantity stripped by hand is only thirty bushels.

In the Dairy.

About the Care of Calves.

Opinions vary greatly on this subject, but it seems to us that nature's methods are always right. When accident or disease interferes and destroys normal conditions, we do not have natural methods; they are then unnatural. Nature provides milk, fresh, pure milk for the calves, and they ought to have it. It may be better, in the dairy, to keep the calf away from the cow; but when that is done, it should have milk fresh from its mother. It may be taught in that way sooner how to drink. In looking over our old clippings on this subject we find the following, but do not remember where it was first published. The writer is of opinion that "calves can do best when allowed to suck the cow. One cow should raise two calves. They should be suckled or fed three times a day until about seven weeks old; after that twice a day will do. Never allow them to run with the cow. It is much the best plan to never let the calf suck a milch cow. Milk her, and feed the milk while warm to the calf. In about a week it may be mixed with sweet skim milk, about half and half, gradually increasing the latter as the calf grows older. So soon as it shows disposition to eat, supply it with oat meal and bran mixed wet, or the "chop stuff," now ground at most flouring mills, and bran, wetted and mixed in about equal proportions. Either of these feeds will sour in about twelve hours after being mixed; keep it fresh, and wash out the feed box. Oil-cake meal, in very small quantities, mixed with bran and corn meal, is very good. Tie a small bundle of hay before it, and renew when it has picked out the best. A mangel or a few potatoes cut small will be relished and keep the bowels open. Put the calves on pasture as early as possible. Never allow them to run down or become thin in flesh. A small feed of corn meal or shelled corn, oats or "chop stuff" and bran every evening will keep them in good thriving condition. In winter vary their food and keep them warm. See that they have plenty of good water, also salt. Bulls should be rung when six months old, and thereafter kept separate from heifer calves. Plenty of uncut hay, with some corn-fodder or sheaf oats and a little grain feed is best for them in winter.

"Nearly all diseases to which live stock are subject are the result of neglect of the simplest sanitary rules, and may be prevented by the exercise of a little common sense. Never compost manure in a cellar beneath the stable, nor in an adjoining shed. The foul, noisome gases arising from the rotting mass, will poison the air throughout the entire building, and to compel animals to breathe it is the height of folly. Fancy ventilators and clean floors will not remedy the matter. Manure and all decaying matter must be removed to a distance from every part of the building, to keep it fit for live animals. Farmers who neglect these simple precautions need not be surprised if strange and fatal diseases frequently break out among their stock and inflict upon them great loss. The fault will be theirs alone. Never under any circumstances change any kind of stock suddenly from one kind of food to another which they are not accustomed to. Great and often permanent injury may result. Let such changes be gradual. For the treatment of bloat, use a trochar and canula. Every farmer should have them. They are cheap and are often the means of saving the life of stock.

Full directions for use accompany them, and any hardware dealer can supply them.

"When a cow or calf is seen choking, grasp it and feel along the outside of its throat for the hard substance. When found exert vigorous pressure and slide the article up into the mouth. For scours in calves, feed new milk (heated near to the boiling point, and allow to cool sufficiently) with oats, bran and corn meal dry until cured. Heavy milkers are most liable to garget. We prevent it by milking once a day the last month of pregnancy, and feeding cooling, relaxed food. Fomenting the udder once a day with tepid water is a great help. Watch the udders of pregnant cows for indications of garget, and relieve promptly. In three different instances we found it necessary to regularly milk young heifers, of a strain of heavy milkers, nearly a month before dropping their first calf. A neighbor having one of the first strain refused to go 'contrary to nature,' as he termed it, and the animal was ruined. In every case, after the calf has sucked the first time, the udder should be drained of its last drop. This should be done regularly twice a day until the calf takes it all."

Winter Treatment of Milch Cows.

The aim in the treatment of milch cows in winter should be to continue the conditions of summer as nearly as possible. This requires comfortable quarters, not only against the inclemency of the weather, but in all else that relates to the well being of the cow—such as warm stables, but not too warm; ventilation, to control temperature and admit fresh air, but not directly on the animals; floor well littered with fine vegetable material, to absorb fluids and odors, aided by plaster, thus securing a clean, dry, soft bed to lie and stand on; carding; plenty of good water, conveniently obtained; occasional out-door airing and exercise, without rash exposure to cold and wet, getting as much sunlight as possible and avoiding great changes of temperature; kind treatment, making the cow feel at home. Give food to meet her requirements; if in calf, let the nitrogenous element be well represented, and let the feed be largely of a succulent character, to keep in line with the summer diet, such as roots or ensilage, with early-cut clover, well cured. Feed early and late, and a few times during the day, keeping the cow mostly employed with slight feeds between the two principal rations, the night serving for rest. Begin the winter feed early, in order to avoid exposure to inclement weather, and to realize a late fall and early winter harvest of butter, for which a superior price is obtained.

It is a great fault with many farmers to allow their cows the range of the farm, thus getting more exercise than is good for a milch cow, trampling the fields and making muddy paths, while the frost-bitten food that they pick is of reduced benefit, and leaves the fields bare and exposed to the winter's severity. It is an error to suppose that late grass, frost-bitten and bleached, is of more value as feed than for protection and plant food. Leaving the grass unfed is in effect green manuring, without the expense of turning it under.

By thus favoring our fields, we at the same time favor our cows also. By putting them up early requires attention, but pays well, as now the time can be well afforded, and the cows are continued in good condition without break, yielding a continued liberal supply of milk. All rash changes in feed and in treatment should be avoided, and above all, do not intermit the kindness in the least, without which a milch cow will never do her best. There is nothing new in all this, which makes it so much the better, as it has the experience of the most successful dairymen, yielding the largest quantity of the best milk and an increased percentage of butter from it, beside benefitting the cows.

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.

CATTLE.

LOUST RETREAT FARM. Bacon & Campbell, Manchester, St. Louis Co., Mo., breeders of HOLSTEIN CATTLE and PLYMOUTH ROCK FOWLS. Holsteins excel in milk, butter and beef. They are the all-purpose cattle. First-class stock for sale. Plymouth Rocks are the farmer's fowl. Pair, \$3.50; trio, \$5.00; eggs, \$1.50 for 13.

J. M. MARCY & SON, Wakarusa, Shawnee Co., Kas., breeders of Thoroughbred Short-horn cattle of fashionable families. A few yearling bulls and young cows left for spring trade. Correspondence solicited.

BROAD LAWN HERD of Short-horns. Robt. Patton, Hamilton, 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 E. of sharon 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.

WALNUT PARK FARM. Frank Playter, Prop'r. Walnut, Crawford Co., Kas. The largest herd of Short-horn cattle in Southern Kansas. Stock for sale. Correspondence invited.

A. HAMILTON, Butler, Mo., Thoroughbred Gallopers, way cattle, and calves out of Short-horn cows by Gallopers for sale.

HOLSTEIN CATTLE and SHROPSHIRE SHEEP bred and imported by Jos. E. Miller, Ellwood Stock Farms, Belleville, Ill.

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

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

Hereford Cattle.

E. S. SHOCKEY, Early Dawn Hereford Herd, Lawrence, Kas., breeder of Thoroughbred and High-grade Hereford Cattle.

W. C. MCGAVOCK, Franklin, Howard Co., Mo., Breeder of Thoroughbred and High-grade Hereford and Short-horn cattle. 100 head of High-grade Short-horn Heifers for sale.

F. W. SMITH, Woodlandville, Mo., Breeder of Thoroughbred Hereford Cattle. Dictator 1889 heads the herd. 50 Grade Bulls for sale.

CATTLE AND SWINE.

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

W. W. NELSON & SON, Centropolis, Franklin Co., Kas., breed pure-bred Poland-China Swine. Also Short-horn and Jersey Cattle. Stock for sale reasonable.

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

HILLSIDE STOCK FARM. W. W. Waltmire, Carbondale, Kas., breeds Thoroughbred Short-horn Cattle. Recorded Chester-White Swine a specialty.

WOODSIDE STOCK FARM. F. M. Neal, Pleasant Run, Pottawatomie Co., Kas., breeder of Thoroughbred Short-horn cattle, Cotswold sheep, Poland-China and Berkshire hogs. Young stock for sale.

J. E. GUILD, CAPITAL VIEW STOCK FARM. Silver Lake, Kansas. Breeder of THOROUGHBRED SHORT-HORN CATTLE and POLAND-CHINA SWINE. Correspondence solicited.

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.

COTTONWOOD FARM HERDS, J. J. Malis, 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.

SHEEP.

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

C. F. HARDICK & 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.

SAMUEL JEWETT, Independence, Mo., breeder of American or Improved Merino Sheep. Over 300 extra. The very best. Choice stock for sale. Over 300 extra. Catalogues free.

G. B. BOTHWELL, Breckenridge, Mo., has 1,100 Merino rams for sale. 250 of them are registered. His seven best stock rams shear from 27 lbs. to 33 lbs. weigh from 145 lbs to 180 lbs.

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

SHEEP.

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

SWINE.

S. H. TODD, Wakarusa, Ohio, breeder of Recorded S. Premium Chester White Swine and Imported Shropshire Down Sheep. Send for circular with price list and particulars. It pays to get the best.

GEO. W. STONER, La Place, Ill., breeder of representative Duroc Jersey Swine. Superior boar pig for sale.

100 POLAND-CHINA PIGS, from three to six months old, from R-gistered stock, for sale. J. W. Blackford, Bonaparte, Iowa.

A. H. HENDRICKS, Hazel Green, Wis., offers at bed rock prices recorded Jersey Duroc Pigs. Sows bred to order. Write me before you buy.

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.

I. L. WHIPPLE, Ottawa, Kas., breeder of Recorded Poland-China and Red Berkshire swine. Stock for sale at all seasons. Correspondence solicited.

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.

W. M. PLUMMER, Osage City, Kansas, breeder of Recorded Poland-China Swine. Young stock for sale at reasonable rates.

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

POULTRY.

FAIRVIEW POULTRY YARDS. Mrs. G. Taggart, Parsons, Kas., breeder of L. and B. Brahmas, B. Leghorns, Houdans, Plymouth Rocks, Langshans, P. Cochins, G. L. Bantams, Wyandottes and B. B. R. Games. Send for price list.

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

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

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

WAVELAND POULTRY YARDS, Waveland, Shawnee county, Kansas. W. J. McColm, breeder of Light Brahmas, Plymouth Rocks, and Pekin Ducks. Stock for sale now. Eggs for hatching in season; also Buff Cochins eggs.

MISCELLANEOUS.

A. DORSEY & SON, PERRY, ILL., Breeder of Thoroughbred POLAND-CHINA and CHESTER WHITE SWINE, SHROPSHIRE DOWN and MERINO Sheep, and SHORT-HORN CATTLE. Stock for sale.

PIG EXTRICATOR, to aid animals in giving birth. Send for free circular to WM. DULIN, Avoca, Pottawatomie Co., Iowa.

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.

J. G. D. CAMPBELL, Junction City, Kansas, Live Stock Auctioneer. Sales made in any part of the United States. Satisfactory reference given.

Mt. Pleasant Stock Farm Colony, Anderson Co., Kansas.

J. S. HAWES Importer and Breeder of **HEREFORD Cattle.**

I have one of the largest herds of these famous cattle in the country, numbering about 200 head. Many are from the noted English breeders, T. J. Cardwaine, J. B. Green, B. Rogers, W. S. Powell, Warren Evans and P. Turner. The bulls in service are "FORTUNE," sweepstakes bull with five of his get at Kansas State Fairs 1882 and 1883; Imp. "Lord Wilton" bull "SIR EVELYN" own brother to "Sir Bartle Frere;" Imp. "DAUPHIN 19th," half brother to T. L. Miller Co.'s "Dauphin 18th;" and "THE GROVE 4th," by "The Grove 3d."

To parties wishing to start a Herd I will give very low figures. Write or come.

THE LINWOOD HERD **SHORT-HORN CATTLE**

IMP. BARON VICTOR

W. A. HARRIS, Linwood, Kansas, The herd is composed of VICTORIAS, VIOLETS, LAVENDERS, BEAUFORTS, SECRETS, and others from the celebrated herd of A. Cruickshank, Stittion, Aberdeenshire, Scotland. GOLDEN DROPS, and URY, descended from the renowned herd of S. Campbell, Kinellar, Aberdeenshire, Scotland. Also YOUNG MARYS, YOUNG PHYLLIS, LADY ELIZABETH, 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.

The KANSAS FARMER till New Year for 25 cents.

EVILS OF DRAM-SELLING.

A man named Human was convicted on twenty-one counts for violating the prohibitory liquor law. The following is the address of Judge Martin, delivered in passing sentence:

MR. HUMAN: I am certainly glad to hear you say in response to the question that the law makes it my duty to propound to you, that the business in which you were engaged prior to the commencement of this prosecution, and resulting in the offenses of which you have been convicted, was not a fit business for you to be engaged in.

To this candid admission you might, with great propriety, have added, that it was not a fit business for any one to be connected with, or engaged in; nor could it in the nature of things bring peace, happiness or prosperity to you, or any one else; upon the contrary, its fruits and records are all bitterness, degradation and ruin.

I say to you frankly, and truly, that I sincerely regret that you are in your present embarrassed and distressed condition, but I know of no one who stands chargeable with any blame in producing this result, except yourself. When this action was first commenced against you in this court, I then in a spirit of perfect disinterested kindness, advised you to see the County Attorney and make some arrangement with him that would enable you to get rid of your troubles at the earliest possible moment, and in a manner the most advantageous for you.

If you had acted upon my advice, I am sure that you could and would have escaped your present trouble, greatly to your interest, but you preferred to act upon the counsel of others, and the result is what you might have reasonably expected under the circumstances.

I regret your neglect of my counsel, for the further reason, that I am informed that you are not naturally a bad man, but have rather been the victim of unwise counsels, and unprofitable friendships; and this you substantially admit. But now we must accept the situation as we find it, and act upon the facts that are before us, and be governed by the circumstances surrounding us; and however much I may regret your present misfortunes, it is impossible for me to relieve you from the penalties imposed by law, for the offenses of which you have been convicted. The law is absolute in its demands, and must be observed and obeyed by all good citizens, and particularly by those public officers who are charged with the duty of its administration.

Not only for your benefit, but for the benefit of, and as a warning to, others who may be inclined to engage in the business which has led to your present troubles, I think I may properly make some suggestions at this time respecting this traffic; the effect and influence of which suggestions I hope may not be without good results.

For more than twenty years I have had ample opportunities for observing the working and effect of the business of selling intoxicating liquors, and I have not been able to discover a single feature, circumstance, or result that can commend it to the favorable consideration of any decent, respectable, or thoughtful man; and in this conclusion I think that you and all others will agree with me. It cannot even challenge the admiration or approval of ordinarily bad men. I cannot conceive of any business or occupation more thoroughly demoralizing in its tendencies and effects, or more destructive of public morals, public order and public decency, than the business of selling intoxicating liquors. I cannot perceive a solitary benefit or advantage to be derived from it by a single human being. I cannot imagine a blessing or benefit of any kind that it brings or contributes to the welfare of a community. It brings moral and social death to those who engage in it, as well as those who patronize and sustain it. From its very nature, it brings you into contact with murderers, thieves, robbers, gamblers, drunkards, and every vicious element and class in society. That such associations can elevate or develop a man's character intellectually, socially, or morally, is simply impossible. That such associations will inevitably and always drag others down to the level of its own baseness and degradation, is absolutely certain, and under such circumstances and with this common knowledge which all men must possess, I am utterly unable to understand how it is possi-

ble for any man, with any sense of decency, or any appreciation of manhood, or any sentiment of honor, or any one having any hopes or aspirations for respectable social, or moral standing in the community, or having any regard for the confidence and respect for his fellow men, can reconcile himself to the idea of becoming a common vender of intoxicating liquors. It seems to me that to engage in such a business, is to deliberately crush and banish from the heart forever, every honorable sentiment, every hope, every ambition, and every element of character that men generally value, as being useful and beneficial to the world. It blights and destroys men's intellectual powers, and thus it makes our insane, idiots, and imbeciles. It deadens every sentiment of morality, decency, and honor, and thus men become debauched, corrupt, vicious, dishonest, and destitute of all sense of shame, and of every obligation of family relationship, friendship and citizenship.

It begets recklessness, carelessness, and an utter indifference to, and disregard of, the rights, the interests and the happiness of others. It invites, encourages, and necessarily develops all that is base, degrading and dangerous in men, and destructive of good government, good order, and common decency. It is a nursery for the development and growth of all those wicked and corrupt practices which lead to the crimes of gambling (which after all is but another name for different forms of stealing), theft, robbery, arson, perjury, murder, and every sort of public crime, social wrong and private indecency; in other words, it is a school house for the development and cultivation of every species of crime, and an institution for the preparation of men, women and children for the gutter, the poor-house, the insane asylum, the reform schools, the county jail, the penitentiary, and finally the gallows. But this is not all; and while it makes men idiots and imbeciles by robbing them of their reason, and makes drunkards, destroys all self-respect, blights and blasts all manly aspirations, it also despoils men of their property, and makes homeless and hungry wives and children, who shiver and starve in winter, and starve and burn in summer; and after all, these are but a few of the evil consequences and bad results out of the long list of crimes and miseries that necessarily flow from the business of trafficking in intoxicating liquors. It may be possible that an honest man of ordinary intelligence may engage in such a business, but to me it seems impossible. A man who willfully engages in it, deliberately defies the law and at once proclaims himself an enemy to public order, public decency, and every interest, public and private, calculated to benefit the State, and that makes for the welfare of humanity. He purposely ignores and contemptuously disregards every interest that men hold to be useful and good, and robs himself of every consideration or plea for mercy or forbearance in his behalf.

He enters the business with his eyes wide open, with the statute book set before him. He reads it and knows that he is engaged in a business that the law forbids. He is fully advised of the risks and dangers he assumes. He is bound to recognize the fact that he is engaged in the business of making criminals and unfortunates of every class and degree. He is thoroughly advised that he is filling the land with widows and orphans; the charitable institutions of the country with paupers and other unfortunates; the jails and reform schools with petty criminals; and the penitentiaries with felons of every degree; and yet, with a seared conscience, and an utter indifference to all these calamities, and for the mean and base purpose of making a few paltry dollars, that will in the end burn his pockets, and bring disgrace and ruin upon him, he deliberately embarks in the disgraceful traffic. The pretended excuse that the law on the subject of intoxicating liquors is harsh, and in many respects unjust, is no sort of defense or excuse. In this country the laws are made by the people, and our theory of government is that the majority must rule; and when the properly constituted authorities of the State have determined what the law is, it then becomes the duty of every citizen to obey it, until such time as its objectionable features can be removed in a lawful and orderly way; and it is particularly the duty of those who are charged with its administration to see to it that the law, whatever it may be, is reasonably, justly and fairly enforced, and the

public officer who fails or refuses to perform this duty, is simply guilty of perjury; and it is the further duty of such officers to give the moral support of their offices in favor of the observance and enforcement of the constitution and laws of the State, and in favor of good order and decency in the community, in order that the citizens may be properly protected in the enjoyment of life, liberty, and property, and the public officer who neglects to perform this duty, ceases to be worthy of public confidence, and forfeits all claim to the support of decent, thoughtful and law-abiding citizens. It seems to me that for any public officer to throw the moral influence of his official position, or to use it in such a manner as to encourage lawlessness and violence, and to give encouragement and power to the criminal and vicious elements in society, is to become a party to the crimes that may be committed by reason of his misconduct. The idea that only such laws as you or I may think to be just ones, shall be obeyed, is a betrayal of a lamentable ignorance of the very objects and purposes of government. If one man be permitted to set up his individual judgment as to the propriety of obeying any particular law, we must accord to every other citizen the same right with respect to any other law or class of laws, and the inevitable result must be a condition of lawlessness and anarchy. Under such circumstances every man becomes a law unto himself and the strong will subordinate the rights and the interests of the weak to his own pleasure, and thus we have an end of civil government, and the lives, liberties, and property of the citizens is absolutely without protection. This is a proposition so plain and simple, that it can be readily understood and appreciated by every man, and appeals to the judgment, wisdom, justice and patriotism of every citizen, to stand by the constitution and laws of the land, as being the surest, safest, and best protection for all these great interests.

Russell County Notes.

Kansas Farmer:

The larger part of the threshing in this county is finished; I think the average is not far from 28 bushels per acre. The quality is a little below an average for this section, although some fields are as good as ever was raised in this county. The deterioration in quality is entirely due to the rye which has not been cleaned out from the seed or the ground. For years the result is that the farmer gets a very low price for his crop, when by a careful selection of seed, rotation of crops, and a thorough tillage of the ground in corn or cane he would raise larger crops and realize more per bushel. The experiment of cutting rye before the kernel forms, for feed, seems to be a decided success. I would like to have some information in regard to the best manner of curing cane for feed, as the old way of shocking like corn is too expensive to work well on a large scale, or mow with a machine and cure like hay has been a failure in this section; where the cane is large it would seem as if there might be a machine invented to cut and bind it. If any one has made a success of putting it up at a reasonable expense I would like to hear from them. There has been a large quantity raised in this section this year.

Winter grain is looking well, but the acreage is small compared with last year. But very little rye has been sown. Oats was the best we have had in six years. Potatoes and all kinds of vegetables are plenty. Timber has made a good growth this year. From improvements in the shape of granaries, stables, and cattle-sheds, being made, the outlook for farming is good, and stock is looking well and stockmen are in good spirits. A few cases of blackleg are reported among calves on rye pasture. Sheep are in fine condition for winter. The political outlook is badly mixed; the prohibitionists complain that the conventions were packed in the interest of whisky, and judging from the nominees they have some reason. The Republicans are jubilant over the recent elections and the Democrats are working like beavers for Glick, especially to get the control of the Legislature.

RUSSELL COUNTY FARMER.

The Poultry Keeper, published at Chicago, Ill., has achieved a wonderful success. In a little over six months its circulation has increased to thirty thousand actual subscribers. It is the paper for those interested in profitable pursuit of poultry raising. Read their advertisement in this issue.

The Argument in Favor of Mixed Husbandry.

The prevailing low price of wheat seems likely to influence the supply of this cereal for some years to come, and to such an extent as to seriously affect the interests of the consumers and producers. We see in our exchanges the frequent exclamation: "Wheat at the present price is not a profitable crop; the wise farmer will do well to cease its cultivation and devote his time and acres to the cultivation of corn and the rearing of live stock." The frequent reiteration of these statements by farmers of our acquaintance, and the greatly diminished area of wheat sown, evident to the most casual observer, convinces us that this doctrine is having a very wide application.

In adopting this course, we are confident farmers are going counter to their own, and certainly to the best interests of the country at large. The two facts which operate most powerfully against the farmer are the uncertainty of crops and the instability of prices. If the farmer was always certain to raise good crops when he had made the necessary provision for their growth, and if he was sure of paying prices for these crops when raised, then farming would be the safest and most profitable occupation known to man. Now, in actual fact, wheat and all the great staples grown through a series of say ten years do give an average yield which is sold at a profitable price. The farmer, then, needs only to cultivate wheat through a series of years to make the good crops compensate for the bad, and the high prices more than overbalance the losses sustained during the prevalence of low prices. In short, the persistent uniform growth of a crop through a series of years removes, so far as that crop is concerned, the element of uncertainty both as to yield and prices. On the other hand, the farmer who only grows a crop when it seems likely to be profitable, only makes unprofitable crops more certain, because he is sure to see future disasters in the growth of a crop which is now unprofitable.

The argument becomes stronger if we consider the entire list of crops and products grown in a locality. Every year some one crop—and usually a majority of the crops grown—give good yields, which fetch profitable prices, and these profitable crops will each year more than compensate for any losses sustained by other crops. In other words, the farmer who grows a variety of crops and products through a series of years, is fully insured against loss by either short crops or low prices. The "wheat farmers" and "corn farmers," the specialists, are the agriculturists who fail in business, or are constantly selling out in order to join the great throng that "go west," or go elsewhere—it matters not much where.

There are other advantages in varied husbandry that every practical man will recognize. No farmer can afford to purchase flour for his family, or pork or potatoes or apples, or any of the necessities or luxuries of life that his farm will produce. The farmer, besides being a "producer," is a great consumer; and it is important to him that he purchase his goods at "first cost," which he will probably not do if he does not raise them.

The farmer who practices mixed husbandry reaps other important advantages; his stock consume the straw, fodder and coarse grains which, without the stock, would be a total loss, or sold at the low values of crude products, and the labors of the farm can only be properly distributed throughout the year where varied interests demand attention in regular order.

The farmer who "drops" wheat or corn or hogs or cattle because prices are low, and equally the farmer who "goes into" these crops or products because they happen to bring high prices, intensifies most of the dangers that beset the farmer's calling, a fact which has especial force in a State like our own Kansas.—Prof. Shelton.

Fun, Facts and Fiction.

SATURDAY EVENING PLATGE!

A PAPER FOR THE PEOPLE.

Devoted to Society, Lodge, Amusement and Dramatic News, good Literature, etc. Will be published especially for the State of Kansas. Terms, \$2 a year; \$1 for six months. Specimen copy free.

Address M. O. FRIST & SON, Pubs., Topeka, Kansas. Clubbed with the KANSAS FARMER for \$2.75.

The Value of a Clover Sod.

It has been truly said that the introduction of clover marked a new era in agriculture and wholly changed the system of work. But it is questionable if farmers even yet recognize the value of this plant. They say that clover is a great help to the land, and they talk of plowing it under as a valuable means of improving the soil, and yet many will remark with astonishment "the waste of good fodder" that is committed when a farmer is seen in the spring or fall plowing under what would make at least a ton of hay were it cut and cured. But although it is a good practice to feed all the crops and the fodder that can be grown to stock, and get the profit from feeding, and use the manures made as a second profit, yet, in the majority of cases, it may well be questioned if it is not a better and more profitable way to plow under the luxuriant growth of clover than to spend the labor in cutting it, converting it into hay, storing it, feeding it, handling the manure, and hauling and spreading it upon the land. These operations call for a great deal of labor, and this must obviously cost more than it comes to. It is very certain that we cannot by any means get more out of the clover than there is in it, in the sense of its manurial value. We do not, by handling it two or three times, add anything to its value in this way. And by turning it under we get all the value there is in it or can be brought out of it. Then for all the labor of handling it, and the manure made from it, there is the profit from feeding it as the sole recompense. It may be that this is sometimes worth having; it is certain that sometimes it is not, and that it is a losing business. Each farmer must therefore figure this out for himself, and it is so probable that there will be a loss rather than a gain that, as a rule, the practice of plowing in the spring or fall growth of clover may be followed as the best under any circumstances, and that it should be avoided only in cases where it is very clear that it is better so to do.

What then is gained by plowing-in a clover sod? There are three advantages—first, the mechanical effects upon the soil; second, the addition of a certain quantity of fertilizing matter; and third, the chemical effects upon the soil.

Just now it is very important to consider each of these very closely, because there is a popular opinion prevalent that the soil is actually improved by cutting and removing this second growth instead of plowing it under. This belief has been taught by agricultural chemists and by writers upon agriculture, and it has been widely adopted on the strength of the authority. But it is wise to "prove all things," that is, to discuss and weigh the facts, evidences and beliefs offered, before one accepts any proposition that appears to be opposed to common sense. And this should be done in disregard of the popular estimate of any person who may propound any such theory. It is our privilege to differ in belief with any person, and to take nothing for granted merely because this or that expert may declare his opinion that it is so. There are really no facts given to support the prevalent belief in the effects of clover upon the soil, while common sense and reason are opposed to it. This will appear as the three points above mentioned are made clear.

First.—There are some certain mechanical effects produced upon the soil by the plowing-in of a clover sod, and these effects are greater in proportion to the bulk of the vegetable matter turned under. A quantity of green clover which would make a ton of hay is equal to four tons of the green matter.

The roots and stubble of such a growth of clover will amount to an equal bulk, or four tons more. Sixteen thousand pounds, or eight tons of green matter, is equivalent to 100 pounds upon every square rod of ground. When this is evenly distributed, as it is by plowing a growing crop under, in alternate layers of vegetable matter, and four, five or six inches of soil, as the furrows may be made, the soil is greatly improved in texture; a light, sandy loam is bound together and consolidated by this fibrous matter intermingled with it, and a heavy clay is loosened, opened, and made more porous. Either soil is far better prepared for its occupation by a mass of roots, and is better enabled to hold the moisture requisite for the growth of a crop.

Second.—A quantity of clover like that plowed in contributes to the soil a large amount of the most valuable fertilizing matter. The eight tons of clover leaves, stems and roots contain about 112 pounds of nitrogen, twenty-six pounds of phosphoric acid, fifteen pounds of sulphuric acid, sixty pounds of carbonic acid, 100 pounds of lime, sixty-seven pounds of potash, and about sixty pounds of soda, chlorine, magnesia, iron, etc. A ton of ordinary farm manure contains nine pounds of nitrogen, ten pounds of potash, and four pounds of phosphoric acid. Therefore, the eight tons of clover add to the soil as much nitrogen as twelve and a half tons of manure, and about an equal quantity of potash and phosphoric acid with seven tons of manure. There is a considerable balance in favor of the clover, the greater, as nitrogen is the most valuable and costly of all the needed elements of fertility. But there is a deeper view to be taken of this considerable addition made to the fertility of the soil by the clover, and that is, it has been procured from sources where no other crop could procure it, and that is from a great depth, comparatively, in the subsoil. Clover is a deep-rooted plant. It has a thick, fusiform top root, which penetrates to a great depth, and then sends out a multitude of feeders, which gather nutriment from a much larger space and depth of soil than any other plant. Furthermore, it has the habit of passing through its roots and leaves an enormous quantity of water, equal to 15,574 pounds per day for an acre, or in 100 days about 777 tons. This is seven times as much as is required or used by a wheat crop, whose roots occupy much less space and remain near the surface. It is thus seen why clover needs these long and far reaching roots, viz., to procure this copious supply of water, which could not be procured near the surface.

There is still another point to be noticed and which we must not omit. This is that while the clover-plant draws up and transpires so large a quantity of water, yet the mineral matter held in solution and upon which the plant feeds is by no means proportionately large. It is, therefore, able to exist and grow in poorer soil than any other crop and to subsist upon much weaker food. It is as though an animal could live and thrive and grow upon milk diluted four times with water, and thus exist upon a very poor quality of food; or as though it could increase and grow fat upon straw, eating and digesting four times as much for the same effect as another could with the best hay and meal. This is the most important point to know and consider, because it explains very clearly why clover is so beneficial to soils, and why a farmer, by plowing in a clover sod, can grow a good crop of corn and another of oats, and still leave a remainder for the following small grain crop, or why, after a clover sod plowed in, in the summer, he can grow a very

much larger crop of wheat than he could in any other way. And this increase of fertility is not exhaustive to the soil in any sense, because it is brought from a hitherto unexplored portion of it, that is inaccessible to any other plant.

And just here we might diverge, perhaps usefully, for a moment to notice how impossible it is really to exhaust the soil. The soil is inexhaustible. We might as well hope to pump the ocean dry, or reduce atmospheric space to a vacuum, as to wholly exhaust the soil. One acre of soil eighteen inches deep weighs 8,000,000 pounds or 4,000 tons. This soil contains at a moderate estimate 12,000 pounds or six tons of phosphoric acid, 10,000 pounds or five tons of nitrogen, and from 20,000 to 80,000 pounds or ten to forty tons of potash. If no organic matter were ever to be added to the soil in the shape of manure or waste from crops or weeds, the land might be cultivated for centuries before it would be exhausted eighteen inches deep. So that "exhaustion of the soil" is a term used in a comparative sense wholly, and is not an absolute or possible conception.

So when a farmer grows a crop of clover he reaches below this upper stratum of surface soil and draws from the subsoil a large quantity of plant food, that is otherwise beyond his reach, and brings it to the surface. And as the plant food in the subsoil is not in as available or soluble a condition as that at the surface, it comes up in a very weak solution—so much so that no other plant but clover could take in enough of it to support its existence; but clover can do this, and hence its invaluable service to the farmer.

But we must hasten to notice the third effect, viz., the chemical effect of a clover sod upon the soil. On looking back we may see that an ordinary clover sod contains a notable quantity of sulphuric acid and carbonic acid. As it decomposes—which it does very rapidly when plowed under at this season—these acids are set free and begin to act upon the soil. And we may also in this connection take into account the considerable quantity of the deeper roots of the clover which are left in the soil to decay below the reach of the plow. These acids set upon the mineral matter of the soil and decompose it. The carbonic acid has the property of dissolving in water and conferring upon it the ability to dissolve silica, lime, and other minerals, while sulphuric acid combines with lime and sets free phosphoric acid which may have been in combination with it. Again, the porosity given to the soil by the mass of clover opens it to the admission of air, and in its decay produces heat, and these influences greatly accelerate and intensify whatever chemical action may be started by the decay of the clover.

In summing up the advantages which may be derived from plowing-in a clover sod—and we may say at the same time a crop of clover grown for this purpose—the following are the chief points to be noted:

1. Clover, from its habits of growth, may be produced upon soils too poor for any other crop, because it gathers its food from sources beyond the reach of any other crop.
2. Clover gathers from the soil more potash, lime, phosphoric acid, and other mineral matters, and also several times more nitrogen, than any other crop.
3. Clover, in its decay, sets free from the soil a considerable quantity of mineral matter, and also gathers from the atmosphere, during its growth, a considerable quantity of nitrogen.
4. All these accumulations are brought to the surface, where they are made available for the use of succeeding crops.
5. That in this manner clover affects

a sensible and valuable improvement of the soil, both directly by its actual contributions to it, as well as indirectly, by its favorable chemical action upon it.

6. That these contributions of a clover crop to the fertility of the soil are not only in an immediately available form for the use of succeeding crops, but that they are additional to the very considerable, and indeed equally valuable, contribution in the form of fodder for the feeding of stock, which is returned in great part to the soil in the form of manure.—*Henry Stewart in the Times.*

Soldiers in the Capitol.

The first troops which arrived at Washington in April, 1861, were quartered in the Capitol. The Pennsylvanians were billeted in the committee rooms and offices of the House, the Representative Hall being reserved for the seventh regiment. Armed men and the rude implements of carnage massed in these marble corridors and gorgeous rooms, awakened me to a deep sense of the power and the abandon of military rule. On the luxurious damask and brocade covered sofas lay stretched men who probably never before reposed in such magnificence. Over the tapestrial carpet of the floor were strewn in profusion and disorder the suddenly accumulated stores of the commissary's department—here a slab of bacon, there a quarter of beef, or a saddle of mutton, or a Virginia ham, a sea-biscuit, tin drinking cups, papers of pepper, bags of salt and cans of vinegar filling up the interstices, and rounding up the pyramid. Upon the rich and costly bronze ornaments, upon the gas chandeliers, and upon the gilt brackets that held back the silk and lace curtains, were festooned knapsack and belt, cartridge-box and bayonet-scarabard, the smaller implements and surroundings of a soldier. In the halls and corridors the men were being drilled and taught the expertness of carnage. In broad contrast to the dark and polished Tennessee marble wainscoting, were the blue uniforms and rough bearing of the men. Upon the rich encaustic tilings fell with a dull, heavy sound the iron-shod butts of musket and rifle. The arched and frescoed ceiling echoed and re-echoed the ringing clatter of the ramrod, as the recruits perfected themselves in the manual of loading their pieces. In the Senate chamber were quartered the Sixth Massachusetts Regiment. Upon the cushioned sofas of the galleries of the Senate chamber the men found excellent couches. When they had concluded breakfast in the morning, and the guard for the day being detailed, the remainder of the command were at their ease. In the Vice President's chair sat Col. Jones, the commandant of the force, a frank, free hearted, soldierly looking man. The clerk's desk was occupied by the adjutant and his assistants, engaged in making up the muster roll, returns and requisitions incident to active service. The privates were engaged at the Senators' desks writing letters. All the statuary in the halls of the Capitol, and in the old rotunda, had been boxed, to preserve it from injury through carelessness. The pictures in the panels had also been faced over with heavy planking, which secured them from harm. The porticos of the Capitol building were barricaded to the height of about eight feet. The iron plates for the new dome were used for the breastworks between the marble columns. Behind these were placed barrels of cement, piles of stone and timber, forming an impenetrable barrier, in the rear of which the troops could take shelter in case of an attack. It seemed a strange contradiction to see the workmen engaged in the construction of the portico, going on with their labor of laying the foundation, amid thousands of armed men; the click of the chisel, the stroke of the hammer, and the ring of the trowel, blending with the word of command, the challenge of the guard, and the tramp of the battalions drilling in the corridors. So reluctant was civilization to recede before the advancing desolation of war, that the artisan lingered to enrich with his skill the parapet and dome that the morrow may see levelled to their foundations. Within musket range of the outposts of the troops were even then a score of men chiseling in marble the flowers and clusters of grape and ivy wreaths, with which the finished portions of the Capitol were so profusely decorated.

The Home Circle.

Life's Journey.

As we speed out of Youth's sunny station,
The track seems to shine in the light;
But it suddenly shoots over chasms,
And sinks into tunnels of night;
And the hearts that were brave in the morn-
ing

Are filled with repinings and fears
As they pause at the City of Sorrow,
Or pass through the Valley of Tears.

But the path for this perilous railway
The hand of the Master has made;
With all its discomforts and dangers
We need not be sad or afraid.
Roads leading from dark into darkness,
Roads plunging from gloom to despair,
Wind out thro' the tunnels of midnight
To fields that are blooming and fair.

Tho' the rocks and their shadows surround
us,

Tho' we catch not one gleam of the day,
Above us fair cities are laughing
And dipping white feet in some bay;
And always—eternal—forever,
Down over the hills in the West,
The last final end of our journey,
There lies the great Station of Rest.

'Tis the grand central point of all railways;
All roads cluster here where they end;
'Tis the final resort of all tourists;
All rival lines meet here and blend.
All tickets, or mile-books, or passes,
If stolen, or begged for, or bought,
On whatever road or division,
Will bring you at last to this spot.

If you pause at the city of Trouble,
Or wait in the Valley of Tears,
Be patient—the train will move onward,
And sweep down the track of the years.
Wherever the place is you seek for,
Whatever your aim or your quest,
You shall come at the last with rejoicing
To the beautiful Station of Rest.

—Ella Wheeler Wilcox.

Home, and What It Should Be.

BY D. R. McDOWELL, MANHATTAN, KAS.

"To Adam, Paradise was home. To the good among his descendants, home is Paradise." To my mind this is almost true, or at least our homes are nearer like Paradise than anywhere else. I once heard a young girl say, "anywhere rather than stay at home." What a dreary, miserable place a home must be when its members are willing to go anywhere rather than spend their leisure hours there. That young girl's home was a cheerless, neglected place. Inside the house not very clean, carpetless floors, no comforts, no tastes of any kind shown; just so that there was enough to eat and drink was about all they seemed to live for. Outside, the house and farm had the same neglected, go-to-pieces look, just as though the family had all died off and things were taking care of themselves. The father was educated and intelligent; could talk upon any subject, quote Shakespeare very readily, and had ample means to live comfortably, but he chose to live in this way. His family were bright, fine looking children, and like everything else grew up without any government or restraint. Consequently they were wild and troublesome. Instead of being desirable neighbors, they were only subjects for scandal. A family like they were, properly trained, would have been a power for good, but as it was they were just the opposite.

Why should not every farmer take a pride in having his farm neat and in order, devoting especial attention to the grounds about his home? Let all unsightly places be removed, a tree planted here, a shrub there, and a vine somewhere else, to make a pretty place out of an ugly one; and as much space as can be spared to a nice green-house. A house in such surroundings, be it ever so plain, will be kept neat and cozy looking. The birds will gather there, and how delightful it is when you wake in the morning to hear them singing on all sides. The order and quiet beauty of such a place could not help but make the owners happy and contented and to feel that there was no place like home. Let a farmer take his odd minutes to fix up his yard and grounds, and I believe in a little while the pleasure he would realize from it would amply repay

him. Then the benefit it would be to his children and his neighbors would in time be incalculable. The children would soon learn to like to see things looking nice, would lend a helping hand, become more industrious, their tastes more refined, their love for home would be stronger, and they would care less to go elsewhere for pleasure and amusement. His neighbors would see how much better his place looked and would gradually "follow suit." It would have the same effect to a certain extent upon his family, and that family upon his neighbors. Take the most despised and thriftless neighbor we have, and if he shows but a little disposition to be orderly, we respect him that much for it, and he cannot help but respect himself and be a better man. Would it not be a pretty idea to have each child plant a tree as a memorial when they go out to another home or are taken to that long home from which there is no return. Would it not make the homestead more sacred to the father and mother when they grow old and their families are scattered? Near my old home in Pittsburg, Pa., a Mr. Kelly lived and owned a farm that was worth as many thousand dollars as there were acres, and five or six farms out in the country. I believe he was trained and brought up and lived his long life upon the best one. He had a very plain old stone house that I never remember seeing a fence about and only a few old apple trees near it. He sold land at a thousand dollars an acre, elegant residences were built and handsome grounds laid out. But Mr. Kelly lived on in the same old way. His farms were allowed to get in the same tumble-down condition and of course did not bring him in anything. Would not sell his land to poor men for small homes, opposed the building of new school houses and every improvement that would be to the advantage of the community. While all other places around grew and prospered, Wilkinsburg was kept at a standstill and looked as though it was dead. His family had about the same treatment. His oldest daughter ran off with a worthless fellow and was cast off for years by her father. The second daughter graduated and was a worthy girl, but when she returned from school her home was so cheerless and unlike those around that she refused to visit and was never known outside the family circle. His only son was a large, fine looking man, with ordinary abilities, but under his father's influence and training learned one vice after another, and every one knew "young Jim Kelly"—a man not for the society of any but the lowest, and when yet a young man went down to his grave a vile drunkard. By the father's queer ways and bad management he lost all his property. It was said to be a very touching, sad scene in the court room, when the last piece of land was taken from him. The old man said, "They have taken my last piece of property," and wept. Jane G. Swissheim wrote a letter to the public urging the buying of the old home for the father and daughters to end their days in. As soon as the property passed into other hands it was sold into lots. A hundred houses went up in two years, and a fine new school building that was full to overflowing. Does any one suppose for a moment that if Mr. Kelly had lived as his neighbors did, improved his property, made his home the cheerful, beautiful place his means would have allowed, that he would not have been a happier man, his family respected, his son an honored, honorable and useful citizen, with a worthy family to keep the name alive?

We have all a certain amount of influence; but what a blessing few have such a wide field as this man had.

Moral Influence of Good Cooking.

Savory dishes, serving to vary the monotony of the poor man's ordinary fare, afford considerable moral as well as physical advantage. An experience of my own will illustrate. When wandering alone through Norway, I lost the track in crossing the Kyolen fjeld, struggled on for twenty-three hours without food or rest, and arrived in sorry plight at Lom, a very wild region. After a few hours' rest, I pushed on to a still wilder region, and continued thus to the great Jostedal table-land, an unbroken glacier of five hundred square miles; then descended the Jostedal itself to its opening on the Sogne fjord—five days of extreme hardship, with no other food than very coarse oat-cake, and bilberries gathered on the way,

varied on one occasion with the luxury of two raw turnips. Then I reached a comparatively luxurious station, where ham and eggs and claret were obtainable. The first glass of claret produced an effect that alarmed me—a craving for more and for stronger drink, that was almost irresistible. I finished a bottle of St. Julien, and nothing but a violent effort of will prevented me from ordering brandy. I attribute this to the exhaustion consequent upon the excessive work and insufficient unsavory food of the previous five days; have made many subsequent observations on the victims of alcohol, and have no doubt that overwork and scanty, tasteless food are the primary source of the craving for strong drink that so largely prevails with such deplorable results among the class that is the most exposed to such privation. The practical inference is, that speech-making, pl-dge-signing, and blue-ribbon missions can only effect temporary results, unless supplemented by satisfying the natural appetite of hungry people by supplies of food that is not only nutritious, but savory and varied. Such food need be no more expensive than that which is commonly eaten, but it must be better cooked.—*Popular Science Monthly.*

Growth and Exercise.

"Exercising" is using the bones or muscles, in such a way as to increase their form and strength. Health and vigorous growth demand that every organ of the body should be used at regular periods. The brain needs to be properly exercised by thought, the lungs by full respiration, the stomach by regular digestion, the intestines by proper peristaltic action, and all the larger and smaller glands by such food and activity that aids them in executing their proper duties. We usually speak only of exercising the bones and muscles. But their activity implies the activity of every organ and tissue of the body. Even the action of the involuntary muscles are included—those that are not under the control of the will, the heart and lungs are active, when the bones and muscles are. The process of forming blood and forcing it through the system, the burning in the system of effete materials, driving the waste from the body and so make room for fresh and vital materials are promoted by proper exercise of the bones and muscles. In this line of thought we clearly see that without exercise, regular and sufficient, the body must be impaired. Perfect quiet, as the man must keep, who has broken his thigh, never fosters strength or growth. Confined by splints and other fixtures for six weeks, or more, he finds at last, when these are all removed, that he can not move his leg. He can not control it, as he did before its fracture. He must learn to walk. In these facts we learn, that constantly using our bones and muscles enables us to control them and use them as we will.

We refer to moderate exercise as tending to promote growth and strength. Excesses of all sorts check and lessen them. One result of moderate activity is hastening, more or less, the circulation of the blood, and so exposing a greater amount of it, in any given time, to the vital influences of the air inhaled. This relieves the system of a larger amount of waste and makes room for nourishment. The waste, the vapor and carbonic acid, we exhale, is the result of activity in the various tissues of the body. It is a matter of necessity to exhale this waste, otherwise it would accumulate and impair health and shorten life. This term "moderate" should be well considered, for excessive and deficient exercise are nearly equally injurious. Exercise not only increases the circulation of the blood, hastens the exposure of it to the oxygen of the air and burns the waste, but also hurries it from the system. The more we eat, the greater the need of exertion to burn up and remove the waste. The apostle was right. "If a man does not work, he should not eat."

Moderate exercise, then, makes the muscles grow; gives them an increase of size and firmness and enables us to control them. We see these facts illustrated in many ways, but notably in the gymnast, violinist, pianist, blacksmith, laborer, etc. They gain strength and activity by degrees, and increase their several exercises in a moderate way, realizing that excessive exertion of muscle only weakens and exhausts them. Moderate exercise also increases the desire for food, the fuel that not only warms the

body, but gives it bulk, strength and vigor, may impair the appetite for nicknacks, but enlarges the desire for meats and fats and so repels feebleness and consumption. Any one may observe that a sedentary life and lack of exercise destroys a relish for meats and other substantial articles of food, and so results in feebleness and disease.

We have now but very little interest in boys. They are naturally inclined to run, jump and exercise in various ways. They are ordinarily stout and hearty. But we have an interest in the girls, because they are the neglected and suffering ones in nearly every community. Mothers often are at fault. Many mothers are hardly excusable for neglecting to inform themselves on the needs of girlhood. Our American mothers are culpable. Their logic is false and injurious. Our daughters are feeble and weakly, therefore they must not exert themselves. Their feebleness is the very reason why they should. They certainly can never gain strength by indolence and laziness. Exercising as they can, without exhaustion, will nearly always promote their growth and health. If girls of average strength begin at five years of age to exercise in some proper way, and regularly every day, until they reach their twentieth year, they would have the usual growth, the robust health, the fresh complexions of the English girls, who are fond of long walks and active sports in the open air, and still have time enough to cultivate their intellectual powers. It has been shown by experience that those girls who devote two to three hours a day in some active exercises and sports, make better progress in their studies and acquire greater mental strength than those who devote every hour of every day and half the hours of night in dreaming over useless studies.—C. H. Allen, M. D., in *Western Rural*.

Female Thumbs.

The female thumb is said to be an important index to the female character. Women with large thumbs are held by phrenologists, physiognomists, etc., to be more than ordinarily intelligent—what are called sensible women; while women with small thumbs are regarded as romantic. According to certain authors, who profess to have been observers, a woman's hand is more indicative of a woman's character than her face, as the latter is to a certain extent, under the control of temporary emotions, or of the will, whereas the former is a fact which exists for any one who understands it to profit by. Women with square hands and small thumbs are said to make good housewives and gentle wives. This sort of women will make any man happy who is fortunate enough to win them. They are not at all romantic, but they are what is better, thoroughly domestic. Women with long thumbs have tempers of their own, and generally a long tongue.

There is a hint in this to a lover. Let him, the first time he seizes hold of his mistress' hand, examine, under some pretext or another, her thumb, and if it be large, let him make up his mind as soon as he becomes a married man, he will have to be very careful. Again if a young man finds that his lady love has a large palm, with one-shaped fingers and a small thumb, let him thank his stars—for in that case, she is susceptible to tenderness, easily flattered, very easily talked into or out of anything, and readily managed. But if she is a woman with a square hand, well proportioned and only a tolerably developed thumb, then she is either one of two distinct classes of women—a practical female who will stand no nonsense, or she is a designing female—a woman who cannot be duped, or a woman who will dupe him.

I ask not wealth, but power to take
And use the things I have aright;
Not years, but wisdom that shall make
My life a profit and delight.

I ask not that for me the plan,
Of good and ill be set aside;
But that the common lot of man
Be nobly borne, and glorified.

40 Lovellst Chromo Cards you ever saw. 40 styles with name 10 cents. O. CARD CO., Yellow Springs, Ohio.

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To any reader of this paper who will agree to show our goods and try to influence sales among friends we will send post paid two full-size Ladies' Gossamer Rubber Waterproof Wearing Apparel as samples, provided you cut this out and return with 25 cents to pay postage, etc. WARREN MANUFACTURING CO. 9 Warren St. N. Y.

The Young Folks.

Things That Never Die.

The pure, the bright, the beautiful,
That stirred our hearts in youth;
The impulse to a wordless prayer,
The dreams of love and truth—
The longing after something lost,
The spirit's yearning cry,
The strivings after better hopes—
These things can never die.

The timid hand stretched forth to aid
A brother in his need,
The kindly word in grief's dark hour
That proves a friend indeed—
The plea for mercy, softly breathed,
When justice threatened high,
The sorrow of a contrite heart—
These things shall never die.

The memory of a clasping hand,
The pressure of a kiss,
And all the trifles sweet and frail
That make up life's first bliss,
If with a firm, unchanging faith,
And holy trust and high,
Those hands have clasped and lips have met,
These things shall never die.

The cruel and the bitter word
That wounded as it fell,
The chilling want of sympathy
We feel but never tell—
The hard repulse that chills the heart
Whose hopes were bounding high,
In an unfading record kept—
These things shall never die.

Let nothing pass, for every hand
Must find some work to do;
Lose not a chance to waken Love—
Be firm and just and true.
So shall a light that cannot fade
Beam on thee from on high,
And angels' voices say to thee—
These things shall never die.

—All the Year Round.

UNDER THE SEA.

A Naturalist as a Diver—Curious Sightings at the Bottom of the Ocean.

[From the Cincinnati Enquirer.]

"Making a collection for the museum?" asked an *Enquirer* writer of a scientific man who was overhauling a curious looking armor.

"Not exactly," was the reply. "I'm repairing my diving armor. I have taken up diving to study the habits of some animals under water. I have made fishes rather a specialty, and last fall it occurred to me as I was going South that as the water was extremely clear I could use a diver's armor to advantage, so I got a complete outfit and had very good results. The water there is so clear that you can see sixty or seventy feet without any difficulty, and for a number of years I have used a boat with a glass bottom. I bought a small sloop that had a well in her to hold fish, took out the bottom and inserted several panes of heavy glass, and there I had a perfect window in the bottom of the boat, so that even in the roughest weather I could lie and look down through it, and see the smallest objects on the bottom and so make my collections. By this means I made some valuable finds of rare shells and corals, and perhaps you know that there are numbers of small fish that follow boats, keeping close up under the bottom. These I could see and watch their motions. Curiously enough, they did not appear to see me, and I would watch their every movement, but this only made me eager to get a nearer view, and so I began to think of the diver's armor, and I bought this and had the helmet altered so that I could see perfectly well, and as I was not going to visit any wrecks there was no danger of breakage, and I was perfectly safe. I made my first experiment on the Florida reef.

AMONG THE FISHES.

"One of the most remarkable features of this life under water is the fact that the fishes were not at all afraid of me, but swam about when I did not move, evidently taking me for an old wreck; and when I raised my arm they would dart away for a few moments, then suddenly return, and were as curious as some people, their great eyes staring, ever open, presenting oftentimes a ludicrous spectacle. I have even had fishes rub up against my armor, as you often see

them against the bottom, probably to rid themselves of some obnoxious parasite. The way I made my observations of fish and their movements was to recline upon the bottom among the coral and have a supply of crawfish bait that they are very fond of, and in this way I often had a perfect school of fish hovering over me, and so could observe their every movement. Did you ever watch a fish in the water? Take the common sunfish. As it poises in mid-water you will see the side or pectoral fins moving in a kind of side motion, just the same movement that you intuitively try to make with your hands when you try to 'tread' water or keep yourself motionless; in short, the pectoral fins are the arms of the fish, its fore limbs. In the flying fish the arm-fins are wings; in some of the sculpins there are regular fingers by which the fish crawls over the bottom; in the *Periophthalmus* they are used to walk on dry land." "Hold on, professor," cried a listener, "we've heard of the fish out of the frying-pan, but draw the line on their leaving the water." "It's no fish yarn," replied the scientist with a laugh, "but actual fact, and, indeed, I have observed it myself.

GAMES OF FISHES.

"In observations of this kind," continued the speaker, "you notice things that cannot even be seen in a good aquarium, as there the fish are under certain restraint. While I have been lying low, literally, with all these fishes hovering over me, I have seen performances that were exactly akin to our games and sports. When a lot of young fishes were about they were continually engaged in games of chase. Now one would dart, and, followed by half a dozen others, the pursued dodging here and there behind bits of coral until some other fish in turn seemed to attract attention, and the entire crowd would rush pell-mell after. One day I saw two fishes, called smelts, approach each other in a solemn way, open their mouths as wide as possible until their lips met. Then they would slowly draw or back off and then repeat the operation. You may call it what you like, but judging from our standpoint I assumed they were kissing each other. They were certainly not fighting, as I repeatedly saw encounters, and they were always characterized by rapidity of motion and display of temper natural to the occasion.

IN A CORAL CITY.

"One of the most remarkable sights that I observed," continued the amateur diver, "were the coral beds. From a boat they present nothing unusual—a brown mass of pointed stems or branches; but one day I had the boat placed on the edge of a channel, and gradually walked down into it until I attained the bottom, in about thirty-five or forty feet of water, and I tell you the scene was impressive. I seemed to be in the streets of a city. The bottom upon which I stood was a pure white sand, hard and firm, and perfectly free of coral; but on either side rose a perpendicular wall of the branch coral nearly forty feet high, all the points extending directly outward or toward me, and presenting a magnificent unbroken surface of a rich olive-brown hue.

"Hidden and only noticed when the coral was broken away, were myriads of sea eggs or Echini of all shapes and colors. Some were jet black with spines like needles. Another kind had short spines, and were albinos, or perfectly white. They are eaten in some parts of Italy, and considered a great luxury; but they are not used in Florida. They have no lobsters there," continued the naturalist, "but their place is taken by what they call the crazy fish. It looks like a lobster, only is a yellow hue, and instead of having two large claws, has two enormous whips or feelers. This great mass of coral was perfectly undermined by these creatures, their whips projecting and waving to and fro continually.

A SPANISH GUN.

"I must have walked one hundred yards through this channel, when suddenly I noticed a black object on the bottom about twenty feet ahead. At first I thought it was a shark or a turtle, and, charging bayonets with my pike or iron spear that I carried, I moved on and found that it was something that had evidently fallen from above. It was completely overgrown with seaweed and covered with incrusting corals, and it was nearly half an hour before I had cleared away the sand, during which time I had to go to the surface. I took down a shovel,

however, and soon found that my find was a cannon, and, by its shape, of foreign make; and so it proved, as a few days later I took out ropes and a derrick on a scow and lifted it to the surface. We found that it was an old Spanish gun, and after the coral was scraped off the arms of Spain were plainly seen. It had been captured probably by pirates a long time ago, and lost overboard here in some way, or a vessel had been sunk and entirely gone to pieces.

PHOTOGRAPHING UNDER WATER.

"I was so impressed," continued the speaker, "with the wonders of this world under the sea that I began to devise some method of reproducing it, and I made some attempts at photography under water. My appliances were crude, and it can hardly be called a success; but I proved that it is possible, and I haven't the slightest doubt but that in a few years a photographer can go to the bottom and take negatives of wrecks to show the actual position, etc. Not only this, but fishes and all marine animals can be reproduced exactly. How can it be done? Well, that is my secret, but of course the electric light will be a prominent feature of such an undertaking."

"Did you use the electric light in your studies?" asked some one.

"Certainly," was the reply. "I made a number of descents by night.

VISITING A WRECK.

In this way I could catch a great many fishes that could not be obtained in any other. I carried a small metal-handled net with me and secured a number of forms that, though I have not compared them yet, are, I am sure, new to science. One of the last trips that I made on the reef was to an old wreck that had been lying there for perhaps fifty years. I went down to it at night, and when I turned on the light I found myself in a curious place. The hull of the vessel was seemingly complete, but not a single part of the surface but what was pierced with holes made by the ship-worm (teredo). I attempted to step on the wood, and, though looking solid, my weighted foot sank into it like paper, and with a slight push I threw over a large portion of the old hulk. The worms had eaten into the wood and lined their holes with a limy secretion, so that these tubes were all there was to hold the structure together; the wood had disappeared. In the hold great masses of branch coral were growing out of a pile that was once the cargo." "It might have been a treasure-ship," suggested a listener. "Yes, it might," replied the scientist, "but it wasn't and to make sure I overhauled her well, and the pile I spoke of, as far as I could make out, was made up of ballast—old rock, probably."

"How about that fish that crawls out on dry land?" asked some one.

"The fish," continued the naturalist, "is a little fellow that looks very much like what we call a sculpin, although it has none of the barbels and curious appendages that characterize those fish. I first noticed them in the Spice islands when I was there in 1872. I was walking by the shore one day at low tide where the beach was formed of dark mud and weed-covered rocks, when my companion said, pointing to some small objects that were hopping along shore near the water: 'Isn't it rather queer for frogs to go with salt water?' 'It's so queer that I never heard of it before,' I replied; 'perhaps it's something new.' So we determined to find out what they were, and, taking off our shoes, we waded in and along the beach so as to drive the supposed frogs ashore. But all at once one started right up under my eyes and gave a hop of about a foot, and to my astonishment it was a fish; and so I announced to my friend who was behind. He wouldn't believe me; but when he came up, there the little creature was, high and dry, resting on a stone, with its head somewhat raised, on its prominent pectoral fins. I made a jump for it, and my friend did the same, but away it went, hopping just like a toad, and for several moments there was a race between man and fish. We soon hemmed it in, however, and I have it in my cabinet now. The side fins are almost arms, and are strong and powerful and on them the fish rests and jumps. In Australia some years ago some geologist found some fossil bones that were pronounced to belong to a large fish. In 1876 some one discovered the identical fish alive.

"The way they did so is somewhat curious. They were on a hunting trip up the

country, and one night camped near a small stream. In the middle of the night one of the party was awakened by a curious barking sound, and, thinking it might be some wild animal after their horses, he slipped on his clothes, took a rifle and went out. The noise came at regular intervals from the river below, and, taking a narrow path, he started after it. The moon was bright, and when he got down to the level of the water he heard the bark, and saw a large glistening object, and then saw it leap along or flounder through the grass. Upon this he fired, and to his amazement, found that he had shot a fish. The shot awakened the rest, and the creature was brought into camp. It was about six feet long, had a small head and enormous scales, while the body ended not in a fin, but in a point. It was found that they breathed both air and water with perfect ease, and that when hungry the great fish, which was a vegetable feeder, would come to the shore, expel the air that it held in its air-bladder, thus making the barking sound, and wander over the flats in search of food.

THE PELICAN FISH.

"The other day they dredged a fish that was all head, and its mouth had a pouch large enough to contain seven or eight bodies of its own size. It had no eyes or fins, and its gills were more or less upon the inside. It was taken from water a mile or more deep. Another fish found, and related to the cod, had a stomach that was so like rubber that it could swallow fishes over three times its own size. Its jaws worked exactly like those of a snake, and in swallowing this monster pulled itself over its prey like a glove."

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The estimated decrease of the public debt for October is \$8,250,000.

Hon. Hugh McCullough is the newly appointed Secretary of the United States Treasury.

Ex-Governor Harvey has gone to make Virginia his future home. Ill health causes him to make the change.

A butcher named Henry Hardwike died at Humboldt, Kas., from the effects of drinking strychnine, which he mistook for whisky.

One thousand Chinese sailed from San Francisco bound for Hong Kong, China, last week, taking with them a half million dollars in coin.

Boston and New England passengers should bear in mind that The Wabash is the only line running a through sleeper from St. Louis to Boston.

Reliable advertisers will find that the KANSAS FARMER has no peer as an advertising medium. The rates are reasonable and our motto is, justice to all.

Now, that the elections are over, let the subscriptions come pouring in from every postoffice in the State. All that we ask is to give the KANSAS FARMER one year's trial.

The grain receivers' association of the Chicago Board of Trade have changed the lower grade of grain known as "rejected" wheat to No. 4; high mixed corn is made No. 2, and new high mixed No. 3.

Miss Annie Brindle, Fredonia, Kas., kindly remembers the FARMER by sending in a club of subscribers this week. Let the good work go on. Such favors are warmly appreciated and remembered at this office.

What is the exact condition of the sheep industry in Kansas and what are the future prospects? It is generally understood that this business has been more or less depressed this season. Let us hear from the sheepmen.

The Fat Stock Show.

In another portion of this paper is given a careful report of the essential points of the second annual Fat Stock Show held at Kansas City last week. The show was on the whole a creditable one and reflects credit to the managers for their effort in producing an exposition of one of the great resources of the new West. It is an institution which should be patronized and visited by every general farmer and stock raiser because these shows are directly in the interest of these persons. The great breeders and feeders are always to be found at such places, the very persons who least need the benefits to be derived therefrom. We regret to say that during the two preceding years there has been but a light attendance of those who most need these exhibitions and should study the great object there presented. It is true that careful reports of these shows are published, but seeing is better than reading. Those who once attend a show of this kind are very apt to be present at the succeeding ones.

The Short-horn breeders this year profited by the experience gained last year and made an exhibit that did credit to the breed and far surpassed their show last year. The Herefords had also a representative showing but the Polled cattle show did not compare as a whole with last year, although there was one or two remarkably good animals shown. The breeders, however, saw their mistake and will profit by it, and make an exhibit that will do the breed credit in the future. The Aberdeen-Angus breeders felt very jubilant in capturing the sweepstakes on the dressed carcass.

The lame feature of this Fat Stock Show was the small exhibit of swine. The premiums offered were certainly liberal, yet the classes were scarcely filled. The peculiar favorable location of Kansas City, with its immense packing houses and great hog market, should be of itself sufficient inducement to make it worth while for a number of feeders and breeders to make a representative showing that is compatible with the immense resources of the country in this respect. There is no class of live stock in the West that has made such general improvement as swine, or even kept pace with it. We would like to see an exhibition next year that would properly represent this industry.

The KANSAS FARMER is in full accord with the idea published in the *Times* of making the proposed consolidated exhibit as set forth by the prime movers in setting on foot and perfecting the success made in the brief period of two years, are encouraged, and will continue in the good work by presenting next year a stronger attraction. There is being put into shape by the earnest workers a proposition to make the future exhibits at this point a grand national live stock show. Formerly breeding cattle have only been exhibited at State, Inter-State and county fairs. It is the purpose of these gentlemen to make this a show for breeding, fat stock, beef and range cattle. The amount of premiums to be offered will be large. By this method it is expected that good results will follow from the fact that the interested stockmen can see the dam, sire, and products upon the grounds. The idea perfected, will add to the zeal of the breeders of the country and will stimulate those who raise beef animals to show not only the fat animals but those that produce them. The directors and officers of the association are already taking the proper methods to bring this matter prominently before those deeply interested in the animal industry of the West. When the details are arranged, it will be heralded to the country that at Kansas City, the gate-

way to the vast beef producing Western country, will be held the first and only Consolidated National Live Stock Show.

Light and Heat.

It is not our purpose in this short article to discuss the different theories of light and heat, but only to state a few of their effects on vegetable and animal life.

There are two kinds of light and heat, natural, or that reflected by the sun, and artificial, or that produced by the combustion of wood and coal.

Light is always attended with heat, and yet they differ materially in their effects; but heat at all temperatures does not produce light; a piece of iron may be hot and yet not be of sufficient temperature to reflect light.

In this climate, the bud, the tree and the seed sleep during the winter season; the heat of the sun is not intense enough to keep them awake; but in springtime it arouses into activity their slumbering energies.

Rays of light, as well as heat, differ in their directness or refrangibility with the different seasons of the year. This is the result of the position of the earth with respect to the sun. In the winter season the rays are very oblique, in the spring more direct, in the summer still more direct, and in autumn the directness is a medium between spring and summer. As the rays of light and heat differ in obliquity they differ in their effects upon animated nature. In spring and summer the heat and light would not ripen autumn fruit, but with the aid of moisture germinate the seed, develop the buds, and clothe all nature in verdure and beauty; but the autumnal rays give coloring, solidity and flavor to the fruit.

The element in nature called carbon is a storehouse for artificial heat. Wood and coal and all combustible substances are composed principally of carbon; a certain degree of heat applied to these substances with the aid of the oxygen of the air will separate the carbon from the earthy substances with which it is combined.

By this disintegration a chemical change takes place, the carbon is changed into carbonic acid gas and the heat the carbon had absorbed from the sun while the wood was growing is now liberated or set free for us to enjoy and utilize.

The great scientist, Stephenson, termed coal bottled sunshine, and the same may be said of cayenne pepper and all vegetable substances from which heat can be evolved. Heat is life, cold is death, and a certain degree of heat with sufficient moisture will develop seed and produce growth; but the growth, without the assistance of light, will be puny and sickly. Plant a potato in the cellar, give it good soil and sufficient moisture, and it will grow, but it will be pale, feeble and fruitless. Light gives strength, vigor and health to all animated nature.

The successful farmer plows his ground in the springtime not merely that he may get soil enough to cover his corn, but he plows it deep and often, that the rays of the sun when it falls upon the surface may not be reflected back again into the air, but can penetrate easily to the roots. Light and heat are natural elements given us by a wise Creator. The intelligent farmer utilizes them. He seeks or makes good soil, and if the rain and dews fail to produce moisture sufficient, he stirs the soil often in his corn and potato fields; by so doing he opens up more mouths to absorb larger quantities of these natural elements; these reward him for his toil. With the aid of capillary attraction they draw up to the roots the moisture that is stored away in the lower

strata of the soil; and the three elements combined, working together, controlled by the hands of the skillful farmer, will evolve that which will soon bring comfort and wealth.

All forms of animal and vegetable life require and seek light and heat, the lower each is in its order the less it requires. A seed planted in soil and covered with stones will in time germinate and grow, but the little tendril will wind its way through the crevices of the rocks until it finds the light.

A fish may be a fathom deep in the ocean, but it soon seeks the surface, not for air, because it breathes the air enveloped in the water, but for the exhilarating effects of the sunlight.

Light and heat are essential not only to life and growth in the human race, but also to health; they are a panacea for many of the ills and pains prevailing among the human family. Their curative properties were observed fifty years ago by a French chemist and physician. He says heat with its accompaniment, light, is a pure excitant which plays an important part in producing and enjoying good health—a fluid imponderable, which, if permitted, will pervade, strengthen, renew, vivify and beautify the human body.

Artificial heat has not the strength to penetrate through our windows to the outside; but glass to God's sunlight and heat is but little obstruction. Was it not intended to be around us, over us, and to live with us, to strengthen and cheer us? But at what expense and pains do busy housewives, especially in cities, prevent the benign rays from penetrating their dwellings. The fear of faded colors in carpets, hangings and other upholstery, deprives our apartments of a healthy influence from the great source of light and heat. And because it is fashionable to be pale or a sickly white, the silk parasol saves the complexion of our ladies at the expense of their health and vigor. Some one has said, and is it not true, that the wives and daughters of our reading and successful farmers are, on an average, as intelligent as the ladies who have always lived in our cities? But why are our country ladies as a rule more vigorous, ruddy, healthy and active? Is it not that that they are not afraid of the pure summer sunlight or ashamed of its coloring effects.

It is reported that the Hessian fly has attacked the wheat in portions of Jefferson county. The *Independent* says: "There was some damage done in a few spots in the south part of the county last year and the year before, but nothing to amount to anything. The fly is a new thing in Kansas, but we presume we will hear from the pest, as the farmers have in States east of us."

Prof. Snow's weather report for October states that the mean temperature was higher than that of any previous October except in 1879. The frosts have been several days later than the average. The entire rainfall for the ten months has been 40.34 inches, which is 9.33 above the average for the same month in the preceding sixteen years.

Wilbur F. Story, the famous proprietor of the *Chicago Times*, died October 27. He was one of the most persistent and constant workers of the editorial profession and one of the most successful newspaper men of the country. He was born December 19, 1819.

There is a large amount of broomcorn in the State which is being held by the producers for better prices. The crop is good this season and the quality of the brush excellent. The farmers of Osborne county would like to see more buyers in that locality.

Inter-State Short-horn Sale.

Special correspondence KANSAS FARMER.

One year ago, during the Kansas City Fat Stock Show, the members of the Inter-State Short-horn Breeders' Association determined that a representative Short-horn sale should be made at Kansas City during the Fat Stock Show this year, and to that end a number of the leading breeders of Kansas City each contributed from one to five of their best cattle.

The sale took place at the new sale pavilion at River View Park, last Tuesday and Wednesday, during the Fat Stock Show. The attendance was very large and the bidding spirited. The cattle were in excellent condition, and it was the opinion of all that a better lot of Short-horns were never before offered at public sale at Kansas City. Col. Muir had the honor of doing the auctioneer work, and W. L. Harding & Son were the secretaries. The sale passed off pleasantly and was a pronounced success, although some of the animals catalogued could well have been left out to the credit of the breed. Col. Muir offered an elegant silver pitcher to the breeder who would make the highest average on any three animals of his own breeding. The prize was captured by C. E. Leonard, Bell Air, Mo.

The averages made by the different breeders who had cattle in the sale, is as follows: Col. W. A. Harris, Linwood, Kas., \$678; C. E. Leonard, Bell Air, Mo., \$582; A. J. Powell, Independence, Mo., \$508; S. C. Duncan, Smithville, Mo., \$395; W. T. Clay, Plattsburg, Mo., \$442; Dr. Robt. Patton, Hamlin, Kas., \$147.50; H. C. Duncan, Osborn, Mo., \$512.50; U. P. Bennett & Son, Lee's Summit, Mo., \$202; B. F. Winn, Edgerton, Mo., \$291; J. E. Guild, Silver Lake, Kas., \$251; R. T. Raymore, Liberty, Mo., \$195; Dr. W. H. H. Cundiff, Pleasant Hill, Mo., \$105; J. H. Wagner, Pleasant Hill, Mo., \$127; J. Powell & Son, Independence, Mo., \$174; A. H. Lackey & Son, Peabody, Kas., \$547; W. A. Powell, Lee's Summit, Mo., \$202; S. E. Ward & Son, Westport, Mo., \$197.50; A. J. Powell, Independence, Mo., \$437; R. L. Raymond, Liberty, Mo., \$191; J. T. Smith, Independence, Mo., \$195; J. H. Parker, Columbia, Mo., \$256; A. H. Craven, Liberty, Mo., \$202; Powell Bros., Lee's Summit, Mo., \$235; W. W. Hubble, Trenton, Mo., \$130.

The general average made for sixty females was \$308.25, for twenty bulls \$303.75; eighty Short-horns making an average of \$307. The following is a detailed report of the sale:

Rose 7th and c.c., 6 years old, sold to J. L. Consolver, Lee's Summit, Mo., \$1030
 Loudon Duchess of Bourbon Place, 17 months, W. Z. Darr & Son, Carrollton, Mo., 600
 2d Josephine of Clinton, 33 months, Jas. Biggerstaff, Plattsburg, Mo., 590
 Violet's Valentine, 20 months, J. G. Cowan & Son, New Point, Mo., 530
 Angelica 20th, 5 years, Henry Blakesley, Peabody, Kas., 300
 Roxana's Duchess and b. c., 6 years, Col. W. A. Harris, Linwood, Kas., 190
 Mary Best of Maple Hill, 18 months, Robinson & Leftwich, Easton, Mo., 525
 Elena 6th, 13 months, C. P. Broughton, Lee's Summit, Mo., 150
 Royal Charnier 9th, 22 months, W. Z. Darr & Son, 495
 Princess Beauty 3d, 4 years, R. B. Griffith, Osborn, Mo., 150
 Star of Walnut Grove 1st, 6 years, Robinson & Leftwich, 170
 Mary's Duke of Sharon, 18 months, G. C. Blackwood, Liberty, Mo., 195
 Rose of Sharon 15th, 15 months, Ed Stevenson, 105
 Oneida Phyllis, 3 years, Jas. Biggerstaff, Mayflower 24th, 7 years, Robinson & Leftwich, 120
 Bampton's Pride, 2 years, Henry Blakesley, Peabody, Kas., 1000
 Miss Chilton, 19 months, G. L. Christman, Independence, Mo., 190
 May 12th, 22 months, A. H. Lackey & Son, Peabody, Kas., 200
 Buttercup, 12 months, S. C. Duncan, Smithville, Mo., 195
 Julia, 5 years, J. W. Mosby, Liberty, Mo., 270
 Mazurka Belle 3d, 8 years, J. W. Bowman, Kansas City, 220
 Beauty's Constance, 26 months, B. O. Cowan, New Point, Mo., 110
 Master Bates, 16 months, Robinson & Leftwich, 250
 Baron of Jackson, 12 months, U. P. Bennett & Son, Lee's Summit, Mo., 65
 Rose Belle Walnut 4th, 2 years, J. N. Payne, Plattsburg, Mo., 220
 3d Duke of Sharon, 15 months, J. C. Sappington, Arrow Rock, Mo., 195
 3d Countess of Airdrie, 2 years, same, Grand Duke of Barrington 3d, 3 years, Capt. E. B. Millet, Brookville, Kas., 1000
 Sir Cleveland, 12 months, W. G. Anderson, Ochiltree, Kas., 200
 Lou Ellen's Rose, 18 months, J. W. Mosby, 255

Jessamine 2d, J. M. Payne, 160
 May Rose, 2 years, J. C. Sappington, 300
 Kitty Clover, 3 years, R. T. Bass, Wilder, Kas., 175
 Airdrie of Sharon, 17 months, Jno. Barrett, Plattsburg, Mo., 170
 6th Duke of Springbranch, 2 years, Johnson & Williams, Silver Lake, Kas., 160
 Loudon Duchess of Clinton, 3 years, John Barrett, 295
 6th Royal of Ravenswood, 4 years, Ed Stevenson, 810
 Louan of Bourbon Place 5th, 4 years, S. C. Duncan, 220
 5th Oxford of Barrington of Broadlawn, 19 months, C. S. Eichholtz, Wichita, 100
 Daisy 8th, 2 years, F. C. Harris, Sturgeon, Mo., 210
 May Rose 20th, 18 months, W. G. Anderson, 250
 Model Maggie, 2 years, F. C. Harris, 230
 The Baronet, same, 500
 Princess Beauty 4th, 3 years, Robinson & Son, Carrollton, Mo., 230
 Duke of Cedarview, 15 months, J. B. McAfee, Topeka, 150
 Mayflower 38th, 2 years, Johnson & Williams, 155
 Ruby 7th, 3 years, W. C. Buckingham, Florence, Kas., 125
 Rose of Burley, 8 years, A. H. Craven, Liberty, Mo., 150
 2d Duke of Sharon, 20 months, J. G. Morse, Guilford, Kas., 105
 5th Duke of Springbranch, 8 months, D. F. Risk, Weston, Mo., 150
 3d Miss Leslie of Maple Hill, 20 months, A. H. Craven, 500
 Rose 4th, 7 years, A. P. Powell, Lee's Summit, Mo., 810
 Arabella's Beauty, 3 years, Henry Blakesley, 500
 Imp. Carnation 5th, 4 years, W. C. Buckingham, 160
 Hudson Duke of Sideview 2d, 3 years, H. D. Ayers, Breckenridge, Mo., 200
 Redbird 4th, 20 months, S. C. Duncan, 250
 Adella 2d of Shiloh, 22 months, Robinson & Son, 65
 Wild Eyes Walnut Geneva, 17 months, L. D. Wortham, West Line, Mo., 150
 Linwood Victoria, 2 years, Samuel Steinmetz, Steinmetz, Mo., 1005
 2d Duke of Maple Hill, 2 years, P. L. Morse, 400
 12th Airdrie of Rosewood, 13 months, Robinson & Son, 170
 Avarilla, 4 years, F. C. Harris, 110
 6th Duchess of Ravenswood, 5 years, Henry Blakesley, 1000
 Catharine Sharon, 4 years, Robinson & Son, 330
 Duke of Jackson, 19 months, C. M. Gifford & Son, 180
 Missouri Queen, 3 years, Robinson & Leftwich, 250
 Belinda, 7 years, Robinson & Son, 380
 Annie of Elmwood, 2 years, Clint Tillery, Liberty, Mo., 225
 Imp. Luster 24th, 5 years, F. C. Harris, 360
 9th Airdrie of Rosewood, 15 months, C. D. Goode, Seneca, Kas., 140
 Pride of Springbranch, 5 years, U. P. Bennett & Son, 435
 Lou Ellen 3d, 4 years, same, 300
 4th Gift of Locust Lawn, 2 years, S. C. Duncan, 225
 Lady Leonard 6th, 16 months, J. N. Payne, 200
 Julep, 5 years, Robinson & Son, 105
 Jennie, 22 months, F. C. Harris, 225
 Ada 2d of Maple Hill, 7 years, H. C. Duncan, Osborn, Mo., 220
 Beauty 4th, 22 months, F. C. Harris, 130

HEATH.

Important Associations.

The following important meetings of a national character will be held at Chicago during the American Fat Stock Show:

American South Down Breeders' Association, Sherman House, 7:30 p. m., Tuesday, Nov. 11.

National Norman Horse Association, at the Grand Pacific hotel, 7:30 p. m., Wednesday, Nov. 12.

American Clydesdale Association, at the Grand Pacific, 7:30 p. m., Thursday, Nov. 13.

American Stock Breeders' Association, second annual meeting, at the Grand Pacific, Thursday and Friday, Nov. 13 and 14.

American Hereford Cattle Breeders' Association, at the Sherman House, 8 p. m., Friday, Nov. 14.

Holstein Breeders' Association, at Grand Pacific, 7 p. m., Friday, Nov. 14.

Illinois Short-horn Breeders' Association, at the Grand Pacific, 7:30 p. m., Friday, Nov. 14.

National Swine Breeders' Association, at the Sherman House, 10 a. m., Tuesday, Nov. 18.

American Cotswold Association, at the Sherman House, 7:30 p. m., Tuesday, Nov. 18.

American Shropshire Down Association, at the Grand Pacific, 10 a. m., Tuesday, Nov. 18.

American Short-horn Breeders' Association, Grand Pacific, 7:30 p. m., Wednesday, Nov. 19.

American Aberdeen-Angus Association, at the Grand Pacific, 7:30 p. m., Wednesday, Nov. 19.

Gossip About Stock.

The Holstein Breeders' convention is to be held Nov. 14, and not 17, as we stated in our recent notice.

A public sale of imported Holstein cattle will be held at St. Joseph, Mo., Nov. 14. See ad. on page 16.

The Short-horn sale of A. S. Bryan, advertised to take place at Topeka, has been postponed indefinitely.

Frank R. Shaw, of Salina, intends making an exhibit of Clydesdale horses at the World's Fair at New Orleans.

W. Guy McCandess, Cottonwood Falls, Kas., this week received five imported Cotswold sheep from the herd of J. G. Snell & Son, Edmonton, Canada.

J. G. Otis, Shawnee county, lately purchased a pure-bred Holstein bull, Topeka. The animal may be seen on Elmwood Dairy Farm, southeast of the city of Topeka.

Col. Sawyer made a public sale of Herefords for the Hon. W. B. Ives, of Canada, at Kansas City, Nov. 1, and made an average of \$424 for 31 heifers, and \$300 each for 17 bulls.

Twenty-four young imported Hereford bulls were sold at Kansas City last week by public sale, making an average of \$295. They were the property of T. J. Lewis, Odebolt, Iowa.

Col. J. E. Bruce, Peabody, the live livestock salesman, has started a Short-horn herd. He has sold about 2000 Short-horns and grades at public sales this season, making good averages.

Messrs. G. S. Miller and J. P. Hall, of Emporia, and Geo. P. Harrop, Manhattan, recently purchased some pure-bred Holstein cows from the Iowa association represented by Thomas B. Wales, Jr., Secretary.

Breeders of Berkshires are extending congratulations to that eminent breeder, A. W. Rollins, Manhattan, not only on account of his peerless Berkshires, but what is better for his late acquisition—a new wife.

Col. Muir made the public sale of Short-horns at Kansas City, Nov. 30, for S. E. Ward & Son, making an average of \$159 for 39 head. At the same time, W. T. Hearne, Lee's Summit, Mo., sold 15 head at an average of but \$50 each.

Several farmers whose hogs have been affected with cholera in Shawnee and adjoining counties, tried the new remedy advertised by Isaac L. Masters, Topeka, and report that it effected a cure. It is called La Masters New Cholera Remedy.

Ed. T. Shaffer, Fulton, Kas., wishes it understood that he was not competing for the sweepstakes on draft horses at the adjourned fair held at Mound City. The report only intended mentioning him as a breeder of Linn county, and not an exhibitor at the time.

Porter Moore, Parsons, Kas., has quite an establishment of English Shire horses and Holstein cattle at that place. Last week he had at Grant's stables, Kansas City, a car load of these horses that attracted considerable attention and favorable comments from visitors at the Fat Stock show.

Last week at Kansas City, the Galloway breeders held a preliminary meeting to appoint delegates to the national meeting held at Chicago next week. They also appointed delegates to the cattlemen's convention at St. Louis, the 17th inst. They decided to make a better showing for their breed at the next Fat Stock Show, and each breeder pledged to prepare a few animals each.

At a meeting of the Inter-State Short-horn Breeders' Association at Kansas City last week, Dr. Cressey, a noted veterinarian of Connecticut, made an address, which was received with enthusiasm. Among other things he stated that the allied interests of the Short-horn breeders of Kansas and Missouri represented \$10,000,000. At the East we have pleuro-pneumonia, at the south, Texas fever and a recent talk of foot and mouth disease was heard in the Western and Middle States. Texas fever as a contagious disease comes to us from England. Stockmen of experience know well the results and destruction of this disease when once within the boundaries of their ranges or herds. He reviewed fully the recently much talked of subject, of pleuro-pneumonia, and asserted that it was contagious, and that it was time for sensible breeders to think and vigorously act in this

matter. He advocated concerted action, and suggested that immediate steps be taken to have Legislature quarantined laws passed that would protect the stock-raising industry. The report of Secretary Harding was read and accepted. Messrs. Cundiff, Lackey & Leonard were appointed a committee to confer with the leading fair associations regarding suitable premiums. Messrs. Leonard, Harris and Pickett were appointed a committee to inspect the Short-horns to be offered at the next annual sale. It is provided that at the next sale there shall be four females to one bull listed. Col. L. P. Muir was appointed auctioneer.

OUR CLUB RATES.

We respectfully ask attention of our readers and friends to our new club rates printed at the head of the first column of the 8th page of the paper. While the old price, \$1.50 a year, is maintained for single subscribers, it is sent for ONE DOLLAR A YEAR to members of clubs where five persons unite, and still less where eleven subscribers join.

THE MARKETS.

By Telegraph, November 3, 1884.

STOCK MARKETS.

Chicago.

The Provers' Journal reports: CATTLE Receipts 8,000. Natives strong. Export steers 6 35a6 60; good to choice shipping steers 5 60a6 10, common to fair 4 85a5 25, grassers 4 00a4 50.

HOGS Receipts 8,500. 5c lower. Mixed packing 4 20a4 50, heavy 4 50a4 90, light shipping 4 10a 4 60.

SHEEP Receipts 1,000. Steady. Common 3 00a3 25, fair 3 30a3 60, good to choice 3 85a4 50. Kansas City.

The Daily Indicator reports:

CATTLE Receipts 8,269. The market to-day was steady for grass ranchers. Exports 6 05a6 35; good to choice shipping steers 5 70a6 00, common to medium 5 00a5 50, feeders 3 25a4 25, cows 2 60a 3 25, grass Texas steers 3 20a3 70 Colorado half-breed steers 3 50a4 10.

HOGS Receipts 1,993. The offerings were light and market firmer. Lots averaging 231 to 304 lbs sold at 4 42a4 65, bulk at 4 50a4 55.

SHEEP Receipts 89. Market firm. Good natives av. 116 lbs sold at 3 75.

PRODUCE MARKETS.

St. Louis.

WHEAT Higher and slow. No. 2 red 77a 77 3/4c, Nov 79a79 1/4c.

CORN Higher and inactive. No. 2 mixed 36 3/4 a39c cash, 35 3/4a36c Nov.

OATS Steady and slow. No. 2, 26a26 1/4c cash.

RYE Better at 51c.

BARLEY Dull at 75c.

Chicago.

WHEAT Quiet and firm. Nov 74 3/4a74 1/4c, Dec 76a76 3/4c.

CORN Quiet and stronger. Cash 42a42 3/4c, Nov 41 3/4a42 1/4c.

OATS Steady and firm. Cash, 25 1/2a25 3/4c.

RYE Firmer at 50c.

BARLEY Dull at 58a60c.

FLAXSEED Weaker at 1 32 1/2.

Kansas City.

WHEAT Market about steady and all except May higher. No. 2 red winter cash 52 1/2a53c; Nov 52 3/4c; Dec 54 1/4c; Jan 55 3/4c bid, 56 1/4c asked; May 63 1/4c.

CORN The feeling was a shade better and prices higher. No. 2 mixed, cash 31a31 1/4c; Nov, first half, 30 3/4a30 3/4c; Nov : 8 1/4c, the year 26 3/4c.

Price Current Reports:

RYE No. 2 cash, no bids nor offerings. Nov no bids nor offerings. Dec 28c bid, no offerings.

OATS No. 2 cash, 21c bid, 22 1/2c asked.

BUTTER Storepacked goods are accumulating and a perplexity to the dealers. Creamery stocks are also accumulating and slow.

We quote packed:

Creamery, fancy fresh made..... 27a28

Creamery, choice "..... 25a26

Choice dairy..... 23a24

Fair to good dairy..... 18a20

Storepacked table goods..... 14a16

EGGS Supply in excess of demand. We quote fresh at 20c, lined at 15c.

APPLES Consignments of Missouri and Kansas choice to fancy 1 50a2 00 per bbl, common to good 1 00a1 25 do. Home grown from wagons 35a50c per bus for shipping fruit.

POTATOES We quote home grown in a small way at 35a40c per bus. Consignments in car loads; Early Rose 30c, White Neshannock 32a34c, Peach-blow and other choice varieties 35c.

SWEET POTATOES Home grown 50c for red per bus; yellow 75a1 00 per bus.

TURNIPS Home grown 35c per bus. by the wagon load.

CASTOR BEANS Quoted at 1 50a1 60 per bus.

FLAX SEED We quote at 1 17a1 18 per bus, upon the basis of pure.

Horticulture.

Transplanting Evergreens.

The climate of Massachusetts is not like that of Kansas, but some kinds of evergreens will grow, and do grow in both States. What is good, therefore, in that State, concerning transplanting evergreen trees is good in this State. A Mr. Bradford, of Massachusetts, some time ago wrote a letter on the subject which was published in the *New England Farmer*. In the winter months, which are nature's night, he says, the contrast between the leafless deciduous trees and the evergreens is very marked, and the green of the spruce, arborvitae, or larch is brought into complete relief by the white snow. Close to the dwelling house, they are not desirable or attractive; in summer they draw gnats and mosquitoes and render the ground damp. But planted in clumps, or groves, or in hedges, they are exceedingly ornamental. As to the time of transplanting them, the month of August has been given. My experience has been of a totally different nature. I have tried all the months of the year and have found that the latter part of May and the first fortnight of June are by far the most preferable. And I have always made a point of choosing trees that had not budded out, or to the least extent that I could find. I always choose the trees on the borders of the forest when I could, choosing trees that were growing independently, not having their roots interlaced with those of adjacent trees. The exposure of the roots to the wind or air must infallibly and without exception, be strictly avoided; the roots of evergreens are more tender and fragile than those of most other trees. A favorite plan was to dig a trench a foot wide, encircling the trees at a distance of two feet or more, and then digging out underneath the evergreen, lift it by means of a crowbar; thus we had always a ball of earth attached, and the delicate roots and rootlets were not broken or injured. We never took a tree from a mucky locality if we could avoid; such trees are not healthy or strong and their roots are extended in various directions to such length in search of nutriment, as to render their being transplanted successfully a matter of grave doubt. One writer states that "evergreens can not be torn from the earth, like common deciduous trees, with mutilated roots exposed to the sun and air." I should say most emphatically also no, but would further affirm that deciduous trees can not be torn from the earth. They require care as well as evergreens.

In the planting of evergreens, as in that of other trees, particular attention must be paid so as to provide for their being placed at the proper depth. Many transplanted trees are stunted or killed outright by having their roots placed at too great a depth. And it must be seen that they are planted firmly, stakes being provided if necessary, though this should not be the case where a proper and full ball of earth surrounding the roots has been taken. I have always thrown in a couple of buckets of water in the hole where the tree was to be planted, making a regular "mud-puddle," and have even thrown in a few handfuls of oats; this latter proceeding I do not believe necessary, as I never saw any benefit arising from it.

A top dressing of tan bark or marsh hay is beneficial, and especially if dry weather ensues, should be applied. It retains the moisture for the surface roots. Evergreens are not gross feeders, a moderately rich soil is all that is required; in very heavy clayey soils they do not grow well, turning color on most

of the branches and making but a sickly growth. I do not approve or endorse their being planted close to deciduous trees—these latter will absorb all the fertility of the soil, to the detriment of the evergreens. They should be planted at a considerable distance and their beauty is thus made much more manifest and conspicuous.

In making hedges of evergreens, I believe fully in obtaining small trees of eighteen inches in height from the nurseries; these will succeed much better than larger trees and cost less; taking into account the labor of digging and transplanting them from the woods of larger trees. And some of these latter will probably die, the percentage being greater or less according to the pains taken and according to the season. In dry weather it may be found necessary to water them; this work in addition to the many duties of the farm is often neglected. But if it is worth while to transplant, it must be considered proper to complete the work thoroughly, and the watering should be attended to,—not a mere surface watering, but a thorough drenching of the soil. This is all the more necessary with larger trees which may have been planted, as the change of location is more apt to affect them than smaller trees, which have in most cases been purchased from the nurseryman, who has, or ought to have transplanted them once or twice before disposing of them. I have transplanted evergreens at all seasons of the year, with the exception of December, January and February, and have succeeded in all of them except July. I consider the last two weeks in May the best time, as entailing the least care, and the trees are more apt to make a start. August, I consider the worst month of the year, and I have planted many hundreds of evergreens.

The experience of each one will of course vary according to climatic differences, various localities, and methods pursued. But no success can be attained if proper attention be not paid to a faithful preservation of the roots and proper depth of planting. On these two principles depends success. If you have no time to give the proper attention to ten evergreens which you wish to transplant to your lawn, do not transplant them—take five for the time being. Better success with five than the labor with ten completely lost. The transplanting of trees is an easy matter, as is the making of "gilt-edge" butter, when you know how to do it. And to know how to do it consists in thorough thoroughness.

How to Raise Early Flowers from Seeds.

A writer in the *New York Evening Post*, who evidently has a practical knowledge on the subject, gives the following directions: The best way of sowing seed is not in flower pots, as is too often done; these are too porous and dry too quickly, particularly in the atmosphere of a sitting-room, where the air is necessarily much drier than in the green-house or hot-bed. Our best florists no longer sow seeds in earthenware, but use shallow boxes instead. Common soap boxes, cut into three or four pieces, making a depth of not more than one to two inches for the soil into which the seeds are to be sown, are convenient. Of course any size of box will do, but it should not be of greater depth than two inches, otherwise the soil will get too wet, and become sour. Care must be taken that the bottom of the box is left open sufficiently to allow the water to escape when given in excess. Almost any good soil will suit, which, for convenience, had better be procured from a florist.

After placing the soil in the boxes make the surface perfectly level and

smooth, then sow the seed evenly over it, press it into the soil, and cover it. The rule is that all seeds should have a covering of soil equal to the size of the seed.

When covered, water gently with a fine rose watering-pot; this one watering will usually be sufficient until the seeds come up; in any case, the soil should not be again watered until, by its light color, it shows indication of being dry. Although seeds will germinate in the dark, the moment that they break the surface of the soil they should be placed in the lightest possible place.

The temperature best suited to the germination of nearly all seeds is about 60 deg. at night with 70 deg. during the day. After the seeds have started to make the rough leaves, they should be replanted from the seed boxes into similar boxes at distances from an inch to an inch and a half apart, where they can remain to be set out in the open ground, from the middle to the end of May.

It is very important to get the proper kinds of flower seeds, because there are hundreds of varieties offered in the seedsmen's lists that it would be useless for the amateur to attempt to cultivate. For want of discrimination in selection, much disappointment ensues. The kinds recommended to give the most general satisfaction are asters in variety, balsams (camellia flowered), candy tuft in variety, cockscombs, chrysanthemum, tri-color, coleus, convolvulus, cypress vine, geraniums, marigold (gold-striped), mignonette, pyramidal and spiral, pansy in variety, Phlox drummondii, petunia, single and double, stocks, verbenas, and zinnia.

Another plan, very satisfactory with amateur gardeners raising flowers, is to purchase very small plants from the florist about the first week in April, which at that season can be had at about one-third the price they are sold for in May. These plants are shifted into pots a size larger, and can be kept in the sitting-room where there is plenty of light. By the time of planting out in May they will have grown to be large and fine plants. They will require but little care. The kinds of plants best suited for summer flowering that can be safely grown in the sitting-room are begonias, chrysanthemums, carnations, geraniums of all kinds, fuchsias, heliotrope, and monthly roses. There are many others, of course, but these are the simplest and such as will be most satisfactory.

SINCE LAST OCTOBER I have suffered from acute inflammation in my nose and head—often in the night having to get up and inhale salt and water for relief. My eye has been, for a week at a time, so I could not see. I have used no end of remedies, also employed a doctor, who said it was impure blood—but I got no help. I used Ely's Cream Balm on the recommendation of a friend. I was faithless, but in a few days was cured. My nose now, and also my eye, is well. It is wonderful how quick it helped me.—MRS. GEORGE S. JUDSON, Hartford, Conn. (Easy to use. Price 50 cents.)

WE RECOMMEND Ely's Cream Balm where a cure for Catarrh is called for, and consider that we are doing the public a service by making its virtues known to those afflicted with this loathsome disease, for which it is in most instances a perfect cure.—PECK BROS., Druggists, Grand Rapids, Mich. (Price 50 cts. See adv.)

FRANK CRANE,

Formerly of the firm of A. A. Crane & Son, Osco, Ill.

COMMISSION AGENT

—For the Sale of—

HEREFORD, POLLED ANGUS, GALLOWAYS, SHORT-HORN,

And Thoroughbred and Grade Cattle of all breeds.

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HEFNER & SON,

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We keep on hand a choice lot of Imported and High-Grade Stallions, which are offered for sale at reasonable figures. Time given if required. Call on us.

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Choice stock for sale. Also some fine Grades. Correspondence solicited and satisfaction guaranteed.

—175 HEAD OF—
IMPORTED CLYDESDALES
Now on Hand.



The largest importer of Clydesdale horses, the largest breeder of pure Clydesdales. Mares now in breeding. Moderate prices. No equal opportunity can be found elsewhere to buy matured Stallions or young Stallions and Mares all ages. Persons invited to examine the stock. Correspondence invited. For particulars, call on or address
ROBERT HOLLOWAY, Alexis, Ill.

Cures all Open Sores on Animals from any cause. At Harness or Drug Stores. 50 Cents a Box.



The Veterinarian.

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

QUESTION.—Is there any way I can pursue so as to keep my stallion quiet while in the company of other horses? [Nothing but careful management. Sedatives are sometimes given to unmanageable horses, but in your case, where still, and action is required, we advise only care.]

FOUL FEET.—In cows; get lame, and feet swell over the hoof. They are losing flesh and milk. [You have a case of foul feet. Wash every foot clean with warm water, then dress with hot elm water, then dress with carbolic ointment. Keep the cows in the barn, on clean bedding; do not let them out to pasture till cured; feed well.]

OBSTRUCTED TEAT.—I have a Jersey cow that showed symptoms of garget when she first went to pasture. One teat I was obliged to milk with a tube. After a while, she got better, but the teat that I milked with a tube has milked very hard ever since; it is perfectly soft, as is also the bag, and there are no bunches. The cream, after standing a little while, has an old taste, which spoils the butter. She feeds well and seems perfectly healthy. Can anything be done for her? She is due next January. [Dilate the milk duct of teat with a probe before milking for five minutes each time; also after milking in same way. This will probably give immediate relief.]

EPIZOOTIC IN MARES.—I have a Norman mare that went lame, slightly at first, and the lameness increased day by day until she could not put her foot to the ground. The right hind leg swelled up to the knee hard and tight. The fever was so high that a separation took place between the hoof and skin at the quarter. I gave a blood purifier, and treated the swelled limb with a cooling lotion—sulphate of zinc and acetate of lead. In the crack where separation took place, I put barbaeoe tar and muriatic acid, four of the first to two of the latter. She recovered with a slight enlargement of the limb. Three weeks ago another mare, three weeks after foaling, took something of the same nature. The separation of hoof did not take place, but a sloughing sore, with a putrid discharge of white matter dripping from it continually. The sore is about the size of a silver dollar, just above the hoof inside of the right hind leg. Her ankle is fearfully swelled yet; the sore is drying up. Her lameness was intense; could not put the foot to the ground, and very tender to the touch; did not lie down for a week. I treated her in the same manner as the first one, and she is improving. Three days ago, still another mare was attacked in same manner; as yet, is not very lame, but it is commoning in the same manner as the others. What is it, and what treatment would you advise? These mares were turned to grass in the evening when worked, but most of the time were on dry feed, the best of hay, oats and spring water; were salted regularly, and treated in the best manner. I find that several other horses in the neighborhood are similarly affected. [It would be impossible to give a name to the disease you describe, as it is not one disease in all cases, but a contaminating influence which affects animals differently. It has existed largely for a year past in many sections, known as epizootic, erysipelas of a gangrenous nature, and so on. Name as applied to disease amounts to very little. Your mares were affected by a constitutional disease, the swelled legs being merely local manifestations of it; the legs were

not strained or injured by external violence. The sores you speak of may be dressed with the powder of freshly-slaked lime, dusted onto the raw parts, after washing sores, once a day. Next day, wash and apply some of the following lotion: Powdered sulphate of copper, 2 oz.; compound tincture of aloes, 4 oz.; hot water, 1 pint; mix. Give one of the balls, No. 1, then daily for three days one of those marked No. 2. No. 1—Powdered barbaeoe aloes, 12 dr.; powdered nitrate of potash, 3 oz.; powdered gentian, 3 oz., and a sufficient quantity of Venice turpentine to make into four balls. No. 2—Venice turpentine, 8 oz., and a sufficient quantity of powdered gentian. Mass, and divide into eight balls.]

The Small Breeds of Hogs.

A writer in *Farm and Garden* says a good word for small breeds. Although the majority of the farmers are partial to the large breeds, there are some advantages in favor of small Yorkshires and Suffolks not possessed by the Poland-Chinas or Chesters. Every one who raises stock must acknowledge that an animal which has ceased to grow fattens more readily than one which is not matured. The tendency at the present day is to breed for small carcasses (except in the neighborhood of large pork-packing cities), as such meat is more in favor and realizes higher prices than larger carcasses, but unless the small hogs can be raised at a cost equivalent to the production of pork, the larger sizes will be preferred. Now, if we consider that the small Yorkshire and Suffolk mature early, it at once becomes apparent that they are more easily fattened. While the large breeds require time to mature the food consumed must contribute to bone and tissue, though a proportion will be devoted to fat, and in the meantime a hog of a smaller breed begins much earlier to convert nearly all its food into flesh. If we have a litter of pigs to farrow from a small breed, at the same time with a litter from a large breed, in proportion to the cost of food from April to December the gain will be nearly the same, although the pigs of the larger breed may weigh more than the other, but the difference will not be very great. If the pigs are kept over to the second year, the larger breed will be much more profitable, but for the first year the profit will be the greatest from the smaller breed, and this may be verified by any farmer who will take the pains to keep an account of the expenses. The small breeds grow fast, fatten early, and are fit for the butcher long before the large breeds. The comparison is not made as to which will grow the faster, or which will make the larger hog, but which will yield the largest profit, the profit being that sum derived after deducting the cost, whether the pigs weigh one hundred pounds or three hundred. If the boars of the small breeds are used on large, coarse sows the pigs will be harder, for the pure breeds are bred too fine for general farm purposes, but the crosses are excellent, and always give satisfaction.

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellow-men. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. NOYES, 149 Power's Block, Rochester, N. Y.

D. M. MAGIE COMPANY, OXFORD, BUTLER CO., OHIO, Originator and Headquarters for Magie or Poland-China Swine. 751 head sold for breeders in 1883. Have shipped stock to Seven Foreign Countries. Send for Circulars.

Acme Herd of Poland Chinas



CHALLENGER
Bred by STEWART & BOYLE, Wichita, Kansas.

At the head of our select herd of 25 matured sows, stand two noted boars, Kentucky King 2861 and Challenge 4939, both prize-winners, and for individual merit unsurpassed in the State or elsewhere. Stock of all ages generally on hand for sale. Pedigrees "all edge," prices reasonable and satisfaction guaranteed. Address STEWART & BOYLE, Wichita, Kas.



THOROUGHbred POLAND-CHINAS

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 4 breeders free. *Swine Journal* 25 c's. In 2 cent stamps. Come and see our stock; if not as represented we will pay your expenses. Special rates by express.

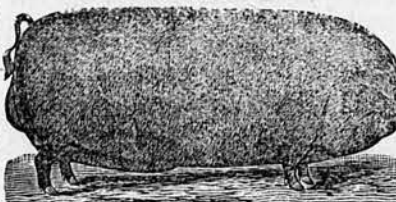
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OF POLAND-CHINA SWINE.

Breeding Stock recorded in American and Ohio Records. Tom Duffield 1675 A. P.-C. R. at head of herd. Always apace with latest improvements of the favorite breed. Personal inspection solicited. Correspondence promptly answered. JELLEY & FILLEY, Proprietors, KINGMAN, KANSAS.

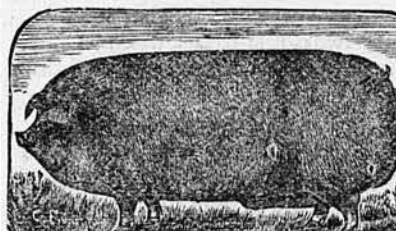
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Breeder of Pure Poland-China Hogs. This herd is remarkable for purity, symmetry and are good breeders. Black Jim, a prize-winner, bred by B. F. Dorsey, heads the herd. Stock recorded in Central Poland-China Record. Correspondence invited.



ROME PARK STOCK FARM, located seven miles south of Wellington, Sumner Co., Kansas. Rome depot adjoining farm. I have 35 breeding sows—Poland-China and Large English Berkshire swine. Also 230 high grade Short-horn cattle. Stock recorded in Ohio and American Records. The animals of this herd were and are prize-winners and descendants of prize-winners, selected with care from the notable herds in the different States without regard to price. The best lot of sows to be seen. Am using six boars—Cornshell 2d, Kansas Queen, Kansas Pride, Cora's Victor, Ohio King, Hubbard's Choice, sweepstakes. Orders booked for Spring Pigs. Address
T. A. HUBBARD,
Wellington, Kansas.

Improved Poland-China Hogs



We have been breeding Poland-China Hogs for twenty years. The long experience obtained has enabled us to select none but the choicest specimens for breeding purposes. We now have

Hogs of Quick Growth,

Easily fattened and early matured, showing a great improvement in form and style, especially in the head and ears.

Our breeders consist of the finest lot of Sows and three of the best Boars in the State, being descendants from the best families in the United States. Those wishing choice pigs should send orders in early as there is a very large demand for stock. Mail orders filled with dispatch. Pedigrees furnished with all hogs sold.

S. V. WALTON & SON,

P. O., Wellington, Kansas; Box, 207.

Residence, 7 miles west of Wellington, near Mayfield.

Poland-China and Berkshire HOGS.



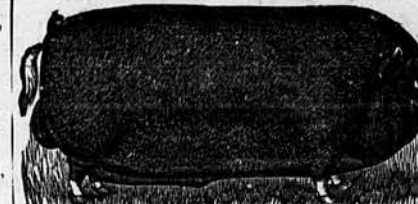
We have for sale a fine lot of Poland-China and Berkshire Pigs, from 2 to 6 months old. Our is the Largest herd of pure-bred Swine in the State, and the very best strains of blood of each breed. If you want any of our stock write us and describe what you want. We have been in the business many years, 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.

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

JAMES ELLIOTT,

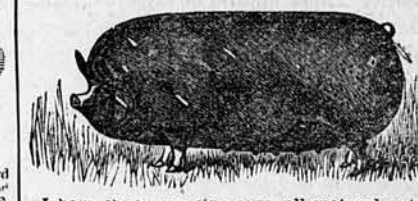
Abilene, Kansas,



BREEDER OF PURE POLAND-CHINA SWINE. My herd is composed of twenty breeding sows of the leading families known to fame, headed by Earl of Carlisle 10459. My hogs are noted for size, uniformity, fine heads, broad hams, great depth, with short, strong legs. They are perfectly marked, having good coats of hair; with quality of bone that enables them to carry a great weight, combining quick and easy feeding qualities. Stock all recorded in A. B. R. I am now prepared to fill orders for pigs, of either sex. Prices reasonable. Correspondence and inspection invited.

PLEASANT VALLEY HERD

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.

WELLINGTON HERD

ENGLISH BERKSHIRES.



The Wellington Herd of well-bred and Imported Berkshires is headed by HOPFUL JOE 4889. The herd consists of 16 matured brood sows of the best families. This herd has no superior for size and quality, and the very best strains of Berkshire blood. Stock all recorded in A. B. R. Correspondence and inspection invited. Address
M. E. KEAGY,
Wellington, Kas.

Thorough Tillage.

The time was when a plausible excuse could be given for putting a crop into half-prepared ground. The pioneers who, with almost superhuman labor, stripped from our farms the primitive forest, found their fields beset with stumps, and the plow frequently arrested by the network of roots that occupied the soil, but a few inches below the surface. Moreover the implements of tillage were few and rude. The old-style bar-share plow, with its wooden mold board, a triangular harrow, not always with iron teeth, and the heavy Virginia hoe completed the catalogue of tools for field culture. Under these circumstances, and with only these means, farmers could readily be excused from very thorough tillage of their fields. The glory of the farmer then was the number of acres he had cleared and brought into cultivation. To have forty acres in corn was a grand achievement, and but few people inquired how it was cultivated. Indeed, this was of but little importance then, for the virgin soil brought luxuriant crops almost spontaneously. Now, everything is changed—we have taken the cream from our soil, and the best of it demands systematic, patient and thorough tillage for the production of full crops. But when new duties come, the means of performing them come with them. The stumps are chiefly gone, and what few remain are rapidly disappearing under the American use of dynamite, and time has converted the roots into manure, so that they no longer obstruct the plow. The old triculture of plow, harrow and hoe has multiplied almost beyond number. We have plows of the most perfect models and for almost every conceivable purpose, both for breaking and for after-tillage: we have rollers, clod-crushers, pulverizers and harrows of every conceivable pattern and of superior workmanship. In these times, no man has an acceptable excuse for a cloddy field. Every farmer knows that he must plow, sow and plant, but too many seem to think that this brief catalogue embraces the whole duty of tillage. Breaking the ground is only a preparation for tillage, though a necessary one. The soil should every year be inverted, so that the surface of last year with its manures and crop of decaying vegetation may become the deep root bed for this year's crop. But when this is done, the new surface demands attention. A strong clay loam is likely to show hard lumps and clods, that will probably grow harder by exposure to sunshine. These should be crushed with a roller or clod-crusher as soon as practicable after plowing. A heavy harrow, following this operation, will bring to the surface such clods as may have been buried too deep to be affected by the first clod-crushing. A light pulverizer, or plank drag disposes of this part of the work, but it may be necessary, in order to secure the desired fineness of seed bed, to stir the surface with a spring-tooth harrow, the "Disc," the "Acme," or a two-horse cultivator; for a fine seed bed should be obtained before planting or sowing, however much work it may require.

But some men will ask—where is the profit in all this labor? It is sometimes difficult to make men comprehend operations that they cannot see with their eyes, and there are many of these in farming. Much of the plant food, by which crops grow, is absorbed from the air by the soil; therefore, the fertility of a soil is largely dependent on its absorbing power, and this again depends much on its fineness. Two soils may have nearly the same chemical composition, but show very different results in culti-

vation, owing to the different degree of fineness in their particles. But almost any soil into which the air is freely admitted from year to year, will ultimately become fine by the atmospheric action on its particles. Deep and thorough pulverization is the pivot around which all the operations of successful farming revolve. As a basis on which to rest this, we must have thorough drainage, so that the soil will not become saturated and run together into a compact mass every time it rains. Access to air is a necessity to the roots of growing plants, and this they freely get in a well pulverized soil. The gentle showers are drunk up by a porous soil, and the fertilizing gases that they wash out of the air are retained and used as plant food. In ways too numerous to mention, a fine soil aids the growing crop.—*Indiana Farmer.*

The Manure.

The farmer in calculating the profits of the live stock business finds a very large proportion of the profits in the manure that the stock makes, and yet it is a fact, strange as it may seem, that thousands never give much consideration to this source of profit. The average article in the press, upon the subject of income from stock, utterly ignores the question of manure. If it is sheep, it is mutton and wool that receive attention, the manure feature being usually dismissed with the thought that sheep droppings are a valuable manure, but as one man once said to us, "of such small quantity as to cut no very important figure on the farm." A better opportunity to show the value of the manure in stock raising is seldom furnished than is offered by such a thoughtless remark as this. Sheep droppings make themselves prominently felt in the improvement of the soil, and the wool itself imparts increased fertility. And in regard to all stock, the manure heap must be considered in estimating the profits, or we are throwing away our cent column in our process of addition.

The value of manure made by animals, both as to quantity and quality, will depend upon the character of the food, as all will readily see. Some foods are richer in fertilizing elements than others, and the process of digestion and voiding can add nothing to the elements. The droppings of the animal are that portion of the food which the system does not utilize, converted into the most convenient and active shape for application to the soil. Cotton seed meal, for instance, about which so much has recently been said, has a manurial value of three times more than clover hay and thirty times more than turnips. It is particularly rich in nitrogen, phosphoric acid and potash, elements that are so conspicuously necessary in plant growth; and whatever food contains these elements in large quantities will make a highly fertilizing manure. The value of manure from different articles of food has been estimated by Lawes to be as follows: Cotton seed meal, twenty-seven dollars and eighty-six cents per ton; linseed meal, nineteen dollars and seventy-two cents; beans, fifteen dollars and seventy-three cents; wheat bran, fourteen dollars and fifty-nine cents; clover hay, nine dollars and sixty-four cents; Indian meal, six dollars and sixty-three cents; oat straw, two dollars and ninety cents, and turnips, eighty cents.

Block made an estimate of the quantity of manure from a horse fed upon hay, oats and grass, and concluded that one hundred pounds of hay would yield one hundred and seventy-two pounds of manure; one hundred pounds of oats two hundred and four pounds of manure; and one hundred pounds of grass forty-three pounds of manure. If full

fed a horse will make about twelve thousand pounds of liquid manure in a year. Such manure will contain about 50 per cent. of nitrogen, and so if we reckon, as Dr. Oemler states, that two-thirds of the solid and liquid droppings are saved, we have five tons of manure to every well fed horse, with the large amount of nitrogen above indicated.

The droppings of cows are not so rich in ammonia as those of the horse, but they lose nothing from the heating process, and they really contain more nitrogen. In an experiment it was found that a cow fed upon twenty-four pounds of hay and twelve and a half pounds of Irish potatoes, voided daily about one bushel of solid excrement, which contained two and a half pounds of salts of ammonia, potash, soda and lime. The manuring product of a cow is estimated to be thirty-one thousand and twenty-five pounds a year, which contains a hundred and eighty-nine pounds of ammonia, seventy-one pounds phosphate of lime, thirty-seven pounds of sulphate of lime, seventy-seven pounds carbonate of lime, twenty-four pounds of common salt, and fifteen pounds sulphate of potash.

If manure is so profitable, therefore, if the excrement of animals in itself and through its absorptions, makes so much larger weight than the food that is consumed, and is so rich in fertilizing elements, if the animals are properly fed, the subject of feeding becomes intimately connected with the stable and barnyard, and the stabling and yarding of stock assumes greater importance than ever. Feeding might just as well be done with a view to manurial value as to the production of meat, and an effort ought to be made to save all the manure that is produced.

WM. THOMPSON.

ADAM, THOMPSON.

WM. THOMPSON & SON,

Proprietors of

Rosedale Stock Farm

Importers and Breeders of

Shire-bred, Percheron-Norman Horses

—AND—

SHORT-HORN

—CATTLE—

IMPORTED & THOROUGHbred STOCK

FOR SALE.

Stallions a Specialty.

MAYSVILLE, DeKALB CO., MO.

LOCATION.—Rosedale Stock Farm is situated 9 miles north of Osborn, on the Hannibal & St. Joe R. R., and any one wishing to purchase can be furnished conveyance free at Messrs. Chipps & Berlin's livery stable in Osborn.

Another importation of Stallions will arrive in October.

The BUYERS' GUIDE is issued Sept. and March, each year: 224 pages, 8½ x 11½ inches, with over 3,300 illustrations—a whole picture gallery. Gives wholesale prices direct to consumers on all goods for personal or family use. Tells how to give exact everything you eat, wear, or with. These books contain information gleaned from the markets of the world. We will mail a copy Free to any address upon receipt of the postage—8 cents. Let us hear from you. Respectfully,
MONTGOMERY WARD & CO.
227 & 229 Wabash Avenue, Chicago, Ill.

E-TRAY.

HEIFER—Taken up by the subscriber, September 28, 1884, a dark red heifer with a little white between her fore legs; supposed to be 1 year old; no marks or brands visible. The owner can have her by proving property and paying charges.
L. T. LUCE,
Bryant, Kansas.

THE STRAY LIST.

HOW TO POST A STRAY.

BY AN ACT of the Legislature, approved Feb 27, 1866, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker up, to the KANSAS FARMER, together with the sum of fifty cents for each animal contained in said notice. And such notice shall be published in the FARMER in three successive issues of the paper. It is made the duty of the proprietors of the KANSAS FARMER to send the paper free of cost, to every county clerk in the state to be kept on file in his office for the inspection of all persons interested in strays. A penalty of from \$5.00 to \$50.00 is affixed to any failure of a Justice of the Peace, a County Clerk, or the proprietors of the FARMER for a violation of this law.

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

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

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 fails for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

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

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

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

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

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

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

At the end of a year after a stray is taken up, the Justice of the Peace shall issue a summons to three householders to appear and appraise such stray, summons to be served by the taker up; said 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 he benefits the taker up may have had, and report the same on their appraisal.

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

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

Strays for week ending Oct. 22, '84.

Riley county—F. A. Schermerhorn, clerk.

STEER—Taken up by Thomas Tempore of Bala, September 18, 1884, one red and white steer, 2 or 3 years old.

2 STEERS—By same, two red and white steers, 1 year old.

HEIFER—By same, one roan heifer 1 year old.

Rice county—C. M. Rawings, clerk.

PONY—Taken up by Adam Laesh, in Raymond, Mo., September 8, 1884, one dark roan mare pony, white stripe in face, 4 white feet, branded RQ2NH; valued at \$3.

Crawford County—Geo. E. Cole, clerk.

CALF—Taken up by John H. Cooper, in Baker tp., October 13, 1884, one pale roan steer calf supposed to be about 8 months old, square crop out of left ear, had small rope around its neck; valued at \$12.

Strays for week ending Oct. 29, '84.

Pottawatomie county—I. W. Zimmerman, clk.

BULL—Taken up by Philomena P. Cox in Sherman tp., October 4, 1884, one spotted and red roan bull, 4 years old, no brands or marks; valued at \$30.

Allen county—R. W. Duffy, clerk.

MARE—Taken up by — one bay mare, 15 hands high, 15 years old, branded P on left shoulder, right hind foot white, thin dark mane on tail; valued at \$25.

Jefferson county—J. R. Best, clerk.

STEER—Taken up by John J. Shaffer in Rock Creek tp. (P. D. Meriden) October 21, 1884, one yearling steer, white face, red ears, red around the eyes and nose, roan sides, white back, tail brindle, front legs and houlders red, hind legs white no brands; valued at \$20.

Strays for week ending Nov. 5, '84.

Linn county—J. H. Madden, clerk.

PONY—Taken up by J. T. Sherr in Paris tp., September 29, 1884, one bay pony mare, white spot on the end of its nose, white collar marks, branded on the left shoulder with letter N; valued at \$40.

COW and CALF—Taken up by Hannah White of Stanton tp., October 22, 1884, one roan cow with red bull calf, supposed to be a July calf; valued at \$25.

Sumner county—Wm. H. Berry, clerk.

PONY—Taken up by S. V. Clark, in Conway tp., September 13, 1884, one bay mare pony, 8 years old, 11½ hands high, roan on left shoulder, L on left ham, left hind foot white and white strip in face; valued at \$28.

Davis county—P. V. Trovinger, Clerk.

HORSE—Taken up by Wm. War, near Junction City, October 8, 1884, one bay horse, 15½ and high, star in forehead, white right hind foot about 10 years old, no marks or brands; valued at \$50.

Strayed or Stolen.

From my place, about the middle of June, last, a three-year-old filley—a light bay with black points and black mane and tail, with a black strip along the back; weighs about 1,150 pounds; collar marks were perceptible at time of her disappearance. A liberal reward will be paid for the return, or for information that will effect it.
WM. A. PIERCE,
Maple Hill, Wabunsee Co., Kas.

The Poultry Yard.

Incubators and Their Limitations.

Mr. Stephen Beale, author of "Profitable Poultry Keeping," has recently added something on the subject above named to what is found in his book. It will be noted, he says, and the most ardent advocate of artificial incubation will not deny the fact, that there is not in England at any rate, as much now said respecting this subject as there was four or five years ago. The reasons for this are not difficult to find. First, we may mention that the discovery of a way in which the obstacles to evenness of temperature could be overcome, and the facility with which artificial incubation could be conducted, led to considerable interest being taken in the matter, even by those who only regarded it as an amusement, or at best a hobby. This increased interest may be dated from the Great International Exhibition held at Paris in 1867, where hydro-incubators—the name afterwards given to the machines made on the principle there introduced—were shown in actual operation. Chicks were hatched out daily, and machines were sold in large numbers, to be scattered all over England and the Continent. These machines, it is true, did not work so well in the hands of many of the purchasers as with the vender. The blame was not his own, but that of climate. In France, especially during the summer, when the heat is great, a very small tank is needed, but in colder and more variable countries, this was found inadequate to maintain a sufficiently even temperature. Hence, many of the incubators purchased at Paris were thrown aside as useless. But the right idea had been secured, and it was not long ere machines with a larger tank were introduced, and the increased body of water sufficiently overcame the difficulty. Respecting these incubators I may have more to say later on.

One result of the interest thus aroused in the question, was that the poultry papers—some of which had systematically sneered at incubators—took it up. Thus, publicity was given to it, fanciers became interested, and so the circle was widened. It was not the first time there had been a similar state of affairs, and this would have died a natural death, as others had done, if the new machines had been either as expensive or as difficult to work as the old ones. For a time there was a great run on the artificial method of incubation, but breeders of high-class fowls have found that as a rule they can do better with hens, for highly-bred eggs are seldom so fertile, are never so easily hatched, and are not nearly so hardy as eggs from farm-yard fowls. The poultry journals have ceased to give quite as much space to the matter as they were wont. Those who took up the pursuit as a hobby or a source of amusement, have tired of it, and thus things have assumed a much quieter aspect. Incubators are still made and sold in fairly large numbers, but the purchasers and workers are not fanciers as a rule. They are producers for the market, and are content to go quietly on, saying nothing so long as the machines do their work. There is still strong prejudice shown by many against the system, but this prejudice is not so powerful as it once was.

It may fairly be asked whether there are any limitations to the use of incubators, and to those who may use them with a prospect of success. The advantages are apparent if the working can be guaranteed, and to avoid all the troubles attendant upon hatching by hens is "a consummation devoutly to be wished." A machine is ever broody,

it does not desert its eggs, nor kill the chicks by its clumsiness. But, in all fairness, we must say that there are limitations. First, it is scarcely worth the while of any one buying an incubator, who only hatches two or three dozen eggs during the year, save as a source of amusement. But looking at it from a profitable point of view, it is a decided waste of money and effort to buy a machine and only get from it about one-twentieth of its capabilities—something like using a forge hammer to crack a nut—very interesting but not at all profitable. To meet the demands of small breeders, incubators of limited capacity have been made, but these are very little less in cost than the larger ones, and my experience has been that they are by no means so reliable. Where a hundred or more chicks are to be hatched, an incubator can be regarded as a useful investment, but for less than that number we should not advise its purchase.

It has been already hinted that I do not advise those who keep highly-bred fowls to use an incubator. This is, however, a purely English experience. You are aware that, in this country poultry breeding has been carried out scientifically—too scientifically, in fact. I have already, in a previous letter, discussed inferentially the state of poultry-keeping in Britain. A result of the exaltation of the fancy, and still more of the limited space to which many fowls are restricted, is to reduce somewhat their stamina. And a reduction in this way shows at once the lesser fecundity and vitality of the eggs laid by these birds. It may be that on your side of the Atlantic, where land is more plentiful, and where the owning of an acre or two of ground is the rule rather than the exception, the same results have not been experienced. If this be so, and the purely fancy fowls are not so weakened, then what I am about to state will not be applicable. But it is a fact that incubators have not been a success in the hands of breeders of high-class birds. They find hens do better for them, though why this should be so I am at a loss to understand. The proportion of chicks which form but are unable to get out of the shell, or die between the fourteenth and twentieth days, is something astonishing. Even under hens, this proportion is generally large, but in a machine it is still greater. For those who keep ordinary fowls—that is, not too fine or closely bred, whether pure or cross-bred—who do not weaken their stocks by fine breeding, or keeping them in confined runs—who have, in fact, healthy stock, an incubator is found a most valuable addition to the poultry-yard appliances. It is ever ready, obedient, and at hand. But I must now leave over what I have to say on the more prominent English machines, as I do not wish my letter to become too lengthy.

From March 1 to September 13, Chicago packers slaughtered 1,451,000 hogs, being 1,000 less than for the corresponding period a year ago.

Cider apples are not injured by light frosts. Placed in heaps, the fruit loses water and the juice becomes richer. Cool weather is best for cider-making.

The great problem in modern dairying seems to be how to make the live cow compete with the dead hog. So far, the hog is about two lengths ahead.

The barren nature of soil containing much tannin is due to the fact that it precipitates in an insoluble form the constituents which are most necessary for plant life.

The *Farm Journal* puts it in this way: "If the fair is a fair, attend and help build it up. If it is a gambling concern in any form, stay away and help break it down."

A gardener recommends sowing onion seeds in the fall. Over the beds place some mulch for protection. Early onions may be thus secured.

If your horses have sore shoulders, scratches, cuts or open sores of any kind, use Stewart's Healing Powder.

Do you know that it is no easy matter to find a perfect tomato? It must not only be "seamless," but firm, smooth, without a crack or blemish, and ripened evenly in every part.

The Mississippi valley produces 185,000 tons of cotton seed, one-fourth of which is marketed in Memphis, much of it being shipped in a crude state from that point to Italy.



"I owe my Restoration to Health and Beauty to the CUTICURA REMEDIES."

Testimonial of a Boston lady.

DISFIGURING Humors. Humiliating Eruptions. Itching Tortures. Scrofula, salt Rheum and Infantile Humors cured by CUTICURA REMEDIES.

CUTICURA RESOLVENT, the new blood purifier, cleanses the blood and perspiration of impurities and poisonous elements, and thus removes the cause.

CUTICURA the great skin cure, instantly allays itching and inflammation, clears the skin and scalp, heals Ulcers and Sores, and restores the hair.

CUTICURA SOAP an exquisite skin beautifier and Toilet Requisite, prepared from CUTICURA, is indispensable in treating Skin Diseases. Baby Humors, Skin Blemishes, Chapped and Oily Skin.

CUTICURA REMEDIES are absolutely pure, and the only infallible Blood Purifiers and Skin Beautifiers. Sold everywhere. Price, Cuticura, 50 cents; Soap, 25 cents; Resolvent, \$1. POTTER DRUG AND CHEMICAL CO., BOSTON, MASS.



What is Catarrh?

It is a disease of the mucous membrane, generally originating in the nasal passages and maintaining its stronghold in the head. From this point it sends forth a poisonous virus along the membranous lining and through the digestive organs, corrupting the blood and producing other troublesome and dangerous symptoms.

Cream Balm is a remedy based upon a correct diagnosis of this disease and can be depended upon. Give it a trial.

Ely's Cream Balm Causes no pain. Gives Relief at once. A Thorough Treatment will Cure. Not a Liquid. Not a Snuff.

Apply into nostrils. Price 50 cts. at druggists; 60 cts. by mail, registered. Sample bottle by mail 10 cts.

ELY BROTHERS, Druggists, Owego, N. Y.

ARE YOU BILIOUS?

If you feel dull, drowsy, have frequent headache, mouth tastes bad, poor appetite, tongue coated, you are troubled with torpid liver or "biliousness." Why will you suffer, when a few bottles of Hops and Malt Bitters will cure you? Do not be persuaded to try something else said to be just as good. For sale by all dealers.

HOPS & MALT BITTERS CO.,
DETROIT, MICH.

TOPEKA Medical & Surgical INSTITUTE.



This institution is incorporated under the state law of Kansas. Has had a flourishing existence for ten years, during which time thousands of Chronic and Surgical diseases have been treated successfully.

Drs. Mulvane, Munk & Mulvane, the physicians in charge, besides doing an acute city practice, devote themselves to the treatment of all kinds of chronic and surgical diseases, in which direction lies their several specialties in Surgery, Gynecology and Eye and Ear affections.

They are prepared to treat successfully by the latest and most approved methods, Rheumatism, Paralysis, Neuralgia, Epilepsy, Chorea, Chlorosis, Dropsy, Scrofula, Dyspepsia, Constipation, Nasal Catarrh, Bronchitis, Gout, Polypus, Tumors, Epithelial Cancer, Old Ulcers, Skin Diseases, Deformities, Granulated Lids, Strabismus, Uterine troubles, Seminal Weakness, Spermatorrhea; disorders of the Kidneys, Liver, Bladder, Rectum, and all private diseases; Tape Worms removed from man, one to four hours without fasting; Hemorrhoids or Piles cured without the use of the knife or ligature; artificial eyes inserted.

MULVANE, MUNK & MULVANE.
Also Medical Attendants to the celebrated Mineral Wells of Topeka. Correspondence solicited.
References:—Hon. John Francis, Hon. P. I. Bonebrake, J. R. Halliwell, U. S. Attorney.

IT LEADS ALL.

No other blood-purifying medicine is made, or has ever been prepared, which so completely meets the wants of physicians and the general public as

Ayer's Sarsaparilla.

It leads the list as a truly scientific preparation for all blood diseases. If there is a lurking taint of Scrofula about you, AYER'S SARSAPARILLA will dislodge it and expel it from your system.

For constitutional or scrofulous Catarrh, AYER'S SARSAPARILLA is the CATARRH true remedy. It has cured numberless cases. It will stop the nauseous catarrhal discharges, and remove the sickening odor of the breath, which are indications of scrofulous origin.

"Hutto, Tex., Sept. 28, 1882.

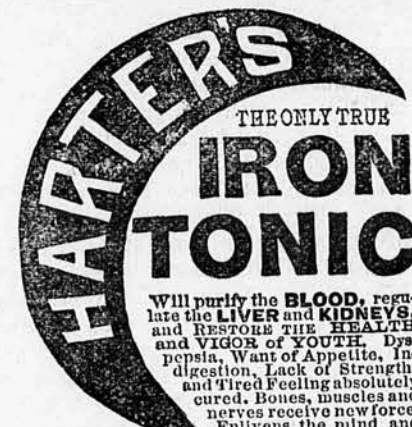
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The Busy Bee.

Theories About Wintering Bees.

"Some words on theories may be well applied, And take them kindly, though they touch your pride."

Dampness, cold, confinement, bad honey, diarrhoea, pollen, each of these and many others have been given as the one cause for the loss of our bees in wintering, and we have had theories based upon each of them. All the theorists have supposed that their pet theory was capable of accounting for all winter losses. The very latest is that brilliant conception evolved from the inner consciousness of Wm. F. Clarke, viz: that our losses are due to the fact that we do not supply the conditions favorable for the hibernating of our bees.

That any one of these theories can furnish an Ariadnean clew which shall guide us out of the labyrinth of winter dangers, past the sirens of early spring into the summer of safety, is, I think, not true; because the dangers to our bees arise not from one source but from many, and hence there is no one danger-point which, being passed, insures safety from all the storms that blow.

We may pack our bees so warm that winter's chilling blasts can no entrance find, but this will not shield them from the deadly carbonic dioxide exhaled from their own lungs into their homes of comfort. We may so ventilate the hives from below that this death-dealing gas (which is heavier than air) will flow out from the bottom of the hives; but this does not protect them from the moisture which, rising from the cluster and condensing upon the top-wall of the hive, flows down upon the combs, producing their fungus growths (moldy combs), disease and death. We may by upward ventilation keep them dry, but if we have not seen to it that they were supplied with proper food, from their long confinement, there will be inflammation of the intestines, diarrhoea and death.

But even if precautions have been taken against all preventable ills, there remain yet dangers from sudden and excessive changes of temperature, from spring warmth starting brood-rearing, then protracted cold and confinement coming upon the colony under unfavorable conditions, causing disease and death. So it is altogether unlikely that we shall ever be able to say, "Now is the winter of our discontent made glorious summer" by the valorous Heddon or Clarke, or, I may add, by any other one man, for it is by the united labor and observation of "many men of many minds," in many lands, that the art of apiculture is being put upon a sure and safe foundation.

The apicultural world owes and gladly pays great homage to the masters of entomology for their solid work for this branch of natural history; and the names of those brilliant Frenchmen, Reaumur, Latreille, and Cuvier; of the stolid German, Swammerdam; of the "great Swede," Linnæus; of the unconquerable Swiss, blind Huber; and of that clear-headed Dane, Fabricius, will ever be spoken of with veneration and honor. But these were men who by a lifetime of earnest work gathered facts from which they deduced broad generalizations of truth which have made strong the foundations of science. Coming to the men of our times, we delight to honor the names of Langstroth, Dzierzon and Quinby as men who sought after truth, and instead of theory they have given us facts.

While it is true that theory oftentimes goes before and points out the way whereby we may find the facts, yet we

can much better serve the interests of science by each one adding his mite to the sum of human knowledge, than by striving to establish some pet theory as the *ne plus ultra* of our art. We should recognize the fact that we have not only a Scylla and a Charibdis to pass, but that the whole winter voyage is beset with dangers to our bees; and recognizing this fact, we should not expect one theory or one precaution to carry us through the winter with safety.

A plan which has been successful with me is to put the bees into the lower story of their "Simplicity" hives upon a platform six inches from the ground, which platform is covered to a depth of eight inches with sawdust, on this the hives are set side by side in close contact. Side-walls are then placed all around six inches from the hives, with an opening one inch in height in front of the entrances of the hives; six-inch planks are then fitted between the hives and side-walls above the entrances of the hives, which are thus left open to the full summer size. The spaces between the walls and hives are now filled with dry sawdust, and well packed. The cover is removed and a cotton cloth spread over the frames, and ten inches of chaff or eight inches of very dry sawdust put in. The roof-boards are carefully laid an inch or two above the chaff, and four-inch alighting-boards are placed at the entrances, and the thing is done, making a very cheap and, I think, a safe winter protection.

I do not think it necessary to remove any of the ten frames, nor any of the pollen, but only see to it that each hive contains thirty pounds of good honey (or pure granulated sugar made into syrup and given early enough in the fall for the bees to have it sealed in the combs). If this amount of pure food is supplied, I should have no fears about pollen, for if the hives are packed as above stated, there will be warmth enough in them to enable the bees to procure their food from any part of the hive, and their own instinct can be safely trusted to use only such food as their conditions demand.

The above plan avoids danger from dampness by the upward ventilation through the cloth and chaff; from the cold, by the thick packing; from confinement by enabling the bees to fly whenever the weather is mild enough, and from diarrhoea by the good hygienic conditions surrounding them. Bees having pure air, pure food, and comfortable quarters will very rarely suffer from diarrhoea. As to danger from the want of hibernating: As Mr. Clarke alone has found the danger, so he alone has found the remedy, and I presume he alone will apply it.—Levi C. Johnson, in *American Bee Journal*.

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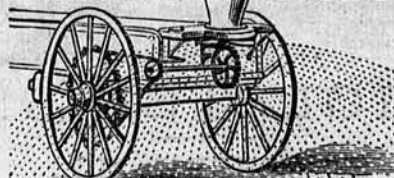
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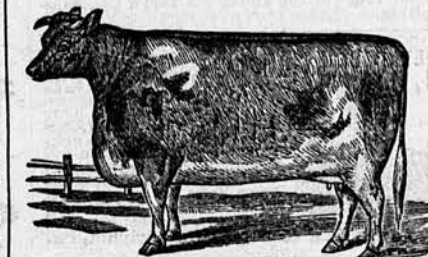
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