

KANSAS FARMER

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PRICE, \$1.50 A YEAR.

A Notable Herd of Cows.

Kansas Farmer:

We send you herewith a cut of the group of the Aaggie family, recently drawn from life by the young American artist, Cecil Palmer. The original picture, of which this is a reduced copy, he pronounces the most natural and finest work of his life. Each animal was accurately and carefully drawn, giving a very close portrait of each as it then

when 3 years old past, gave 13,573 pounds 15 ounces in a year.

Aaggie Beauty 2d, commencing in February, at 23 months of age, when only a month out of quarantine, gave 9,684 pounds 2 ounces in 11 months and 14 days, when she was due to drop her next calf.

Aaggie May, 3 years old, has given this season 12,835 pounds 5 ounces in 10 months and 19 days.

Aaggie Kathleen, imported at the same

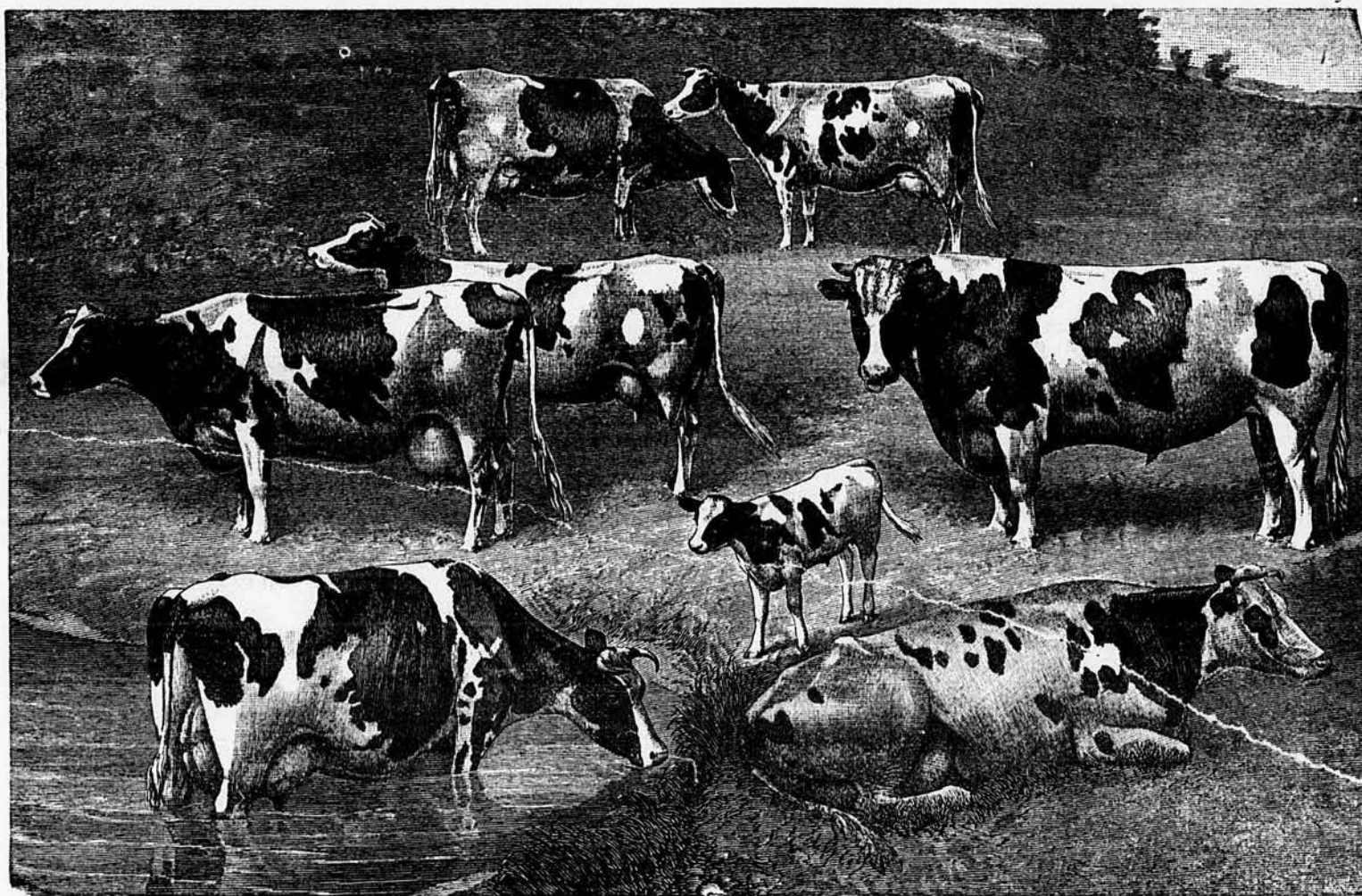
beef, 915 lbs.; hide, 76 lbs.; rough tallow, 126 lbs. Per cent. of dressed beef, 62 31-100; per cent. of offal, 24.

Little Wonder weighed alive, 1,493 lbs.; dressed beef, 791 lbs.; hide, 78 lbs.; rough tallow, 124 lbs. Per cent. of dressed beef, 52 98-100; per cent. of offal, 33.

The butchers that purchased and cut up the carcasses of Signet and Little Wonder send us the following strong testimonial as

Whenever you see nice healthy hogs in a clean dry stable and a nice dry clover lot for them to run in during the summer season, just mark the owner down as being posted to some extent on hog culture, for profit and pleasure.

Colts should always be put through the motions of being shod several times before they are taken to the blacksmith shop. This may seem like a very small matter, but if it were more frequently attended to there would be fewer horses that are "hard to shoe."



A GROUP OF NOTED AAGGIE HOLSTEINS.

Property of SMITHS, POWELL & LAMB, Syracuse, N. Y.

appeared. This group consists of Aaggie, her son Neptune, Aaggie Rosa, Aaggie Beauty, Aaggie Beauty 2d, Aaggie Kathleen, Aaggie May and her calf Horace, by Neptune. The Aaggie, we believe, is conceded to be the largest milking family yet produced by any breed.

Lady Clifden, a sister to Aaggie, was the first cow ever known to have produced 16,275 pounds of milk in a year.

Aaggie was the first cow to produce 18,000 pounds in a year.

Her daughter, Aaggie 2d, is the only two-year-old that has ever given 17,746 pounds in a year.

Aaggie Clara, imported by us last year, was the first two-year-old to give 65 pounds in a day.

Aaggie Constance, the marvelous two-year-old, has given us, this season, 76 pounds and 6 ounces in 24 hours.

Aaggie Rosa gave last year, the first season after importation, when not fully acclimated, 16,156 pounds 10 ounces.

Aaggie Beauty, commencing in February, only a month after coming out of quarantine,

time, has given, in 10 months, over 11,400 pounds.

Several other members of this family have done equally well, but we will not extend the list. We think no other family can make a corresponding showing.

Our Netherland family has records nearly equal to the above, while the entire original Netherland family, all bought of one party in Holland, and all he owned, six head, have weekly butter records which average for the whole number 17 pounds 6 1/4 ounces per week.

A few days since we caused to be slaughtered the recorded Holstein bull, Syracuse (822), calved April 24, 1882; the recorded cow Signet (1817), calved April 6, 1880, and Little Wonder (1788), calved May 4, 1880, with the following result:

Syracuse weighed alive, on day of killing, 2,290 lbs.; dressed beef, 1,430 lbs.; hide, 142 lbs.; rough tallow, 120 lbs. Per cent. of dressed beef, 62 44-100; per cent. of offal 26. He was killed by Messrs. Calfelt & Lenhart, Syracuse, N. Y.

Signet weighed alive, 1,470 lbs.; dressed

to the quality of the beef of these two cows: "We were much pleased with the two Holstein heifers purchased of you last month. We have been in the meat business for the last twenty-five years and have killed all grades of cattle, the best we could find in this country, but never have we had any in quality that would equal those purchased of you. We have had a great many compliments from the leading families in the city in regard to the Holstein beef."

Syracuse and Little Wonder had not been fattened for beef, and Signet we had fed for some time, but she was not what beef men would regard fat. Taking everything into consideration we think this shows decidedly to the advantage of Holsteins as beef animals.

SMITHS, POWELL & LAMB.
Syracuse, N. Y.

The tendency of the American farmer to rush from one extreme to another is proverbial, but in nine cases out of ten, the man who sticks to his established economy, comes out ahead.

To suffer for having acted well, is itself a species of recompense.

The further north any variety of apple will succeed, the finer the color and the better-flavored the fruit. Choice apples originating at the North rarely, however, hold their merits when carried far South.

An Arab would as soon strike his wife or his daughter as his horse; and no animals in the world are fleet-er, more enduring, or more docile in the performance of every task which is given them than the Arabian horse.

It has been discovered, recently, by medical men that "jump jaw," as it is called, or lumps found on the jaws of cattle, are sometimes caused by decayed teeth. It is not known how much the poor brutes suffer with the toothache.

Some teachers of penmanship now teach their pupils to write with both hands. The method of instruction is to make the pupil write his name in pencil, and then go over it with a pen held in his left hand. Constant practice gives proficiency.

The Poultry Keeper affirms that a good sprinkling of a pint of sulphuric acid, diluted with a pail of water, will effectually purify poultry yards, if sprinkled in them. Disease will be well used and noxious gases destroyed. It effectually keeps cholera away.

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.

April 14—James Cunningham, Kansas City, Galloway cattle.
April 22—J. S. Lemon, Short-horns, St. Joe, Mo.
April 23—Col. W. S. White, Sabetha, Kas., Short-horns.
April 29—Geary Bros., Aberdeen Angus, Kansas City, Mo.
May 1—Pettis County Short-horn Breeders, Sedalia, Mo.
May 5—Cass County Short-horn Breeders, Pleasant Hill, Mo.
May 6—T. W. Harvey, Polled-Angus, Kansas City, Mo.
May 8—Miller & Roddick, Herefords and Polls, Kansas City, Mo.
May 13, 14, 15—Jackson County Short-horn Breeders, Kansas City, Mo.
May 18 and 19—Jas. Richardson, Short-horns, Kansas City, Mo.
May 20—Powells & Bennett, Short-horns, Independence, Mo.
May 22 and 23—Jas. E. Richardson, Kansas City, Mo., Short-horns.
May 28—Leavenworth Short-horn Breeders' Association.
June 3—Col. W. A. Harris and the Giffords, Short-horns, Manhattan.

HORSE-BREEDING--PRIZE ESSAY.

Among the prize essays recently published in the *National Stockman*, Pittsburgh, Pa., is the following by H. H. Cunningham, Steubenville, Ohio:

The improvement of the horse has probably received more care and attention than that of any other domestic animal; and the effort to reduce his breeding to an exact science, while not by any means successful, has gained as much in practical results as in every other branch of stock breeding. The various uses for which a horse is wanted, and to which he is applied, make a greater call for variation in his make-up than that of any other animal; and in consequence there are more factors involved in the problem of his breeding than in the breeding of any other stock in common use. The hog is wanted for his meat alone, and in his breeding one point alone is aimed at—the greatest amount of meat at the least cost. The sheep has mutton and wool as the sole aim of its owner. Cattle are applied to a wider range of useful ends; but cheese, butter, milk and meat comprise the sum of the breeder's objects. But the horse, with the many demands made upon him for assistance to his owner, and the numerous and varied uses to which he can be applied, each requiring an adaptation of form, of size, or of special training of muscles, of courage, staying powers and endurance—and these acquired to a great extent by special breeding—makes his breeding the most difficult task that falls to the lot of the breeder. To make the horse breeder eminently successful in his calling requires a high order of talent, or the endowment of a peculiar instinct; and to the possession of this latter gift is owing more by those who have succeeded in making marked improvements in any of the breeds of domestic animals, than to any other cause. But even to these the knowledge and experience of others, and the application of known laws of animal existence and development, are of more use than to any other. Experience has demonstrated that there are certain laws that govern the propagation and perfect development of animal life. In fact it is true that all the operations of nature are performed by fixed and inexorable laws, and it is to the knowledge and application of these laws that we are to look for success, and to their violation for our failures, not only as stock breeders, but as farmers or followers of other callings in life.

The first point to be considered in the breeding of a horse is to fix in your own mind an image of what you want to produce—that is, to have a specific object in view, and then work towards it, as well as you can with the materials at hand, making use of all the light you can get, in preference to working in the dark or at random. It is generally accepted as a result of the observation of all successful breeders, as well as others who have investigated the subject, that like begets like, or the likeness of some ancestor. This, if not absolutely true, is nearer to it than any other known truth, and is the foundation rock on which improvers of live stock must build, if they expect to succeed; and failure will always be the reward of those who neglect or depart from it in any considerable degree.

Accepting this as the starting point for success, the use of and advantage of the thoroughbred at once suggests itself. What we understand to be a thoroughbred is an animal whose parentage has been so bred through and for generations as to establish a fixity of type, and a prepotency for transmitting this fixed characteristic to other generations

with the least known variation. And it is well to note here that while the stud book is useful as a record of pedigrees, and is a proper and acceptable proof of purity of blood, it should not be the only standard of selection; as in addition to purity of blood, we should always require individual excellence in the animal himself. If for speed—performance by himself, his ancestors, and above all his progeny, should be made matter for inquiry and have due weight in the selection of both sire and dam.

The selection of a thoroughbred animal for at least one of the parents is desirable if it is possible to obtain it. If this cannot be done, the next best selection for a sire is a horse known to possess the qualities you desire, and if possible from a family distinguished by like qualities; and if he has been in-bred in the family he is all the more valuable, as his prepotency for transmitting his own qualities is enhanced thereby.

Look well to soundness, as all blemishes and unsoundness, unless the result of accident, are as likely to be transmitted as any other characteristics of the horse. But if I had a choice between horses otherwise equal, I would reject the one with accidental blemishes or unsoundness, deeming it much the better course to pursue. His powers of endurance should also be known. And do not neglect to inquire carefully into his "mental and moral" endowments, for vices and the want of good "horse sense" are as much the heritage of the equine as the human race, are as transmissible as his physical conformation, and go as far in making up his value. If the best sire obtainable is not perfect in all of his parts (and few are), see that those in which he is most at fault are not the same points in which your mare also fails; for in such a case the defect would not only be likely to be transmitted, but would probably be exaggerated in the offspring. A point in which your mare is deficient would on the contrary be benefited, if not bred out, if the sire was at fault in the opposite direction.

I believe it to be an advantage to select a stallion rather under than above the average size in the class to which he belongs, and, above all things, I would avoid an overgrown specimen; for in such an animal the growth is abnormal. Size has been attained at the expense of more desirable qualities, and would tell unfavorably in the offspring. The possession of a few points should always be insisted on in the sire and can be found in all breeds of horses. These are a kind disposition, tractability, plenty of vitality, energy and activity, or ease and grace in movement. No mere physical beauty will compensate for dullness, sluggish movements or vicious disposition, or even a stubborn one. A horse full of animal life and energy is almost certain to transmit these qualities, even when bred to sluggish, stupid mares, while one of an opposite nature is likely to beget his own character even with a mare of opposite disposition, and is "dead sure" to do so with one of his own temperament.

Second in importance only to the selection of the sire is that of the dam; and if the object in breeding is to obtain the highest possible results, to approximate as it were to absolute certainty in breeding, it is of equal, if not of greater importance, than the choice of a sire. The best results in breeding race horses, as shown by race winners (and that is the crucial test of the breed) have been obtained by breeding winning mares to winning sires themselves the progeny of winners. But as in common practice we are compelled to use such mares as we have, the best thing to do under the circumstances in which we are placed is the proper thing to do. And in this regard I would simply say to breed only from sound mares, and of proper age, neither too old or too young. I would breed no mare under five years of age, or over eighteen, as a general rule, although I see no reason for applying it in all cases, as much depends on the individual animal. Some mares develop earlier than others, and old age comes on much sooner in some instances than in others; and this being the case, I would suggest an intelligent application to the above rule. Old mares, or those afflicted with unsoundness, or transmissible blemishes, or those of bad form, and likely to perpetuate it in their offspring, I would either not breed from at all, or would breed to a jack, and obtain an animal more profitable to myself than a horse from such a dam, and which would not transmit to its offspring through generations to come the undesirable traits of its maternal ancestor.

It appears to be an opinion generally conceded by physiologists that the men-

tal and physical character of the offspring is determined by the mental and physical condition of the parents at the moment conception takes place. Conceding this to be true (and the weight of evidence inclines that way), we have a light to guide us that should not be neglected; and the matter of the condition of both animals at time of copulation becomes an affair of no small importance. Here reason and common sense teach us that both should be in the highest possible condition of health, and the mental condition a normal one, free from excitement or irritation. The highest condition of health, as well physically as mentally and morally, in the human subject, is obtained by regularity in diet and exercise, pure air and wholesome food, temperance in all things, and freedom from excess in any way; and what is true of men is equally true in regard to all other animals. In fact, is a law of animal existence.

It follows then that all stimulation of either sire or dam is injurious. In point of fact it is one of the principal causes of poor progeny from good horses, that they are stimulated beyond their natural limit while on the stand, are themselves in an unnatural condition, and must of necessity transmit their deficiencies. A stallion for stud purposes should at no time have any other treatment than good grooming, regular and abundant exercise (but not carried to the point of exhaustion) and pure food and water, regularly administered. The food should be of wholesome character, and given in such quantities as experience shall teach you suits his individual wants, and never to the point of cloying his appetite. He should be allowed to serve no more mares than he can attend to without visibly depressing his energies. This is his natural limit, and he should not be pushed beyond it. To do so is an injury to the horse, his offspring, his owner and his patrons.

It is a very common thing that a horse is injured by too early use in the stud. A horse is not fully matured until six years of age, and until then is not in the full possession of his powers. This is the time nature points to as the one at which the best results are to be looked for. His use before this period should be sparing, and the utmost care should be used not to weaken his powers. The sterility of horses overtaken while of immature age is common, and can never be cured; and the inferiority of the offspring of such horses is everywhere to be seen, if you take the trouble to observe and investigate. The progeny of such a horse will be noticed to deteriorate as the season advances. Those begotten early, while he is in full vigor, will excel those of a late date, when he begins to fail.

The treatment of the dam while in foal is the next thing in order, and is a matter of no small moment to the future well-being of the foal. Good shelter and quiet quarters, safe from injury or annoyance from other animals, moderate daily exercise, a regular supply of healthy food, and access to water, are the principal requirements of a brooding mare. A variety of food is better than confinement to one or two articles of diet, avoiding always the putting on of too much fat, as that is likely to result in a colt that will be weakly, if not deformed, at birth. Also avoid falls, slipping on the ice, undue exposure to changes of the weather, and over-exertion, as these are fruitful causes of abortion, and are dangerous both to dam and colt. It is seldom that a mare needs any assistance at parturition, but when needed it should be promptly and intelligently given, as on this depends its success.

The care of the colt from birth to an age at which it becomes of use is next in order. Moderate work for the dam, with generous feeding of milk-producing food is necessary, being careful not to over-work or over-heat her, and if possible avoid all cause of irritation or great excitement. This is about all that will be needed as regards the dam. The colt will soon begin to nibble at the grass, or eat from the box with his mother, and should be encouraged to do so. He should be trained to the halter when a few days old, and taught to lead and to stand hitched, using a halter so strong that he cannot break it, and tying him so securely that he cannot untie the knot, teaching him thus at the outset to surrender himself to the will of his master—a lesson easily taught and never forgotten, if he is always handled right afterwards. At five months old he should be allowed with his dam only at regular intervals, being either tied in a stall, or, what is better, turned loose in a roomy box stall, with regular allowance of feed. Crushed

oats with hay will do, but green food would be better. At six months he should be removed entirely from his mother, and the process of weaning made complete, the previous month's treatment being intended as a preparatory course to avoid too sudden a change in his habits of life. Good hay and oats is all that is needed for the first winter, making a liberal use of bran and oil-meal to keep his bowels in proper condition. And this is a point that should be carefully noted, as costiveness is the fruitful parent of many ailments that afflict him in his first year.

Oats is pre-eminently the food for the growing horse, and should always be used when obtainable, if you want to get the best results from him. A colt should be so fed and handled as always to be kept growing and thriving, without any checks either from want of food, food of poor quality or unsuitable to his needs, or from sickness. Another extreme should always be avoided, and with as much care as poverty of flesh; and that is excessive fattness, which usually occurs from too much fat-producing food, excessive feeding, or want of exercise. Fattness in any animal means disease, not health, and the worst of all places is to find it on the horse. Lay on all the muscle you can, but never allow yourself to be deluded into the folly of mistaking fat for it. The best of all places to raise a horse is in a pasture with running water, with a comfortable stable where he can go in and out at pleasure, with such feeding in kind, quality and quantity, regularly given, as will keep him in growing condition at all times. If not so situated as to command the above conditions, you can modify them to suit your case, always taking into consideration the advantages secured by the above plan.

Security from accidents, healthy food, regularity in feeding and opportunity for exercise, are the main requirements of the growing horse; and none of these can be dispensed with in safety. Having grown a good horse, his value in market is determined by his education as much if not more than by his breeding; and this is a point never to be slighted. A horse should never be broken, using that word in its general acceptance by horsemen. He should be taught to do whatever is required of him, beginning at an early age, and persisting with all gentleness and patience, until all you want him to know has been instilled into him, and in such a way as never to worry, fret or frighten him, arouse his temper, or provoke him to resistance.

BERKSHIRE HOGS.

My herd now numbers about Forty Breeding Sows and Four Boars, including representatives of the best families of the day, and also prize-winners at the leading shows of this country, Canada and England. I have now in use in my herd sows that won in England in 1883, 1882 and 1881, and descendants of noted prize-winners previous to that time. The principal boar in use in my herd at present is "Duke of Monmouth" 11361, who won in 1883 the first prize at four leading shows in England, including first at the Royal Show, and also first prize at two leading shows in Canada. He thus won six continuous first prizes without being beaten, a like record I believe never attained by any other boar. I paid \$400 for "Duke of Monmouth." He is a splendid breeder, an animal of great constitution and comes from the same family as my old boar, "Lord Liverpool" 221, for whom I paid \$700, and who is now almost eleven years old and still alive. I have now a splendid lot of pigs from three to six months old, the bulk of which are got by "Duke of Monmouth." I would also spare a few of my sows, young or old, when in pig, and part of my breeding boars. I do not advertise prices as low as the lowest, for I cannot afford to sell as low as those who bought a cheaper class of stock to start with, but my prices are reasonable and within the reach of all who know the value of first-class stock. My herd of Berkshires show as much size as hogs of any breed, and I am sure I can show more quality, activity, constitution and size than is combined in any other breed of hogs. Almost if not every prominent herd of Berkshires in the West contains representatives from my herd, and this alone, considered in connection with the many prizes I have won for ten years past at our largest shows, proves beyond a doubt the quality of stock I am producing from year to year. No breeder of any kind of hogs in the United States or Canada has for several years past bought and retained in his herd so many valuable animals at an equal cost as I have. I have issued a new catalogue this season containing the pedigrees in full of my herd and a limited description of each animal, together with a complete list of prizes won for several years past. This catalogue I will mail free to all who feel interested enough to write for it.

I am also breeding High-grade Short-horn Cattle and Merino Sheep. Have now about 100 good young rams for sale.

I have reduced rates for shipping. All parties visiting from a distance will be met at the train, if notice is given in time.

For prices or any further information, address

N. H. GENTRY,
Sedalia, Mo.

In the Dairy.

The Quality of Cheese.

A correspondent of the London *Agricultural Gazette* has the following very sensible remarks on cheese making and the comparative merits of old and new cheese. He says:

The sensible letter by an "Ex-Cheese Merchant," on the subject of Scotch cheddar cheese reminds me that criticism on and contrasts between Scotch cheddar and Somersetshire cheddars may very well be applied to other descriptions of cheese besides that made on the cheddar principle. There is a prevalent opinion in the public mind that varieties of quality in cheese arise solely from varying degrees of skill in the makers. It seems to be generally assumed that, given the same season of the year and the same management, milk made into cheese in one place will give like results with milk made into cheese in another place. This is by no means the case, and I am inclined to think that the specialty in Scotch cheddars of being "excellent carriers," alluded to by an "Ex-Cheese Merchant," arises from the fact that the northern climate and the northern herbage produce milk inferior in butter fats to the milk which is produced in the true home of the cheddars.

Much as I disagree with some of Archdeacon Denison's criticisms on modern cheese-making, I am convinced that he is right when he claims for the cheddar district in Somersetshire an "inherent capability" for a special manufacture denied to other localities. There are also other reasons besides those of climate and soil, more within the control of the cheese-maker, which, from time to time, cause that different qualities of cheese are turned out on the same farm, even when the mode of manufacture has been unaltered. Having now made cheese from the same land for nearly thirty years, the temporary effects which directly arise from the food which the cows eat, and the permanent effects which indirectly arise from the treatment of the pastures, have often come under my notice. I will say, in passing, that I am not at all surprised to find that impurities in milk are charged to the use of silage. I will go further, and say that I should be greatly surprised to find that the constant and exclusive use of sour silage could ever give a pure flavored milk.

I remember well, some fifteen years ago, that a top dressing of mineral superphosphate and nitrate of soda applied to some twenty acres of cow pasture, gave an added richness to the milk that resulted in a slightly impure flavor in the cheese. The top dressing was quite successful as a durable improver of the grass, but it did injure a little the quality of the season's make of cheese. But the main lesson, which the experience of 29 years has taught me, is this: Pastures constantly enriched by added fertility, not only produce milk constantly increasing in richness, but the milk itself gives curd not only in greater quantity, but of greater fatness. In actual result, the cheese now made is ready for the market much sooner than that made during the earlier years of the period named, although the system of manufacture has been pretty much on the same lines.

This early maturity seems to me an unmixed advantage. I am quite prepared to grant that the public taste seems to me to have altered much since I first began cheese-making. It has altered still more since the beginning of this century. Our fathers and grandfathers kept over the winter the main bulk of the cheese made in the previous autumn; consequently the cheese then eaten by the public was a good many months old, very often a year old. Twenty years ago the cheese made from April to midsummer on this farm did not get into consumption before the middle of August. As a maker of cheese I have, with great pleasure, of late years, accommodated myself to the taste of the public. The public asks for new cheese in June, and even in May. What is more, the public seems to me to be turning its back on old cheese, when it can get new. Certainly, I, for one, shall not keep my cheese until it is old, and sell it at a poor price, when I can sell it new at a better price.

Archdeacon Denison is right in preferring old cheese for his consumption. I think that there are few articles of food at once so wholesome and nutritious as fine old cheese. For myself and for my family, old cheese is always re-

served. Still I do not think early maturity in cheese is necessarily a fault, like that which is generally associated with the saying, "soon ripe, soon rotten." If the manufacturing is regular and the curing perfect, cheese may be put on the market either new or old. Always supposing that its keeping is so managed as to fit it for sale when offered, the same dairy may turn out both fine old cheese and fine new cheese. If the public refuse to pay the price which old is intrinsically worth, no one will keep old cheese for sale.

A good test on grass, and the feeding of grain night and morning, to a herd of Jersey cows, would be a source of valuable information.

Do not sneer at "fancy" farmers. They pay high prices for good stock, and are bringing to this country the best to be found elsewhere.

So closely are the Jerseys being bred that a single line of ancestry answers for nearly all of them. And yet they continue to improve in yield.

Canada cheese beats New York cheese half a cent a pound in the New York market, simply because it is a reliable article. Honesty is the best policy, in cheese-making, as in everything else.

Major Brooke says, in the *Rural Home*, that more cherries, berries, peaches and grapes, and less pie, cake and meat, would lessen pain, prolong life, and greatly increase the mental and physical vigor of the race.

The Duty of State Legislatures.

Legislatures in every State should regulate the sale and use of the many poisons resorted to by women in their desperation to obtain a beautiful complexion. There exists in Dr. Harter's Iron Tonic every requisite to accomplish the object without injuring health or endangering life.

Too many, in breaking their horses, put them immediately at work. This custom, while effective, destroys somewhat the temper and action of a horse. The most humane and profitable course to pursue is to make the work light at first, gradually increasing it until the full capacity of the horse is reached.

It is Dangerous to tamper with irritating liquids and exciting snuffs. Use Ely's Cream Balm, which is safe and pleasant and is easily applied with the finger. It cures the worst cases of Catarrh Cold in the Head and Hay Fever, giving relief from the first application. All druggists have it. Price 50 cents. By mail 60 cents. Ely Bros., Owego, N. Y.

I have been bothered with catarrh for about twenty years. I could not tell how many different remedies I have tried, and none seemed to reach my case like Ely's Cream Balm. I had lost my smell entirely for the last fifteen years, and I had almost lost my hearing. My eyes were getting so dim I had to get some one to thread my needle. Now I have my hearing as well as I ever had, and can see to thread as fine a needle as ever I did, and my smell is partly restored, and it seems to be improving all the time. I think there is nothing like Ely's Cream Balm for catarrh.—Mrs. E. E. Grimes, 67 Valley St., Ren drill, Perry Co., Ohio.

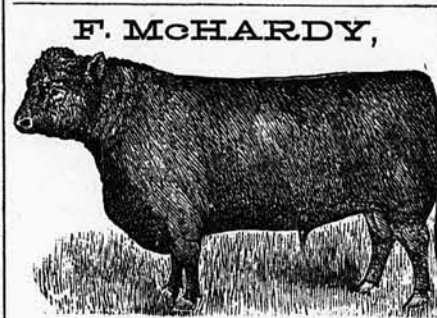
Mt. Pleasant Stock Farm, Colony, Anderson Co., Kansas.



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. Carwardine, J. B. Green, B. Rogers, W. S. Powell, Warren Evans and F. Turner. The bulls in service are "FORTUNE," sweepstakes bull with five of his get at Kansas State Fair 1882 and 1883; Imp. "Lord Wilton" bull "SIL EVELYN," own brother to "Sir Bartle Frere," Imp. "DAUPHIN 18th," 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.



F. McHARDY,
Breeder and Importer of
GALLOWAY CATTLE,
Emporia, : : : Kansas.

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

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.

T. M. MARCY & SON, Wakarusa, Shawnee county, Kas. We now have 116 head of recorded Short-horns. If you wish a young bull or Short-horn cows do yourself the justice to come and see or write us.

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

W. M. D. WARREN & CO, Maple Hill, Kas., importers and breeders of Red Polled Cattle. Stock for sale. Correspondence solicited. R. R. station, St. Marys, Kas.

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

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

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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.

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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.

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Registered Merino Sheep, Bronze Turkeys, Light Brahmas and Plymouth Rock fowls. Eggs for hatching. Catalogue free. R. T. McCulley & Bro., Lee's Summit, Mo.

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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.

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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.

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BRONZE TURKEY EGGS—\$3.50 per 12. Our Tom weighs over 40 pounds. Plymouth Rock eggs, \$1.50 per 13. H. V. Fugley, Plattsburg, Mo.

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

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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.

ONE DOLLAR per thirteen for eggs from choice Plymouth Rock fowls or Pekin ducks. Plymouth Rock cockerels \$2 each. Mark S. Salisbury, Box 331, Kansas City, Mo.

S. R. EDWARDS & BRO., Emporia, Kas., breeders of high-class Plymouth Rocks and Partridge Cochins. Eggs, \$2 per 13. Correspondence cheerfully answered.

RIVERSIDE POULTRY YARDS.—Plymouth Rock and Partridge Cochins fowls for sale, and eggs during the hatching season. Watson Randolph, Emporia, Kansas.

GROUND OYSTER SHELLS FOR SALE. Five pounds, 5 cents per pound; 25 pounds, 4 cents per pound; 200 pounds, 3 1/2 cents per pound. It is the best egg-producer known. Give it a trial and be convinced of its merits. Also Pure Plymouth Rock Eggs for sale—\$2 for 13; \$3.50 for 26. G. H. Flintham, 71 Kiene avenue, Topeka, Kas.

MISCELLANEOUS

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

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THE LINWOOD HERD

SHORT-HORN CATTLE



IMP. BARON VICTOR

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

Stock Show and Sales.

Special correspondence KANSAS FARMER.

For several years past A. H. Lackey & Son have been making public sales of Short-horn cattle at Peabody, Marion county, Kansas, with considerable success. The energy and enthusiasm of this firm supplemented by their success has encouraged other farmers and breeders to embark in this profitable industry as breeders of improved cattle, so that to-day Peabody has become one of the most important and prominent stock centers for breeders and feeders of cattle along the line of the A., T. & S. F. railroad. It will be well for every reader to note one fact in this connection that has been very influential in the accomplishment of these important results, so desirable for every part of Kansas, and that is tame grasses and stock feeding. This should be a source of encouragement to every farmer in Kansas to go and do likewise. Peabody is situated 184 miles in the interior of the State and has a larger acreage of tame grass and a greater number of cattle and swine are fed for market than at any other point in the State known to the writer. During the past winter 2,200 cattle have been fed. Those already shipped have averaged from 1,200 to 1,400 pounds. The night I arrived to attend the show and sales, 100 head were shipped to Kansas City that made an average of 1,448 pounds. To feed this lot of steers 132,000 bushels of corn was required besides that fed to several car-loads of hogs and over 7,000 sheep that were fed in this vicinity. Think what a home market for corn and tame hay and at paying prices for the producers. The tame grasses grown here are orchard grass, timothy, red clover and alfalfa; and some or all may be found on nearly every farm in the vicinity of Peabody.

The writer could not observe these facts and let them pass unnoticed because they teach too valuable a lesson to Kansans. However, the object of the visit was to attend the combination sales advertised by A. H. Lackey & Son, Henry Blakesley, A. J. Hesson and others, in connection with the spring meeting and show of breeding stock under the auspices of the Marion County Agricultural Society. This venture of making an exhibition of breeding stock in the spring was a new departure for Kansas and must commend itself to other agricultural societies. There was on exhibition in the horse department in the general-purpose class one stallion by Scott Bros., one by Frank Island, two by Geo. Shoe, Newton, and one by E. Slaymaker; one mare by Steve Goodrich, and mare and colt by J. W. Wibley. Roadsters and trotters—one stallion, Oliver Goldsmith, by R. B. Graham; one stallion by L. S. Tucker. Normans—A. D. Kern one stallion; J. D. Webe, Hill-boro, one stallion, mare and colt. Clydesdales—Robert Ritchie, two imported stallions, and Wm. Ward one stallion.

Two pens of Merino sheep were shown by Charles Stern, Peabody. Henry Blakesley showed fifteen head of Poland-China swine and A. H. Lackey & Son forty head of Berkshire. In the speed ring there were eleven entries.

In the cattle department nine head of Holsteins were shown by Charles Stern and F. H. Kallack. Six head of Jerseys by S. F. Letton, Paris, Ky., and C. Kizer & Son, Emporia. The Herefords numbered fifteen head and were owned by J. S. Hawes, Colony, except one owned by C. Kizer & Son. Twelve excellent Galloway cattle were shown by F. McHardy & Son, Emporia. Seven Short-horns were exhibited by Henry Blakesley and Abilo Hunter in addition to 100 head on the grounds for sale.

THE SALES.

The combination sale included 100 Short-horns, mostly owned by A. H. Lackey & Son, and twenty-five Herefords, Jerseys and Holsteins. Col. S. A. Sawyer did the auctioneering, but the attendance of buyers was not large enough to realize very good prices, and as a result no Jerseys or Herefords were sold and but fifty-two Short-horns, one Holstein and one Galloway.

Fifty-two Short-horns sold for \$5,865, an average of \$112.80; twenty-seven females made an average of \$100, and twenty-five bulls an average of \$126.80. The following "plums" of the Short-horns brought good prices and went to the lucky purchasers as follows: May 12th, a red Rose of Sharon heifer, went to Capt. J. E. Brown for \$305. The best bull sales were as follows: Ravenswood Lad, 40 months, a Flora, went to

B. F. Dole, Canton, Kas., for \$390. Wood-hull Duke of Clarence, of the Beauty tribe, sold to J. R. Salmons, Larned, for \$200. Captain Kidd, 16 months, a Flora, Col. Bailey & Sons, Lapland, Kas., \$255. Blythesdale Prince, 3 years, a Lady Gale, to J. G. Morse, Peabody, \$130. Barmpton's Pride, 30 months, a Cruickshank, to C. S. Elcholtz, Wichita, \$475. Drand Duke of Bourbon, 6 years, a Young Mary, to J. M. Brehm, Hutchinson, \$195.

Col. Bailey & Sons, Lapland, Greenwood county, had a car-load of Short-horns for sale, but owing to their poor condition and not being catalogued, few sold and at losing prices.

Goldburg, a Holstein bull calf, owned by F. H. Kallack, was sold to Geo. Cooper, Peabody, for \$230.

F. McHardy, of Emporia, brought into the sale ring a 14-months Galloway, MacLeod 2d, which was soon knocked off to Bahntge & Kates, of Winfield, for \$750. He was as good a Galloway bull as ever graced a sale ring.

The sales of Short-horns were not entirely satisfactory, and as they were not all closed out, Mr. Lackey announced that he would hold another sale the last of June.

HEATH.

Cooked Food--Hogs--Sorghum.

Kansas Farmer:

I read an article in the *National Live Stock Journal* of March giving the test purported to have been made by Mr. H. Ginsback, of La Mars, Iowa, between cooked and uncooked food for hogs. The editor by his remarks seems to have some doubts as to the truthfulness of the report. I do not hesitate to believe the statement is correct. My own experience in former years taught me to believe that one-half the grain was saved by cooking both for hogs and cattle, but I also found that steaming was much better and less trouble when properly arranged. There is a decided advantage in the healthful condition of the stock as well as in the saving of the grain. It is claimed by most people that it is expensive and takes too much time, but I have learned that anything that is worth doing at all pays for doing well. I have also found that there is as much made and made easier by a correct system of saving as there is in making at a waste or wasteful making. If two hogs will fatten on the feed of one hog it would not take many of these same hogs to pay for the steaming apparatus, and then all the stock on the farm gets the same benefits. The team looks well and feels better; the cows give more milk and butter; the fowls lay more eggs and the washings are done with one-half the labor.

On the same page of the *Journal* I also read a report that some sensible hog raiser made at the Indiana Swine Breeders' Association held last January with regard to the care of hogs. It brought to my mind the Indiana man who swept off all the premiums at our State fair some years ago and he may have had a hand in the report. Good up-land ranges or lots with warm, clean beds and sleeping places, and above all plenty of fresh water, cool and fresh from the well every day or several times a day, and not require them to drink the filthy, unwholesome water about their wallowing places or stagnant pools full of parasites and germs of disease, just because they are hogs.

If farmers generally would pay out more money for such reading and less for that of less value, they would know more about their own business without spending years and suffering innumerable losses to find it out. The great difficulty with most of us is we take too much on hand to do, and one branch or job is crowding another and we have no time to do anything in proper season or as it should be done.

It seems that hogs are destined to take the next run or boom, and it is well for those anticipating going into the business even on a small scale to post themselves on the subject of the best breeds and the best mode of feeding and handling. My opinion is that in the corn regions they feed too much raw corn and especially to pigs and brood sows, and another objection is, breeding from young stock on either side. I have seen but very few thrifty looking herds where corn lay round the yards for hogs to run to at will, and I have examined a good many herds in the last few months.

I have heard it claimed that sorghum created barrenness among animals, both male and female, but I think it is a mistake. I

have made it my exclusive feed since the 1st of September last, and especially to my hogs, with entire satisfaction. My brood sows have done finely, bringing fair litters and have an abundance of milk; in fact, I think it has the opposite effect on them, as I have no trouble in getting from two and a half to three litters within the year. While I am on the sorghum question, I will say that you made a mistake in the last number of the *FARMER* when you said that my favorite mode of curing was in the shock. I think it the poorest way and the most labor. My favorite mode is to pile it in large piles on the ground laying each armful across the other, tips up, until the pile is large enough, or let it remain on the ground as it falls from the raker.

W. J. COLVIN.

Gossip About Stock.

The Springfield (Illinois) Jersey Cattle Club has decided that none but A. J. C. C. animals shall be sold at their coming sale on the 27th of May.

J. S. Hidden & Co. and A. A. Young, Greenleaf, Kas., and S. T. Counts and W. A. Travis, Topeka, recently purchased some registered Holsteins from the Holstein Association, Iowa City, Iowa.

There is no better feed for young pigs, after they have learned to eat, than good threshed oats. If given dry and alone, the pigs will chew at them till they get all the kernels, but they will swallow little or none of the husks.

T. W. Harvey, Turlington, Nebraska, announces that on May 6th he will sell twenty choice Aberdeen-Angus females and ten bulls. He writes that he disposes of these to make room for a fresh importation now on the way from Scotland.

On April 23, 24 and 25, 200 head of high-bred trotting and saddle horses, brood mares, fast trotters, roadster, coach and family horses will be offered for sale at Lexington, Ky., by Messrs. Brasfield and Johnson. Send for their catalogue and attend the sale if you want this class of valuable horses.

J. A. Davidson, Richmond, Anderson county, gives the following: Hogs in this vicinity are all in good condition, but we are not having very good luck with early spring pigs. The cholera that was in places in southern Franklin and northern Anderson counties during the fall and winter seems to have run its course, has entirely ceased.

A Chicago dispatch dated April 3d, states: During the past week a large number of scabby sheep have arrived at the stock yards, the bulk of which, it is claimed, found their way to the Jackson street market in this city. One flock that had to be shorn before they left the West was so bad that they are now under the surveillance of the sanitary inspector at the stock yards.

Admirers of Short-horn cattle will be pleased to know that Col. W. S. White, Sabetha, Kas., proposes to offer at public sale a number of very choice Short-horns April 23, including some of his prize winners at the Kansas State Fair and the World's Fair at New Orleans. He has won enough money in premiums on his Short-horns to afford to sell cheap. Send for his catalogue and then go to the sale.

The third annual meeting of the Western Cattle Growers' Association was held at Dodge City last week. Upon comparing notes it was learned that upon the whole the losses on stock of the Association was not as large as many had supposed. It was proposed to unite with the Panhandle Association as a measure of economy, and arrangements were made to protect the Association's interests in the prospective Government operations in and about Oklahoma.

Thomas B. Wales, Jr., Secretary of the Holstein Breeders' Association of America, writes us: The statement made by sundry agricultural journals, that Holstein cattle will, in future, only be registered for members of the Association, is incorrect. The rule refers only to imported cattle. Any animal dropped in America, whose sire and dam are registered, can, as heretofore, be recorded, on payment of the usual fee of \$2. Volume III is now ready for delivery. Price \$4, and postage 35 cents.

The Shire and Clydesdale Association of Sedgwick county is the name of a new draft horse establishment located at Sedgwick City, Kas. The company is composed of E. L. Snyder, V. S. Waugh, A. J. Richardson,

and Daniel Wren, of Sedgwick City, and A. Fanson & Son, of Toronto, Canada. This enterprise will prove a benefit to southwestern Kansas. They report the sale of a Shire stallion to Messrs. Shriver & Clifford for \$2,500, and another to Wm. Wren, Marion, for \$2,450.

MacLeod 2d is the name of perhaps the best Galloway bull calf ever seen in the West. He was raised in Kansas by that "Galloway King," F. McHardy, Emporia. This young animal represents the very best Galloway strain of blood. He was shown at the stock exposition and sale at Peabody last week, and was sold in the auction ring to Bahntge & Kates, of Winfield, Kas., for \$750. Mr. McHardy has been handling this breed extensively and has now a few animals for sale and very properly advertises them this week. Don't fail to see this herd if you want Galloways.

Dave Fox, sheep and swine breeder, Wichita, writes us as follows: "Just a line to let you know that all the sheepmen in this county are not busted. Sheep generally in this locality I believe have wintered well. My own have never looked better at this season. Although the finger of scorn may be pointed at sheepmen I yet believe the business will pay well under good management. I am determined to make or break at the business. Our public shearing, the Arkansas Valley Wool Growers' Association, will be held at Wichita on April 18th."

Let every reader who intends purchasing a mowing machine this season, send for the catalogue just issued by the Eureka Mower Co., Utica, N. Y. The Eureka mower is worthy of investigation.

Oats and Sheep.

I have made a decided improvement in the wintering of sheep, by feeding them oats instead of corn. So far, there has not been a single case of scurvy (which is caused by indigestion and takes the form of constipation) or of diarrhoea, which is also the result of indigestion. The wool is more bright and glossy than when the sheep were fed corn. I am looking for more beneficial results from feeding oats when lambing time comes, as there will be less fever and inflammation of the udder. The more healthy condition of the ewes will undoubtedly cause the lambs to be stronger and more active at birth. This confidence is increased by the fact that I recollect a number of years ago giving a flock of ewes which were being fattened, two quarts of oats daily. Some of them proved to be with lamb and were not sold on this account.

These sheep did remarkably well, dropping their lambs in the winter. They had abundance of milk and the lambs were strong and healthy. It is well to know that oats are a nearer all food than corn, and if not quite so cheap they are so much healthier that it is unwise to feed corn with so little difference. If I had fed oats last year, instead of so much corn, it would have made at least \$40 in less difference in the income from my small flock. The annals of a lifetime caused by losing the little things is with me a great deal. It pains me, aside from the want of profit. My sheep this winter are a delight. I like to look at them. Their fleeces are all smooth, and the sheep are free from ticks, and seem so happy.

My sheep are all used to low their instincts in regard to exercise and outdoor exposure in good weather. They are always shut in nights and stormy days. They have taught me that they are fond of outdoors only when the sun shines and there is no wind. They will never stay out of their own accord when the wind blows, and always huddle up in the further corner of the stable if the wind blows in through the open door. It is the same law—none of our domestic animals like exposure to the piercing winds of winter, and it is a loss to compel them to endure such hardship. How bad farmers are to their own interest! How many thousands of dollars have been blown out of stock, especially sheep, which most people think do not need any shelter. A cheap, roomy building is all that is required, where they may be kept dry and away from the winds. Let me urge a lamb fever that such comforts are a necessity, if there is to be any profit in the keeping of sheep.

Sheep get cold easily and do not get over them. A very little irregularity will throw them off their feed, and a little excess will cause stomach troubles. They are so constituted that they get feverish from simple causes, and it has a most damaging effect on them. Losing wool is caused by fever, and too much corn will make this condition. It is difficult to feed a flock of sheep just right, as they eat together, and very likely the ones with naturally weak stomachs will eat more than they ought to. A careful flockmaster must watch for evidences of indigestion and fever and remove such ones from the rest, and feed them accordingly. There is more trouble with lambs the first winter than with older sheep. All of my breeding sheep and lambs were studiously kept out of the storms last autumn; in fact, they have not been wet for more than three months; and as a result of this care not one of them has a cough, nor is there a single one which has been ill in the least.—F. D. Curtis, in N. Y. Tribune.

About Wheat Growing.

The *American Cultivator* discusses the wheat problem seriously and says some good things. In considering the low prices of wheat, it says, it should not be forgotten that the world is always within a few months time of absolute scarcity of food. There are practically no great food reserves to be kept from year to year. That which we call reserve consists of only a few million bushels, not even enough to supply the world's demand for more than a few weeks at the farthest. It is the same with all kinds of food products. Should their production entirely cease, mankind would be brought to the verge of starvation in an incredibly short time. We never arrive at such a condition in these modern days, and there is no practical danger that we ever shall. Somewhere in the many countries where wheat is grown there will be a supply which, with more or less economy, will suffice for the world's needs.

Some economy in the use of wheat is always needed. Cheap as wheat now is large classes of people do not eat this best of the cereals because they cannot afford it. This fact is important because it insures a demand which stands ready to take all that is or can be offered, provided the price is low enough. The cheapness of wheat now is without doubt introducing this grain into consumption largely where it was used only sparingly before. It is probably placing wheat flour on the bill of fare of those who have never before eaten it. This is a step in the march of progress that will never be wholly retraced. There is no sign even now that the world's capacity for wheat consumption is less than it has ever been. We have simply, by accidental coincidences of good crops everywhere, outrun for a little time the active demand. Yet should we grow even 10 per cent. less wheat than we did the past year, there would be actual and much higher prices than now obtain.

Is not this what we are drifting to? Nearly all reports in this country indicate a considerable decreased acreage, estimated all the way from 15 to 30 per cent. The smaller reduction above named would, with a crop per acre equal to last year, reduce our supply by upwards of 75,000,000 bushels. Should any cause reduce the yield, the reduction would be much greater. It is easy to see that in the ordinary course of events the chances are many for decreased yields of wheat the coming harvest. As last year's crop was above an average on a larger acreage, there is scarcely a possibility that it will be exceeded. With a reduced yield to correspond to the average in late years, we might easily have a deficiency of wheat greater than we have ever exported. Such a result would be a national calamity. Without wheat and flour to export we could scarcely maintain the balance of trade unless by exporting specie. We should probably export some wheat in any event, but it would only be by raising the price so much as to diminish its use and cause much suffering.

This would be the condition of our own country with a diminished wheat product, now clearly among the possibilities of the next few months. It is quite probable that the reduced acreage acknowledged in the United States is common to all wheat-growing countries. Wheat is no lower here than it has been comparatively in all other markets. If low prices have decreased sowing here, it is likely that the same result has followed elsewhere. We know that such is the case in England, where, in fact, decreased acreage has been the rule for many years. Yet, as before remarked, the tendency in this country and everywhere else is toward increased consumption of wheat, a tendency which its present cheapness has undoubtedly greatly accelerated.

In view of these facts we can readily see the unwisdom of journals which, for the good of the farmer, have advised a large decrease in wheat production, because wheat at present does not pay. If it does not pay now there is, perhaps, all the better reason for believing that it soon will. At any rate, farmers are fully competent to decide as to decreasing acreage of crops which they find to be unprofitable, without advice from outsiders. Smaller sowings of wheat last fall are evidence of that if any is required. If advice was needed on the subject it were better found in exhortations to sow more rather than less wheat, in order to make up

a probable deficiency coming as the reaction against the present low values.

The truth is that advice either way is almost in the nature of an impertinence. That farmers have sown less wheat last fall than usual is not necessarily from choice but from necessity. Farmers are not always able to do what they would like. Plowing, fitting the ground and sowing a large area in wheat costs heavily, as every farmer knows. This cost is more onerous with winter wheat, because it is longer after the money is expended before it can be reimbursed. Except in the one item of seed wheat, sowing a large acreage costs as much as it ever did. Year by year we are finding it necessary on wider areas to use expensive commercial fertilizers for wheat production. No matter how well they pay in increased crops, the cost has to be borne, and it makes wheat growing more expensive than it was when new land rewarded the farmer with good crops for barely tilling and sowing.

Twenty-five years ago farmers in this country apprehended that the boundless plains of southern Russia, with soil practically inexhaustible, would monopolize wheat growing to the exclusion of our own product. It was said very plausibly that we could not compete with the cheaper labor of the Russian serf. We do not hear much about Russian wheat production now. If American harvesting machinery had not been introduced into Russia that country would not be able to grow a bushel of wheat for export. Those inexhaustible soils do not produce the crops they once did. Unless better systems of farming are adopted, not even improved machinery can make Russia a formidable competitor in wheat production.

At the present time, the believers in permanently low prices of wheat talk largely about the great resources of India and Australia. All we can say is, we are very glad to hear the facts. Wheat is an excellent commodity to have, and, unless better farming prevails, our home wheat demand is quite likely to increase as rapidly as our supply. It is scarcely probable that good farming will make more rapid progress in Australia and India than here, and upon better farming rather than the opening up of new fields for wheat production we must depend for the chief wheat supply of the future.

How a "Corner" is Worked.

The speculators in the grain markets often engineer a rise or decline in prices, almost entirely irrespective of the supply on hand or even of the crop prospects. Corn or wheat will frequently be quoted several cents per bushel higher for one man's deliveries than for other months. The newspaper reports may give the cause of these wide fluctuations as a "corner," a "gamble," or the efforts of speculators. Hence it may interest our readers to know how a "corner" in grain is worked.

Corners in grain markets are only possible when there is an excess of short sales. And, if one understands the theory and practice of short sales, he can readily understand the working of a corner. In regular business, when a man sells grain he actually has the grain to deliver, but in speculation a man sells what he has not with the hope of being able to buy and deliver the goods at a cheaper figure. But every bushel thus sold must be bought back at some figure, higher or lower, before the transaction is or can be closed. And right here is where the mischief comes in. In regular business, when a man sells anything that is the end of the transaction, but every speculative sale involves another buying transaction of equal size and amount. And this is called "selling shorts," because in such deals a man agrees to deliver what he does not yet own, and hence he is short or minus that amount of actual stuff and is compelled to buy it at some price. He can buy it the next day or he can defer it a month or longer if he chooses. The man who sold September corn short in August, must buy back all that he sold before the close of September, or pay the price difference in money.

During last August or before, an immense amount of corn was sold short in this market for September delivery. The price of corn at that time was thought to be higher than it would be when September came round. Wheat was so low, and the promise of the new corn crop was so good, that traders concluded there would be a drop of at least ten cents a bushel, so that they all rushed in to secure a part of the prospective profits. And if the market had been left alone they would have come out all right. But after millions of bushels had been thus sold for future delivery, some parties put their heads together and bought up all the cash corn in the elevators and then went into the market and bid up the price, taking all that was offered and still bidding higher for more. Very soon some of the shorts saw the market going against them and began to buy back at a loss what they had previously sold. This, of course, greatly increased the number of buyers and sent the market up faster. After the boom was fairly under way no one

dared to sell short any more, and the only corn obtainable after that point was reached was in the hands of the parties who were running the deal; hence they were at liberty to put what price upon it they pleased, provided they bought from day to day all the actual corn which came in over the railroads and all the speculative corn offered. The entire corn supply, therefore, was virtually locked up by the parties running the corner.

These sellers who filled in or bought back what they sold before the prices got too high escaped from the trap set for them with but little loss, but many others got mad and vowed they would not buy until they got ready. The parties running the deal could not force the delinquent fellows to buy until the last day of September, but they could force them to put up margin-money enough to more than cover all the difference in price between the low point and the high. Hence a corner always settles itself after a while into a tussle between the victorious longs and the mad shorts, and in this contest the price can be put up to any figure the first party decides upon. The situation and the deal are entirely at their mercy, and the shorts must eventually settle at the price fixed for them by their antagonists, or appeal to the board of directors to come to their rescue and fix a marginal price, which in this case, was successful, though it is not always so. Such, in plain and untechnical language, is a brief description of the famous corn corner of September, 1884.—*Chicago Journal*.

Cuts from barbed wire fence, cured with Stewart's Healing Powder.
No scar or gray hair, 50 cts a box.

This, That and the Other.

Hopes and regrets are the sweetest links of existence.

There never was a mask so gay but some tears were shed behind it.

The rays of happiness, like those of light, are colorless when unbroken.

The first grain elevators of America were built in Chicago eleven years ago.

Vain glory is a stimulus that pleasingly titillates our heart, and finally tears it.

Sickness is often the moral cave, with its quiet, its darkness, and its solitude to the soul.

A man that can be flattered is not necessarily a fool, but you can always make one of him.

Southern Russia is the chief source of the salt supply to the other governments of the empire.

The farm animals of Great Britain represent about one-half the total value of those of the United States.

The moa, or dinornis, was a huge bird of New Zealand, the largest specimens being three times the size of an ostrich.

The island of Ceylon and the kingdoms of Pegu and Burmah contain almost the only ruby and sapphire mines of the world.

James Watt congratulated himself that one of his steam cylinders only lacked three-eighths of an inch of being truly cylindrical.

The mountains round Great Salt Lake bear evidences of the existence at some early period of a much larger lake in the same locality.

A large amount of oil exists in the stormy petrel, and when fat, according to the Brunich, the inhabitants of the Faroe Islands use it as a lamp, obtaining their light from a wick drawn through the bird's body.

A collection of skulls from the southern hemisphere has been studied in England, the most notable conclusion reached being that some of the races of south Africa, Australia and the southernmost part of South America are remarkable for the smallness of their heads.

Bavaria has enacted a law forbidding the marriage of couples who do not possess sufficient means to maintain themselves, or who, during the previous three years, have received help from the public funds, or who have not paid their quota of taxes, or regarding whom there is reason to suspect that trouble will result to the household from the want of sobriety, economy or love of work.



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

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Importer and Breeder of Norman Horses,

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

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The Home Circle.

My Wife and I.

We're drifting out to the isles of peace;
We let the weary world go by;
We sail away o'er summer seas,
My wife and I.
We bear to rest in regions fair
The faltering spirit of the mind;
The kingdom wide of toil and care
We leave behind.

The traveling nations rise and fall,
They lift the palm, they hear the rue;
Yet bliss is this, to know through all
That one is true.
They perish swift, the gala flowers,
The lauding people love to fling;
Waits silence, dearth and lonely hours,
The once-crowned king.

But never shall he faint or fall
Who lists to hear o'er every fate
The sweeter and the higher call
Of his true mate.
I hear it wheresoe'er I rove;
She holds me safe from shame and sin;
The holy temple of her love
I worship in.

We're drifting out to realms of peace;
We let the weary world go by;
We sail away o'er summer seas,
My wife and I.
We sail to regions calm and still,
To bring in time to all behind
The service of exalted will,
Of tranquil mind.

The fading shores grow far and dim,
The stars are lighting in the sky;
We sail away to ocean's hymn,
My wife and I.

Temperance and Politics.

"There are, and can be, in the very nature of things, but two great political parties in the nation. The one finds its idols in the past. It looks to a demagogue of a century ago as the exponent of its political faith. It fondly adores doubtful dogmas long ago outworn in the rapid growth of the American Republic, and this to oppose all change, and consequently all growth—for growth is always a change. The other is the party of progress, of enlightenment, of civilization. It believes in holding fast to all political ideas that experience has proved sound and good and in rejecting those which we have outgrown."—*Toledo Blade*.

I agree with the above expression, but we differ in its application, inasmuch as the Republican party has rejected and opposed the reformation demanded by the best class of her constituents, and the result is the formation of a third party based upon the principles of moral reformation, leaving the old party an overwhelming majority, whose motto is rule and ruin—a majority who by the nature of their policies are aliens to patriotism, enemies of morality, whose chief aim is the destruction of all that is noble and good.

And do the representatives of this fast-decaying party call upon the Prohibitionists to return to this element of destruction? Can it be that they anticipate such a result? Impossible! "The die is cast." We do not put our hand to the plow and look back. The motto of this grand army of prohibition is onward, and as we advance we gather strength, and will continue to do so as long as there is one left (who has a spark of moral principle to kindle) in either of the old national parties. This is inevitable as a decree of fate. Their dissolution will be effected, leaving in their element of destruction, that, having no principle, will unite in self-defense—a satanic host whose nature is the very antipode of all that is good, destitute of moral principle, devoid of conscience, treacherous, deadly. This is the foe which the solid South and the solid North, united in one solid phalanx, must meet in vital conflict. What this conflict will be, God only knows.

Shall we presume to lift the veil and look for a moment on the national conflict with the combined powers of evil? A monster giant to whose strength the slave power was as an infant. From ocean to ocean, from every home where the destroyer has left the impress of his treacherous footsteps, there ascends a cry of sorrow, a prayer for succor. No foreign invader ever left such a universal trail of destruction—broken homes, broken hearts, ruined fortunes, ruined characters everywhere.

Shall we imagine intemperance to be a deep, turbid river, flowing through our country, draining every hill and valley (as Rev. G. S. Hubbs so fitly describes it), bearing upon its bosom thousands of helpless victims? Shall we imagine the grand army of temperance whose united voice obstructs this furious current, and that, like the Dead

Sea, it masses its strength until it stands a wall of iniquity reaching from the bottomless pit to the clouds above, casting its dark, foreboding shadow on all around? Imagine this great army of temperance go down into the depths of that shadow. What might befall them there? Have faith, O, doubting hearts, for as the Children of Israel passed through the Dead Sea, even so will this grand army pass through the treacherous gap and emerge into an epoch of glorious nationality, like unto the dawn of the millennial morning. Then, "A nation shall praise him." Then will this wall of intemperance, by the power of its own specific gravity, burst its restraining bonds, and rushing downward, bear with it its victims into the great gulf beyond. And with it will be washed out forever all the bitter memories of the rebellion.

Shall we lift the veil once more? Behold, where once flowed the "Mississippi of Intemperance" now flows a stream of pure, living water, amid fertile fields, and the voice of its waters is blended with the hum of industry, the song of peace and national prosperity.

M. J. HUNTER.

A Contented Mind.

Having carefully read the paper read by Mrs. M. D. Morse, I would like to say a few words also. That line, "A contented mind is a continual feast," is very true, I think. A person who is always contented is generally happy; happy because, being contented, they are not forever complaining of how much they have to do, and do not fret because some other woman has a nice dress, or can keep more servants. In all things they see beauty where perhaps none other can, and their home is always happy because, however humble, it is home, and they try to make it so in the fullest sense of the word.

And as to having time to read, there are so many times a woman can take up a paper and read, it may be only a little at a time, but then you have something to think of while working. I have known many young ladies who wrote and received many letters until after marriage, then, one by one, they would drop off until she would have only one or two correspondents. When asked the reason, they would reply that they had no time to write. Now, I do not see why they could not find time. And there is much enjoyment in writing to and hearing from one's friends. I think if they would try to keep up the habit of writing that it would prove a pleasure.

Mrs. Hunter, if you have lived on the prairies, then you also know what comes after the gloomy days, days when the sun shines, the sky is blue, the meadow-larks singing, and down by the river you hear the harsh cry of the killdeer—just enough wind to wave the green grass; and as you look over the prairie you think how happy you are; and looking up at the sky you seem to feel that God is nearer to you than in the crowded cities, and you cannot help but thank him for your home upon the prairies.

BRAMBLEBUSH.

Household Recipes.

Graham Pudding.—One and one-half cups of graham flour, one-half cup of molasses, one-fourth cup of butter, one-half cup of sweet milk, one egg, one teaspoonful of soda, one cup of raisins seeded. Add spice and salt to the taste, and steam three hours. Serve with lemon sauce.

Oat-meal Muffins.—One cup of oat-meal, one and one-half pints of flour, one teaspoonful of salt, two of baking powder, one tablespoonful of lard, two eggs, one pint of milk. Sift together meal, flour, salt and baking powder; rub the lard in cold, and then add beaten eggs and milk.

Beef Balls.—If you have cold roast beef chop it fine, season with pepper and salt, add one-third the quantity of bread crumbs, and moisten with a little milk; with floured hands mould the meat into balls, dip them in beaten egg and then in cracker powder and fry in butter; garnish with parsley and serve.

Cake for Dessert.—A nice cake for dessert is made of three tablespoonfuls of flour, three tablespoonfuls of sugar, the yolks of four eggs and two tablespoonfuls of milk; mix smoothly and add the whites of the four eggs beaten to a stiff froth and the juice of half a small lemon. Bake in a buttered pan in a hot oven.

Soft Gingerbread.—Four and one-half cups of flour, one of sugar, two of molasses, one of butter, two of sour milk, two eggs, one tablespoonful of soda dissolved in a little hot water, one tablespoonful of ginger, two of cinnamon and one of cloves. This makes two large loaves. It is very nice to add a large cup of seeded raisins.

Home Suggestions.

To cure and heal a running sore, apply alum water twice a day.
For nose bleed, get plenty of powdered alum up into the nostrils.

Some ingenious mothers make very neat caps for the small boys out of the pieces of their suits. Lined with red flannel and neatly stitched, they save buying at the store.

A simple remedy for neuralgia is to apply grated horseradish, prepared the same as for table use, to the temple when the face or head is affected, or to the wrist when the pain is in the arm or shoulder.

Covers for small tea trays are scalloped around the edge and then button-holed with scarlet, brown, or blue, with little figures in the center, or corners are worked in the same color that is chosen for the border.

A good method to clean painted walls is to pulverize some Bath brick, and after rubbing a little soap upon a soft woolen cloth, dip it in the brick, and with it rub the walls. This will remove dirt without detriment to the walls.

It is permitted to paint a bamboo stalk, or a crooked pear or apple branch, covered with blossoms, on a cracked looking-glass, so as to hide the unsightly crack and retain the glass for use. Upon a perfect glass flower painting is not considered artistic, but the blossoms and birds are to be kept within the frame.

There is nothing better for a cut than powdered resin. Pound it until fine, and put it in an empty, clean pepper-box with perforated top, then you can easily sift it out on the cut; put a soft cloth around the injured member, and wet it with cold water once in a while. It will prevent inflammation and soreness.

To cure a felon, fill a tumbler with equal parts of fine salt and ice; mix well. Sink the finger in the center, allow it to remain until it is nearly frozen and numb, then withdraw it, and when sensation is restored renew the operation four or five times, when it will be found the disease is destroyed. This must be done before pus is formed.

The way to make a screen for a bed-room out of a clothes horse is to nail a coarse canvas all over it at the upper and lower edge and between the folding, perfectly tight; on this paste a lining paper if you are going to make a scrap screen, or nail chintz over it. In this way all the interstices are filled up, and it will be quite firm between the bars.

A Cowboy at Church.

He was as fine a looking specimen of the Western cowboy as ever sinched a broncho, or threw a rope, and as he rolled into the *Graphic* office, with his big sombrero on one side, Mexican spurs jingling, and p-rsuader in his belt, we felt that nothing we could do would be too good for him. "Are you the religious boss of this ranch?" was the question with which he greeted us. We cheerfully answered in the affirmative, and as he rolled a cigarette with one hand, toyed with the ivory handle of his gun with the other, closed one eye and scanned the Taylor cylinder with the other, he continued: "You see I ranged over your last Sunday's campin' place, and concluded I'd take your advice and go to the preach house. The last time I was in a herd of that kind was back in the States, at an old-fashioned Methodist round-up in the woods, where the sky pilot fired red-hot perdition among the boys, and knocked his desk out in three rounds. Marquis of Queensbury rules, and made a grand stampede on the whole herd. Well, I was lookin' for some deal of that kind, and figured that I'd have a picnic with the boys. But I didn't. I got left on that the first turn o' the wheel. I waltzed into that gospel factory with my sombrero over my eyes, but off it came on the first jump. I had on my steels, and I hadn't gone more than half way up the chute till I tripped up on the skirts of a slick looking Jersey heifer who was goin' in ahead. I got myself together and squatted as quick as I could. I jest felt like a Texas maverick in a herd of Short-horns. 'Purty fine bunch of corn-fed girls you've got on this range, ain't it? But, sir, when that fellow got in his work on the cuttin'-out and roundin'-up of them words and speeches of his, I felt just like gettin' up and givin' him an old-style three cheers and a tiger. I only had to shut my eyes and I thought I was back in the old church at home with my mother holdin' my hand, just as she used to do when I was a kid; and when I opened 'em, I'll be gol darned if there wasn't some drops of water on my face. First time such a thing happened since we planted my Texas chum out on the old Dodge trail ten years ago. I thought I'd got over them feelings long ago, but they come onto me like long-horns on a stampede. I don't believe much in this grand round-up business on the last day, and I don't jest hitch onto the idea that all the stock found in the herd unbranded then will be left out to starve on the bare range. To my mind a half-starved maverick, if he has rustled and made the best livin' he could when the range was short, will stand just as good a show to get in the blue grass paster as the slick Polled Angus that has been corn fed since he was a yearlin'. But be that as it may, bein' in that corral full last Sunday, and hearin' some things that had about escaped my memory, has done me more good than my feelin's will permit me to say. Only just say to the boys for me that takin' in that preach house and hearin' a few things they ought to, whether they believe them or not, is a derned sight better than loafin' around camp, ropin' long horns or breaking bronchos." And having finished

his fifth cigarette he touched his hat and left us wonderin' if we wouldn't better tell the boys his experience, and ask them to take his advice.—*Harper Graphic*.

How Long Ought a Man to Sleep?

The latest authority on this vexed question, Dr. Malins, says that the proper amount of sleep to be taken by a man is eight hours. So far as regards city life the estimate is probably correct. Proverbial wisdom does not apply to modern conditions of social existence. "Five (hours) for a man, seven for a woman and nine for a pig," says one proverb; and a second, quoted by Mr. Hazlitt in his English Proverbs, declares that "Nature requires five; custom gives (allows?) seven; laziness takes nine; and wickedness eleven." These conclusions were, however, drawn from observation of country life. Physical fatigue is more easily overcome than intellectual. Which of us, when traveling in the country or abroad, or in any way separated from the ordinary processes of thought and anxiety, has not found that he could, without difficulty, do with a couple of hours less sleep than he was in the habit of taking? Men, however, who follow any intellectual pursuit, are exceptionally fortunate if the processes of restoration occupy less than seven hours. More frequently they extend to eight or nine hours. Grant, I see it stated, took never less than seven hours. Goethe owned to requiring nine. Soldiers and sailors, on the other hand, like laborers, do with much less quantity. I am afraid to say how few hours the Duke of Wellington regarded as essential. A school-master under whom, at one time, I studied, a hard-working man at the acquisition of languages, proclaimed loudly that he never took more than five hours sleep. The hour at which he rose in the morning gave some color to this assertion. Only in after life did I discover that a two hours' post-prandial siesta was not included in that allowance.

So lightly still the mother sleeps

That oft at night with gentle tread
She seeks the children's room, and keeps
A vigil by her darlings' bed.
The pillow smoothed, the blanket spread,
Each childish form tucked in with care,
A kiss for each—the silken head
Will fondly dream of mother there.

A mourning house, a vacant chair,
A mother numbered with the dead,
While little children kneel in prayer
Alone beside the tiny bed;
Yet not alone—for in the night
What mystic chords her footsteps bring!
They see her still in garments white,
And hear the rustle of a wing.

There is no remedy for time misspent;
No healing for the waste of idleness
Whose very languor is a punishment
Heavier than active souls can feel or guess.
O, hours of indolence and discontent,
Not now to be redeemed! ye sting not less
Because I know this span of life was lent
For lofty duties, not for selfishness.
Not to be whiled away in aimless dreams,
But to improve ourselves and serve mankind.
Life and its choicest faculties were given.
Man should be ever better than he seems,
And shape his acts, and discipline his mind
To walk adorning earth, with hope of Heaven.

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 threatens nigh;
The sorrowings of a contrite heart—
These things shall never die.

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The Young Folks.

Be Brave, Laugh Amid Difficulties.

Pouting, my darling, because it rains,
And flows droop, and the rain is falling,
And drops are blurring the window panes,
And a moaning wind through the lane is calling!
Crying, and wishing the sky was clear,
And roses again on the lattice twining!
Ah, well remember, my foolish dear,
"Tis easy to laugh when the sun is shining!"

When the world is bright and fair and gay,
And the glad birds sing in the fair June weather,
And summer is gathering, night and day,
Her golden chalice of sweets together;
When blue seas answer the sky above,
And bright stars follow the day's declining,
Why, then, 'tis no merit to smile, my love,
"Tis easy to laugh when the sun is shining!"

But this is the time the heart to test,
When winter is near, and storms are howling,
And the earth from under her frozen vest
Looks up at the sad sky, mute and scowling;
The brave little spirit should rise to meet
The season's gloom and the day's repining!
And this is the time to be glad, for, sweet
"Tis easy to laugh when the sun is shining!"
—Wide Awake.

The St. Bernard Dog.

Tradition has handed down many instances of the remarkable acts of intelligence displayed by these dogs. How Bernard de Menthon founded the Hospice of St. Bernard, and established a breed of dogs which for centuries were kept for the purpose of directing wayworn travelers over the Alps. Much has been written about their finding people in the snow, but it was in following the track hidden by the passing snow-drifts that they showed so much sagacity, and by that means saved many lives which would otherwise have perished before reaching the Hospice. No certain information is given as to their origin, which must be regretted now that the St. Bernard has taken so prominent a position in canine history.

The most that is known, says Fred. Gresham, of London, is that owing to an epidemic which decimated their numbers, and an avalanche which further decreased their ranks, few of the original dogs were left to breed from; and even about these little information can be obtained. At this time, in order to keep up the supply, it was found necessary to cross the then existing St. Bernard with some other breed of dog. Of what variety the latter was there is no positive record. It is suggested by some that it was the Newfoundland, while others aver that it was the Pyrenean sheep dog. The appearance of the race as it now exists in England points to the supposition that the Newfoundland was made the progenitor, and that the original St. Bernard having blood-hound character in its formation, accounts for the hair being reproduced in some while others have eyes like the Newfoundland.

Competent authority in Switzerland has established the fact that it was in the thirteenth century the first Swiss dog was imported into England, but it was not till the present century that the breed gained a footing, and later, in 1862, that the famous dogs, Tell and Hospice, were imported.

The establishment of the club in 1882 to promote the breeding of St. Bernards finally settles the standard of points. The first exhibition of the society in England, held in the autumn of 1882, produced a large entry, though many of the exhibits were deficient in character. Great improvements have since been made, and 250 St. Bernards can now be benched possessing all the typical points of the breed. In a perfect St. Bernard size is of great importance, the minimum height for a dog being thirty-two inches, and as this increases it is of so much more value provided there is substance in comparison. The recognized colors are mahogany, red and gray, brindle, or orange-tawny, the latter being the most showy when the white markings are fringed with black around the eyes and the ears are dark.

The head, which indicates purity of breed, is square at the muzzle, with great depth from eye to lower jaw, and large in skull, with prominent frontal bones, showing a decided stop between dark, medium-sized eyes, the whole having a soft and benevolent expression. It is in the profile that the true character of the St. Bernard is to be detected, as, however wide the skull and muzzle may be from a front view, they are valueless unless the side face is correctly formed.

In formation of body the neck is lengthy and slightly arched, with dewlap extending from the jaw to the chest; the shoulders oblique, with wide chest and well-sprung ribs; the loin wide and muscular, with powerful thighs, well let down on hocks nicely bent; the tail carried rather low and not bent. The fore legs are straight and rather long from the pastern to the shoulder, with heavy bone; the hind legs, also strong, showing equal bone; the feet large and well set up, with toes close together. A peculiarity in the breed is the number of toes in the hind feet; in some few cases six have been found, the whole being on the ground, but as this is unusual, it is not a disqualification when five

are perfect. The coat in the rough variety is flat, and not too woolly, the thighs and tail being feathered, but not heavily. In the smooth the texture resembles that in the foxhound. Weight of a male dog, 160 to 180 pounds; of a female, 135 to 150 pounds.

El Mahdi.

The man who now confronts the British in the Soudan was made a Khouan, or brother preacher, of the order of Sid Abdel-Kader about twenty years ago; five years ago he was elected by the council of the order to take command of the army in the South. He was thereupon proclaimed *Mahdme* (sublime), the "arm of the Almighty," and invested with absolute authority over the faithful, whom he promptly invited to join his forces under penalty of death. His name is Mohammed Ahmed. He was born in Dongola, Nubia, about 1840, and was educated at a religious school near Khartoum.

El Mahdi proclaimed his call to fulfill the prophecy touching the coming prophet of the South, and began to organize an army in 1881. The Governor-General of Khartoum commanded him to disavow his pretensions, and sent a small force against him to enforce the command. These he Mahdi soon defeated and dispersed. A second detachment met the same fate; then a column under Reschid Bay was destroyed to the last man. The following January he intercepted an Egyptian corps, on the way to Khartoum, and killed them all; in June, he annihilated another; and still another (under Yousef Pacha) in July. In every case the captured soldiers of the Khedive were given to the spears; native soldiers were absorbed into his own army, when it suited his purpose.

The next year El Mahdi overcame the Egyptian garrison at El Obeid, the capital of Kordofan, and killed them all, with the European officers in command. As a rule, Christian and Egyptian civilians, with their women and children, shared the fate of the garrisons. From El Obeid the Mahdi invaded Darfur, but returned to his capital to meet the Egyptian army which had been sent against him under General Hicks. The invaders to the number of 11,000 were surrounded, and mercilessly slaughtered. This in the fore part of November, 1883. Last year he wiped out the Egyptian garrisons along the Nile, above and below Khartoum, which stronghold was closely invested and at last captured, despite the heroic defense of General Gordon. With the fall of these fortified posts, particularly Khartoum, the Mahdi has come into possession of steamers, cannon, rifles, ammunition, and other military stores, in quantity sufficient for a severe and protracted campaign; and the failure and retreat of the British relief expeditions—if nothing worse than failure befalls them—completes the record of his military successes, and necessarily adds enormously to his prestige as prophet and warrior.

What the issue will be, time only can determine. False prophet or true prophet, El Mahdi commands the situation; and unless Great Britain is prepared to absorb Egypt and the Soudan, and undertake to establish an Ethiopian India in the heart of Africa, any attempt to punish him in Nubia or to dispute his pretensions in the Soudan will cost more than it will come to.

The Gold-Beater's Art.

If a sheet of gold leaf is held up against the light it appears to be of a vivid dark green color; this means that the light is transmitted through the leaf. When it is considered that this leaf is a piece of solid metal, a better idea of the extreme tenuity of thickness of the leaf can be comprehended than by any comparison by figures; nothing made by the hand of man equals it in thinness. The extreme thinness is produced by patient hammering, the hammers weighing from seven to twenty pounds, the lighter hammers being first used. When the true method of this beating is understood, the wonder expressed sometimes that gold-leaf beating should not be relegated to machinery ceases; the art belongs to the highest department of human skill and judgment. Apprentices have served a term, and have been compelled to abandon the business, because they never could acquire the requisite skill and judgment combined necessary to become successful workmen.

Here are the names of Kansas Governors in their order: Territorial, Reeder, '54; Shannon, '55; Geary, '56; Walker, '57; Denver, '58; Medary, '59; These men were all appointed for one sole purpose, to plant slavery in Kansas. Robert J. Walker was a man of the highest intellectual stamp. Geary made the greatest subsequent reputation as Governor of Pennsylvania, and as a Union General. Denver alone survives; we think he is still alive, and living in Ohio. In brains the appointed were superior to our elected Governors. These latter have been: Robinson, '61; Carney, '62; Crawford, '64; Harvey, '68; Osborne, '72; Anthony, '76; St. John, '78; Glick, '82. Six Territorial Governors, covering seven years; eight State Governors covered twenty-three years; thirty years of organized political history.—*Hiawatha World*.

An English naturalist asserts that the hedge-hog cannot be poisoned, neither strychnine, arsenic nor prussic acid having any effect upon it. It eats adders, regardless of their venomous fangs.

While boring an artesian well on the Rosecrans tract, near Los Angeles, the workmen discovered a deposit of conch shells at a depth of 160 feet.

Be a Blood.

Young man, be a blood. If you desire to make yourself popular with the men and admired by the women, be a blood. Shake respectability. Never read anything. Learn to dance. Drink a good deal. Acquire the art of swearing ably and wink openly on the street at women of the class whose existence is ignored by their reputable sisters. Play faro. This will, of course, keep your pockets empty, but it will give you standing as a blood. Lose with a smile and chaff the dealer while your soul is in a panic on the subject of breakfast. Hang around the doors of saloons and chew a toothpick. Learn the habit of keeping your hands in your trousers' pockets. Be weary of life before you have begun to live it. When you are thoroughly disreputable and what brain nature has given you is sodden with whisky and your health is gone and you are old before your time, you will be a blood.

Napoleon's Carriage.

The carriage in which the first Napoleon made his famous retreat from Moscow, and in which he, as Emperor, set out from Paris in the campaign which closed at Waterloo, is now preserved in London among the effects of the Duke of Wellington. It is a two-seated conveyance, and the top, or cover, is lined with thin sheet-iron. There is also a front curtain of iron, which can be lowered at will. The wheels are large and heavy, and the steps at either side silver finished and of a curious design. The rear seat was the one used by Napoleon. Under the cushion of the seat he carried blankets and pillows. The back of the front seat opens, and at the right hand forms a small cupboard, in which were tin plates, knives, spoons, water can and a small fluid lamp. On the left is a long opening, extending forward nearly to the "dash-board," and into which the Emperor of the first nation of Europe was wont to extend his feet and legs, in order that he might lie at full length. The blankets, pillows, spoons, knives and lamps that were used by the Emperor are still preserved.—*Philadelphia Press*.

Lassoing Wild Elephants.

As soon as the jungle had been to some extent chopped and trampled down, so as to give a clear field for action, half a dozen tame elephants, with mahouts and noozers, were sent in to noose the wild elephants. The noozers managed with great skill the throwing of a stout rope made into a loop—as the cowboy uses his lariat—so as to catch each elephant in turn by the hind leg. The rope would be made fast at the other end to one of the tame elephants. As soon as the tame brute would feel that a catch had been made, it would start out at a cool, deliberate and unconcerned gait in the direction of the grand stand, where tying up was done, dragging behind it the captured animal. An elephant hauled along backward by one extended hind leg is at a serious disadvantage. It can not claw and hold on to the ground with any great effect. About all it can do is bellow, and that it does energetically and woefully. Whenever one made any great effort at resistance, a second tame elephant followed along, pushing with his trunk the struggling animal. Then each beast was tied up, and some of them grew quite furious. One little fellow after being tied up for twenty-four hours, was still so mad about it that he would grow almost frantic with rage when anybody went near him. In two days' more work the whole herd had been tied up, and the work of subjugation began.

A Dog That Had His Revenge.

One of those singular incidents of brute intelligence that now and then cause men to pause and ponder upon the inscrutable mysteries of creation occurred recently in the city of Allegheny. A gentleman residing there has two very intelligent dogs which he has trained to work in a tread-mill that runs his wife's sewing machine, thereby relieving her of that labor. The dogs take turn about at it, one working in the morning and one in the afternoon. The lady was recently making a masquerade ball costume, which, of course, she carefully guarded all knowledge of from her female friends. One lady especially had tried every means to find out what the costume would be, and an absolute enmity had grown up between the two. The other day one of the dogs was taken sick and the morning dog had to do double duty. To this he strenuously objected, but was whipped until he did the work. At the masquerade ball a few nights afterwards the lady was deeply charmed to see her rival wear a costume identically the same as her own. How she could have got the pattern remained a mystery until the ladies became friends again and the facts leaked out. It seems the dog knew of his mistress' desire to keep her costume a secret, and, resentful for the extra work imposed upon him, had watched his opportunity and taken the pattern to her rival in his mouth. After it had been inspected and copied he had returned it to its place under the sewing-machine box and carefully placed the scissors and thimble upon it as they had been. It really looks beyond the power of instinct.

The drinking of large quantities of whiskey as an antidote for the bite of a snake, and which by many is considered very efficacious, proved entirely worthless in the case of a Georgia lad who was bitten by a reptile supposed to be a snake. The lad thrust his hand into a hole for a rabbit, which had been chased by his dog, when he was bitten.

A squirrel can run down a tree head first. The cat and the bear must get down tail first (if left to themselves.)

The standing armies of Europe aggregate 3,501,971 able-bodied men. The taxes for their support aggregate \$495,615,603.

A new motor, driven by the explosion of small charges of gun-cotton, has been produced in England, and it is said to be applicable wherever small powers are required.

From surveys of the Gulf of Mexico it appears that its area is 595,000 square miles, and that the area of the surface included within the 100 fathom line is 387,000 square miles; rather more than one-third of the surface having a depth of less than 100 fathoms. The greatest recorded depth in the Gulf is 2,119 fathoms, the mean depth being 838 fathoms.

Nature tells of a canary that had been greatly annoyed by the hardness of the bits of cracker thrown into its cage. One day it lifted a piece of cracker and, taking it to the water trough, dropped it in and then stirred it about with its beak until it was in condition to be eaten. It now puts every hard substance which it deems eatable into the water. It endeavors to soften sweets in the same way, but finding that the sweet became gradually smaller and smaller, it hastily abstracted it, and has never since put anything of that nature into the water.

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Very good sirup is made from the seed of sorghum. Indeed, people have not yet learned all the merits of that plant.

Rufus Potter, an old man in New Haven, Conn., says he has invented a machine to be operated by the wind, and that will draw several plows through the ground.

In a note from a friend in Cloud county, we learn that wheat is injured some by drouth. No chinch bug or fly in his neighborhood. Rye looks well and stock generally is in good condition.

Our information as to the condition of wheat leads us to believe that there will not be raised this year in Kansas more than two-thirds as much as there was last, and we would not be surprised if the amount is below that.

Dakota farmers have much trouble because there is no standard system of wheat grading recognized among elevators. A receipt for a hundred bushels of wheat marked to a certain grade at one place is good for wheat only, without reference to grade in Minneapolis.

John F. McCrady, corresponding secretary of Pleasant Valley Farmers' Club, Harper county, writes that wheat in that locality is damaged some. Farmers there had finished oats sowing and some had begun to plant corn. His letter was dated March 31.

We learn that an old army comrade of the editor of this paper, Lieut. H. M. Robb, is an applicant for the office of Commissioner of Forestry in Kansas. It would please the FARMER very much to see Mr. Robb in a place that he is so well fitted by natural qualifications to fill.

Grace F. Colledge, a well-known contributor to the *Youth's Companion*, *Wide Awake* and *St. Nicholas*, has begun in the *Philadelphia Weekly Press* a department devoted to amusements for the home, social clubs, church entertainments, etc. The feature is meeting with great favor.

Business failures in the United States during the quarter ending March 81, numbered 3,658, an increase of 362—11 per cent. over those of the same period in 1884. The liabilities of the quarter just closed foot up \$46,181,951, against \$40,186,978 for the corresponding period last year.

From an interesting statement recently published by the Kansas Loan & Trust company, it appears that Kansas raised more corn—(190,870,606 bushels)—in 1884 than any other State in the Union, and it was better. Next below Kansas is Missouri, then Illinois, Iowa, Indiana, Nebraska, Kentucky, Tennessee, Ohio, Texas, Pennsylvania, and so on down to Rhode Island that produced only 300,000 bushels.

What are a Farmer's Wages?

When a farmer is asked what wages he is making he rarely knows what to say in answer. And there are several good reasons for this apparent ignorance. Not one farmer in a thousand keeps accounts with himself or with any department of his business. An exchange remarks—"We know of men who, after providing a living for themselves and their families, and spending several hundred to a thousand dollars in permanent improvements, which add just so much to the value of the farm, talk of not having earned a dollar a day, simply because they have not been able to put away \$300 in the course of the year. Probably such a man, had he kept proper accounts, charging up all that he spent in the way of permanent improvements as distinct from current repairs, and all that his family consumed off the farm, at regular selling prices, besides what he paid the grocer and butcher and other tradesmen, would have discovered that he had made five or six per cent. interest on the value of his property, and paid himself a salary of \$1,500 or \$1,800 besides."

An ordinary farmer—one that cultivates eighty to one hundred acres of land, is about such a man as, if he were elected to a county office which would require all of his time, would be satisfied with a thousand dollars a year as salary. And he would probably believe that amount is more than he makes on his farm. Should he be so unfortunate as to be elected to such an office and move his family to town and live like town folk, he would soon discover that when he buys everything he or his family uses even to a dime's worth of lettuce, radishes or onions; when he goes to the market every morning or evening for a bit of ten to fifteen cent beef, and a nickle's worth of milk, that his cherries, gooseberries, peaches—everything costs him a direct and immediate outlay of "cash money," he is not long in learning that there is no fortune to any man at a thousand dollars a year when he must pay for everything he uses, and he does not live as well or as comfortably as he did on the farm.

This shows that his expenses are at least a thousand dollars a year and he kept them all nicely up on the farm though many times he did not have five dollars in the house. By thinking a moment he can see how all this happens. On the farm, he had a good garden, which secured all his vegetables and he had some to spare; he raised his own grain, and had some to spare; he raised his own cows and had milk and butter without expense; he raised his own poultry, and had spring chickens that were less than a year old, and they did not cost him a cent; he raised his own hogs, and always had plenty of pork for home use and a good deal to sell; he had beef when he wanted it, and mutton, and did not have to go beyond his own cellar or ice house for it; he raised his own fruit, and though he had plenty of it and more it did not cost him the outlay of a cent. Besides having all of these things that he wanted, he sold pork, wheat, corn, fruit, vegetables, butter, eggs, and other things, with which he paid for such family supplies as he did not raise. Probably all his sales from the farm the last year before he took office did not amount to more than three hundred dollars, or one dollar a day for each of three hundred working days in the year. Unthinking persons would put that three hundred dollars against the one thousand dollars salary in town. But it only shows (supposing the living to be equally good in both places) that what was raised and used on the farm and not taken into the account at all was worth at

least seven hundred dollars a year. And every year a well managed farm is worth more than it was the last year preceding. The increase of stock, the increased value of all permanent improvements, the more productive orchards, etc., all these and other growing values increase the farmer's capital every year, although he may not handle much money. A fixed salary is that and nothing more. As fast as it comes in it goes out unless it is very large and the recipient a prudent and frugal man.

A person never knows or realizes the value of a farm and its products until he leaves and turns his attention to something at which he receives money and only money for his services. He lives on a little patch of ground hardly large enough to hold his house. [City lots in Topeka are 25 feet front and 150 feet deep. With a little house, a couple of trees and a gooseberry bush, the land is occupied.] Family expenses are high. A small quantity of milk daily costs—say ten cents; that amounts to \$36.50 a year. Another dime occasionally will pay for a little buttermilk. The milk bill of a single year for an ordinary family is about fifty dollars. On the farm that would be saved, therefore not counted as income. Such a family would use at least \$25 worth of eggs, and an equal amount in small vegetables, as radishes, lettuce, celery, etc. There is one hundred dollars in a year for items that a farmer would not think about because he has them plentifully at home without cost as it seems, yet the bills show them to be one-tenth of a salary of a thousand dollars a year.

Looking at the matter in this light, one sees that a farmer's wages are the value of what he produces. Everything he uses is worth something. If he raised it, its value is part of his wages. There are thousands of farmers in Kansas now that are making much better wages than are the State officers that receive two thousand dollars a year.

New Commissioner of Agriculture.

Norman J. Colman, editor of Colman's *Rural World*, St. Louis, Mo., is the new Commissioner of Agriculture. He was sworn into office last Friday.

Col. Colman is a very active, energetic man, and he is a warm friend of the sorghum sugar industry. Those who know his qualifications best have urged his claims strongly for appointment, and they believe, as the *Washington Post* expresses it, that the appointment of Norman J. Colman, of Missouri, to the Commission of Agriculture insures to that department a degree of administrative efficiency which, it may be said without disparagement to any of his predecessors in office, it has never enjoyed before. Gov. Colman is, in the broadest sense of the term, an educated farmer, and possesses the practical knowledge, the comprehensive experience and the range of agricultural information that peculiarly fit him for the position to which he has been assigned. The people may rest assured that the department is in the best of hands, and under Gov. Colman's supervision will be brought up to a high standard of utility.

Col. Colman was born in 1827 near Richfield Springs, N. Y., and at the age of sixteen was teaching public school. In 1847 he located at Owensboro, Ky., and established a seminary. On account of illness he subsequently moved to Brandenburg, where he taught one year, and then removed to Louisville, where he taught school and studied law, taking his degree of Bachelor of Law and a license to practice soon afterward. Hon. M. C. Kerr, late speaker of the house of representatives, was teaching there at the same time, and the two became occupants of the same

room, close friends and finally law partners at New Albany, Ind., where Colman afterward became district attorney. In 1855 he went to St. Louis, bought out the *Valley Farmer*, which, under the changed name of *Colman's Rural World*, he has since owned and edited. He suggested and assisted in the organization of the State Horticultural society, the State Board of Agriculture and other kindred organizations, of which he has repeatedly been elected president, as well as of the Missouri State Press Association. As a member of the State legislature, he took a prominent part in the exciting contests of the 1865-6 sessions, when the Drake constitution was enforced. He became, in fact, a leader in his party. In 1868 he was nominated for lieutenant governor. In 1874 he was urged by his friends for governor and was unanimously nominated for lieutenant governor and elected. He was a Union man during the war and served as lieutenant colonel of the Eighty-fifth regiment of enrolled Missouri militia. He is thoroughly fitted in every way for his new position and is in his fifty-eighth year. For twenty years he has been a close and intimate friend of Prof. C. V. Riley, the entomologist of the department.

The President and Appointments.

The new President is starting out well. He does not remove faithful officers. The policy appears to be to let them continue to the end of their term when he will appoint their successors. He re-appointed Mr. Pearson, postmaster at New York City—the most important office of the kind in the country. Mr. Pearson is a Republican. This act is severely criticised by many of the President's party friends, who assert that the offices belong to Democrats. But the President argues that Independent Republicans were very serviceable in his interests last year, and that he owes them something. They asked the retention of Mr. Pearson, and they were gratified.

How long this kind of work will continue cannot be foretold. The President is a man after his own heart. He has demonstrated pretty clearly already that what he desires to do or to omit is pretty apt to be treated according to his own notion. When an obstinate man is right, he is the right man in the right place; but when he is wrong, he is the wrong man in the wrong place. Mr. Cleveland has the organ of firmness well developed. If he holds out as he begins the country will gain by his election. He appears to be in full sympathy with the spirit of reform which has been operating very satisfactorily several years in the civil service. The good work done and which may be done under the civil service law and rules can be better demonstrated by a Democratic President than by a Republican, because the good work was begun under Republican administration, and so long as that party remained in power, unimportant changes were not noticed, for it was "all in the family;" but when a Democratic President comes in and his own party want him to "turn the rascals" all out to make room for the "outs," and he does not cut off an official term in the middle just to please his party friends, the people see plainly that after all civil service reform has taken root at the capitol city.

Professor's Snow's weather report for March states that it was the driest March in 18 years—least rainfall, except—March 1879. The mean temperature was 1.23 degrees below the average. Highest temperature during the month 73 deg.; lowest 15 deg.; mean 40.55. Rainfall less than one inch, though the depth of snow was four inches.

Evaporation is likely to take the place of drying in the preservation of fruits. It is proposed now by some persons to evaporate cane juice in the manufacture of sugar. Mr. Denton, of Bavaria, this State, says such a revolution in method of manufacture is urgently demanded in the northern cane industry. Such a change will come and will be the salvation of the industry. I believe the method will be the same in principle as that which has so greatly assisted the fruit industry, namely, evaporation by hot air. There is no essential difference between fruit juices and cane juices; there is little difference in the percentage or quantity of water to be removed. In both cases the problem is to remove water without injuring the solids in solution in the liquid and thus condense the liquids, retaining their original value. This has been accomplished in fruit evaporation, it has not yet been accomplished in evaporating sorghum juice. When it is as successfully performed, then sorghum will be an "economic success."

As to the possible or probable competition between natural and artificial gas, a Pittsburg paper is of the opinion that so far as natural gas has been applied to the manufacture of iron, steel, and glass, the quality of the products is rather in its favor. For steam raising it is very superior to solid fuel, not merely in the lessening of labor and freedom from ashes, but in that the heat can be more equally distributed lengthwise and around the boilers, to the benefit of the latter in the matter of safety and durability. It is safe to say that the use of gas fuel in this locality now supplants the use of several thousand tons of coal each week, and there is no doubt that the use of gas fuel will largely increase in the near future. Coal proprietors who have depended upon manufactories for their business already feel the local rivalry of this wonderful and valuable agent for the industries, and this competition between coal and natural gas can only be measured by the gas developments of the future.

By way of explaining, or, rather, of demonstrating the constituent elements of wheat, the *Indiana Farmer* suggests that if we put an ounce or two of flour into a muslin sack and wash it in cold water till the water squeezed from it no longer has a milky appearance, there will remain a gray, tenacious, elastic mass which is semi-transparent when dried, and which will undergo a true putrefaction, like animal flesh, if kept moist and warm. If the water in which it was washed is suffered to stand quiet for an hour the starch will be found as a white mass at the bottom, with the clear water above it. If this water be carefully drawn off and slowly heated nearly to the boiling point, a pellicle or thin film will form over the surface, which will be found to be nearly identical with animal albumen as seen in the white of an egg, and like that substance it is soluble in cold water and coagulates with heat. Its composition allies it with the gluten group and not with the starch. If the water be now evaporated to dryness, a small quantity of sugar will be found remaining.

Commenting on what was reported as heavy losses of cattle on the northern ranges the *Northwestern Live-Stock Journal* says that a very large per cent. of the cattle thrown on the northern ranges last fall were from the western States, gentle and accustomed to being fed and cared for during winter. When the snow and piercing cold came they naturally looked for protection and feed such as they were used to. Hence all of the weaker ones gathered about the

headquarters and line camps, wherever there was a human face to be seen or a stack of hay to be smelled. These weak ones lingered around the camps and died, while the stronger ones went onto the range and rustled. Tame cattle will hunt for a man rather than for grass on the open range. Hence cowboys coming along the road from camp to camp, attract these pilgrim cattle, and they stay where they hope for help until they perish. For this reason there is seen along the highways, at the creek crossings, and around every house and stable in the vicinity of where States cattle were turned loose, a good many dead ones. But go out on the range and only a few are found.

Have Plenty of Grass.

Grass is the foundation of flesh. It is the beginning of a great many good things. A farmer without grass would soon wonder what he is here for. Every farm house ought to be in the midst of a beautiful lawn well sodded. Every farm ought to have a fair proportion of its surface always in grass.

The best field grasses for Kansas are red clover, timothy, orchard grass and meadow oat grass. Johnson grass is coming into favorable notice, and much is expected of it. It is a southern grass, however, and time will disclose its staying qualities with us.

Orchard grass seems to do well wherever tried. It comes early, grows fast; grows all the time till late in the fall, and makes a great deal of very good pasture.

Red clover is, perhaps, the best pasture grass known in temperate latitudes. It needs a good soil, and does better where there is considerable rain. The principal reason of failure with red clover in Kansas is unskillful cultivation. It ought to have a deep, well pulverized bed of earth to grow in. That is true, indeed, of all grasses, but it is particularly so with this variety.

Alfalfa is recommended by some farmers, and we believe it will yet prove to be very valuable in Kansas.

Kentucky blue grass and white clover are better for lawns, and early and late pastures. We have blue grass and orchard grass now in good stage for pasturing.

There is plenty of time yet for sowing grass seed. Prepare the ground as well as you would if you were going to raise a crop on which a great deal depends. It is not at all likely that the ground is too rich. Make it as rich as you know how; but if you expect grass seed to grow and amount to anything, don't mix up the soil with dry unrotted manure. Thin land, or hard land, or gumbo, may be made fit for growing crops by breaking up deep and covering in large quantities of straw manure. But that requires two or three years. This article is for this spring, and we want the seed put on ground that is fit now. Then work it up fresh and in the best possible condition, and sow the seed and cover lightly with anything that will do the work, and if the ground is very loose, it is well to roll.

Sow plenty of seed. Don't be stingy in this matter. Put it down thick; it will be as bread cast on water. And as soon as the young grass, or the young weeds, are high enough to cut, mow it off, leaving the stuff on the ground as it falls from the mower. Follow this up, repeating as often during the season as may be necessary to keep the weeds down and assist the grass in getting a good foothold.

As to quantity of seed, the usual figures are: Clover ten pounds to the acre; timothy fifteen pounds; orchard grass twenty pounds. Blue grass for pasture, twenty-five pounds per acre; but if for lawn, put on about three

bushels and two or three pounds of white clover seed. These are usual figures. Be sure not to get less, and if you put on twenty or twenty-five per cent. more it is not lost.

Don't pasture any kind of grass the first year after sowing. Any of the seeds above named may be sown any time up to the tenth or fifteenth of May.

Inquiries Answered.

Cost of raising wheat is given by an Osborne county farmer at 31 cents per bushel.

Cost of raising beef in Kansas is given by Mr. Fullinwider at from 50 cents to \$4 per 100 pounds according to methods.

Professor Collier says that sugar can be made from sorghum at an expense as low as 1 cent a pound. But the manufacture has not reached that point yet.

Posts may be preserved by drying thoroughly and then boiled in coal tar, or saturated with coal oil. If a few holes are bored into the post and the oil is poured into them it will soon get into the wood when the holes may be plugged by oiled pins.

The quantity of grass seed per acre required for good seeding is greater in Kansas than in the Eastern or Middle States because more of it fails to grow here. Of seed like timothy, red top, orchard grass, blue grass, etc., twenty to twenty-five pounds per acre, and of red clover about twenty pounds.

SAUSAGES.—Here is one good recipe: To forty pounds of meat, take three-quarters of a pound of salt, one-quarter of a pound of black pepper, one-quarter of a pound of sugar, and one ordinary cup of good sage. Put in a large bowl and mix. We sometimes put a little red pepper in the one-quarter pound of black pepper, and some would not like quite so much sage (provided it is good and strong. What I can get at common grocery stores is very poor indeed). We spread the meat out on a large table, and mix well before grinding, then run through the chopper twice. To put them away, pack in small pots while fresh, and pour boiling hot lard over them. We used to cook them before packing, but it gives them a dry taste.

SALT FOR ANIMALS.—In answer to a question why do animals need salt, we can do no better than to quote Prof. Johnston, of Scotland: "Upward of half the saline matter of blood (57 per cent.) consists of common salt, and this is partly discharged every day through the skin and kidneys. The necessity of continued supplies of it to the healthy body becomes sufficiently obvious. The bile also contains soda (one of the ingredients of salt) as a special and indispensable constituent, and so do all the cartilages of the body. Stint the supply of salt, therefore, and neither will the bile be able to assist digestion, nor the cartilages to be built up again as fast as they naturally waste. It is better to place salt where stock can have free access to it, than to give it occasionally in large quantities. They will help themselves to what they need, if allowed to do so at pleasure; otherwise, when they become 'salt hungry,' they may take more than is wholesome."

SORGHUM CULTURE.—For feed, we give the method of N. A. Ensign, Harvey county: "For winter feed or pasture sorghum should be sown thick, say one bushel of seed per acre. It will grow on fairly rich soil six to six and a half feet high, and stand as thick as timothy upon the ground, and yield from six to eight tons per acre. It can be cut and handled as easy as so much timothy grass. For best results this crop should be cut as soon as the head is fairly formed, and if well cured—which is not a difficult thing to do in our climate—there are very few kinds of bulky food that stock prefer to it or thrive better on. Sown as above described and cut as I have suggested, there will be no woody indigestible material about it. Stock will eat it as greedily and clean as the best timothy hay,—and as far as I can observe will do as well upon it. I have wintered eighty cattle, forty Cotswold sheep and nine horses almost entirely on this feed cut from eleven acres of sod ground. I never had so little feed wasted, and my cattle, sheep and horses never before did so well as this winter. I have not lost an animal or had one sick, which has not been my experience with prairie hay. My herd is composed of thoroughbred and grade Short-horns, believed to require better care and feed than common stock."

THE MARKETS.

By Telegraph, April 6, 1885.

STOCK MARKETS.

Chicago.

The Drovers' Journal reports: **CATTLE**—Receipts 4,300, shipments 2,000. The market was active and 10c higher. Shipping steers 4 60a 5 90, stockers 3 40a 4 40, feeders 4 35a 4 70, Texans 3 90a 5 00.

HOGS—Receipts 8,500, shipments 3,500. The market was firm and 5a 10c higher. Rough and mixed 4 20a 4 40, packing and shipping 4 50a 4 65, light 4 30a 4 65, skips 3 60a 3 75.

SHEEP—Receipts 4,500, shipments 1,500. The market was steady. Fair to good 3 75a 4 50, inferior 2 50a 3 50.

St. Louis.

The Midland Journal reports:

CATTLE—Receipts 700, shipments 900. Supply small and quality poor, but prices steady and demand good. Exports nominally 5 50a 5 75, good to choice 5 20a 5 75, common to medium shipping 4 50a 5 00, butchers' steers 4 25a 4 80, cows and heifers 3 00a 4 25, Colorado steers 4 00a 4 50, stockers 3 50a 4 00, feeders 4 25a 4 75, corn fed Texans 4 00a 4 80.

HOGS—Receipts 2,000, shipments 4,500. The market was stronger. Yorkers 4 30a 4 40, packers 3 90a 4 20, heavy 4 40a 4 50.

SHEEP—Receipts 500, shipments 900. Scarce and firm; demand largely in excess of supply. Common to fair 2 75a 3 75, medium 3 40a 3 65, good to choice 3 75a 4 40, extra 4 50a 4 75.

Kansas City.

CATTLE—Receipts 965. Shipping grades 10c higher, butchers' and feeders steady. Exports 5 15a 5 54, good to choice shipping steers 4 80a 5 10, common to medium 4 50a 5 00, feeders 4 00a 4 50, cows 2 70a 3 70.

HOGS—Receipts 5 100. The market opened firmer and higher. Good to choice 4 15a 4 00, common to mixed 4 00a 4 10.

SHEEP—Receipts 1,900. The market to day was steady. Fair to good muttons 2 50a 2 25, common to medium 1 50a 2 25.

PRODUCE MARKETS.

Chicago.

WHEAT—Active and higher. Sales ranged, April 77 1/2c to 79c. May 80 1/2c to 82c. June 82 1/2c to 84c. **CORN**—Cash 38 1/2c to 41 1/2c; April 37 1/2c to 38 1/2c. **OATS**—The market was stimulated by an advance in other markets, and ruled firmer. Cash 28 1/2c to 29c.

RYE—Firm, 6c. **BARLEY**—Steady, 62a 63c. **FLAX SEED**—Quiet, 1 39c.

St. Louis.

WHEAT—The market opened very excited and higher with an active demand on both 10c and country accounts. No. 2 red 91a 91 1/2c; cash, 89 1/2c to 90c.

CORN—Was strong and higher but transactions moderate, owing to small offerings. 39 1/2c to 39 3/4c.

OATS—Firm and higher, but slow; 32 1/2c cash. **RYE**—Nominal. **BARLEY**—Dull, 50a 70c.

Kansas City.

WHEAT—Received into elevators the past 48 hours 23,998 bushels with 27,581 bushels in store 556,555. A firm and active wheat market was had to-day. There was a strong demand for cash wheat and the options including May, June and July were active. No. 2 red winter, cash 1 car at 67 1/2c; 2 cars at 67 1/2c; April 67c; bid 67 1/2c; asked; via 5 cars at 68 1/2c; 3 cars at 68 1/2c; June 30 cars at 69 1/2c; 60 cars at closing. July 60 cars at 71c.

CORN—Received into elevators the past 48 hours 11,491 bushels, withdrawn 5,757 bushels, in store 178,775. Values were firm to day but the market continued in the same old rut that has marked it for some time. No. 2 cash 3 1/2c bid 3 1/2c asked. April 2 cars at 3 1/2c; 5 cars at 3 1/2c.

RYE—No. 2 cash 50c bid 50c asked.

OATS—No. 2 cash 3 1/2c; bid, no offerings.

BUTTER—Receipts of creamery larger on account of higher prices paid here than in Eastern markets, or prices on this account lower. Roll butter not wanted.

We quote packed: Creamery, fancy fresh made..... 25a 27 Creamery, choice..... 22a 23 Creamery, fair..... 20a 21 Creamery, inferior to common..... 1a 18 Choice dairy..... 19a 20 Fair to good dairy..... 12a 14 Storepacked table goods..... 14a 15

We quote rolls: Good to choice, wrapped..... 16a 18 Good to choice, unwrapped..... 10a 12 **EGG**—City trade light and shippers making the market at 10c.

CHEESE—We quote new eastern out of store: Full cream: Young America 14c per lb; do twins or flats 13 1/2c; do Cheddar 13 1/2c. Part skim: Young America 9a 10c; flats 8 1/2c; cheddar 8 1/2c. Skim: Young America 6a 7c; flats 5 1/2c; cheddar 5 1/2c. Old or sharp 1 to 4c lower as to quality. Kansas and Missouri part skim flats 7a 8c; skim flats 5c.

POTATOES—We quote home grown in a small way at 75a 80c per bush. Consignments in car loads: Early Rose 62a 65c, White Neshannock 5a 6c, Peachblow and other choice varieties 60a 63c. Colorado stock 70a 73c. Early Ohio 80c. Strictly choice seed potatoes 10a 20c higher.

SWEET POTATOES—Home grown 1 15a 20 for red per bush; yellow 1 20a 25 per bush. Seed potatoes 3 50a 4 00 per bush.

TURNIPS—We quote from wagons at 4a 50c; consignments not wanted.

APPLES—Consignments of Missouri and Kansas choice to fancy, 3 00a 3 50 per barrel; common to good 1 75a 1 50 per bush. Home grown from wagons 75a 90c per bush, for fair to good. Stand apples 1 00a 1 25 per bush.

BROOM CORN—Choice green carpet brush per lb..... 3 1/2a 4 1/2c Green hurl..... 4a 5c Green self working..... 3a 3 1/2c Red or yellow tipped hurl brush..... 2 1/2a 3 1/2c Red or yellow tipped self working brush..... 2 1/2a 3c Short brush..... 2a 2 1/2c

CASTOR BEANS—Quoted at 1 40a 1 50 per bush.

FLAX SEED—We quote at 1 23a 1 25 per bush upon the basis of pure.

Horticulture.

FORESTRY--NO. 4.

INFLUENCE OF FORESTS ON WATER COURSES.

By water courses will naturally be understood rivers and streams as they flow winding and coursing through the landscape, watering field and farm, driving machinery or bearing freight-laden boats and vessels. These bodies of water have their legitimate places and functions in the economy of nature which are of particular interest and importance, and when nature is evenly balanced in her workings so that the water courses perform their normal functions, they contribute to the welfare of mankind in many ways. The great feature of their usefulness is their value as highways of transportation. They afford when navigable a safe and cheap medium of travel and transportation, both for commercial purposes and for pleasure.

Rivers, like lakes, aid in the work of nature as has been shown, by attracting rain clouds and causing the precipitation of rain showers in dry hot seasons to water the thirsty earth and parched vegetation, preventing sometimes the loss of valuable crops. They serve also as natural drains to carry off the excess of water on the surface and within the soil from which crops often suffer as well as from too little water. During very dry times the volume of water becoming less, their currents are slower, and instead of draining the earth as when they flow faster, the draining process is so far checked that the springs and water strata of the earth in their vicinity are drawn upon very slowly so that when water fails at a distance it can usually be had near the streams which themselves furnish stock water for large sections of territory. Timber grows more naturally and luxuriantly along rivers because of the moist condition of the soil at all times.

Rivers and streams aid largely as natural sewers to carry off garbage and filth falling within their reach or washed into them, the heavy rains thus having a cleansing effect upon the land and purifying the atmosphere of their sections from the stench of decaying matter constantly accumulating on their borders.

The many uses made of the water and the power of streams by the devices of man, such as irrigation of the land, the supply of reservoirs of stock water, their power for driving machinery in various ways, indicates plainly their value to the agricultural interests of the country. And finally, their beautifying effect upon the landscape makes them worthy of great interest and consideration as the morals of mankind are largely affected by their surroundings in nature.

When rivers are swollen by an unusual quantity of water following heavy and excessive rains, their force passes the limit of usefulness and becomes an agent of destruction washing away valuable lands, overreaching their bounds and sweeping away valuable property and sometimes destroying life. These occurrences are variously designated freshets, floods, deluges, etc., but are all alike destructive in a high degree, and any means whereby they can be prevented in whole or part are of both interest and importance to agriculturists, particularly though not to them alone. Here in Kansas the damage in the way of washouts is not as a rule so great as the hindrance to travel and the interference with business. The high rises of water in streams followed or alternated with very low stages, which often occurs, interferes largely with the milling and similar industries. Stock de-

pendent upon the smaller streams for water often experience a difficulty in procuring a sufficient supply of water in the hot summer months. The cause of these extremes and irregularities of flow of the water of rivers and streams is the absence of the natural agencies for regulating their flow, there being nothing to restrain and check the sudden drainage from the lands adjacent, or to prevent the unnatural swelling of their waters which too frequently occurs to a destructive degree, causing on the one hand floods and freshets with all their damaging effects and succeeding them by dry channels and dearth of water and consequent loss to stock and crops. The great need is assistance to nature to control the flow of rivers by efforts to build up and maintain the agencies that affect and control to some extent the elements and regulate the supply and flow of the lesser streams, so that the water of rainfalls is absorbed and held in check being allowed to flow off by regular and constant measure, preventing the sudden rush and damaging results.

Nature provided forests or timber lands to cover the earth in the vicinity of streams and rivers, and these forests prevent the conditions of soil necessary to the holding of water of rainfalls for a gradual delivery to the streams as was intended nature should operate. The retentive nature of forest soil which, as has been described before, serves the purpose of nature in this direction. The power of this soil to hold water prevents its too sudden drainage from the land into the water courses thus lessening the tendency to overflow and the extent of floods and their consequent drainage. This function of the forests is the agency that regulates the flow of rivers by the gradual passage of water that falls upon the surface, making the streams less violent after heavy rains, and keeping up their volume in dry seasons. The destruction of the lands along the banks of rivers which often amounts to extensive and damaging washouts is very much lessened and largely prevented by the growth of trees along their banks, the roots permeating intricately and binding the soil in place by their thick network of fibers. By these means streams are kept in their natural courses without which they often change about laying waste large amounts of very valuable land, making serious inroads upon the best parts of the farm for meadow and tillage. This action frequently renders portions of streams unnavigable by destroying their channels and washing up obstructions. Many rivers that might be navigable and important as highways of transportation are by this means rendered useless for that purpose. With banks well protected by forest growth, streams are held to narrow beds, and the accelerated force this gives them frees their channels from accumulating obstructions, carrying off the loose deposit that so frequently fills up and bars small rivers, destroying their usefulness in many respects. Of the great value of rivers as highways of transportation it is unnecessary to speak here, so well is that matter understood. And our effort is to show how they may be kept open for that purpose without resorting to the expensive means of dredging and kindred agencies, but by using the forces of nature to accomplish the desired end. The object of this writing is to show that forests along streams and rivers are intended by nature to protect the lands bordering on them from destruction and waste, and by keeping the banks strong and safe hold the waters to their natural beds and their courses open and free from obstruction by accumulating deposits; also to keep their flow equal and steady

to a degree sufficient to the demands of navigation. The accomplishment of these ends also prevents damage to land and to crops consequent to the overflow of streams, and it would seem that all these good results might be obtained through the liberal planting of forest trees along the banks of and in the neighborhood of streams where from any cause they may be wanting.

FORESTER.

Winfield, Kas., March 30, 1885.

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

The Veterinarian.

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

INFLAMMATION OF BOWELS.—Neighbor had a mare that was within six weeks of foaling. She was taken suddenly sick, lying down and getting up as if attacked with colic, stretching her neck out and turning up the upper lip. In a few days after, she lost her colt. She would eat nothing, but was very thirsty. She died in about two weeks after taken sick. The owner thinks she was poisoned. We opened her and found the intestines filled with wind and water. [From the symptoms and post mortem appearances as described, the true nature of the disease which caused the death of the animal is not very apparent. We, however, cannot see any evidence of poison having been administered, and think it probable that the patient died from inflammation of the bowels.]

GRUB IN HEAD OF SHEEP.—Will you please give a remedy that will effect a cure of the grub in the head of sheep? [Various remedies are recommended for the dislodgement of the larva of the *Oestrus-ovis* (sheep bot fly). In the early stages tobacco snuff introduced into the nostrils will, by causing violent sneezing sometimes cause the grubs to be promptly expelled. In some cases the horns are sawed off close to the head, the sinuses opened with a trochar, and some sweet oil flavored with turpentine, is poured in, or the sheep may be seized and the nose held up while a teaspoonful or two of a mixture of equal parts of turpentine and sweet oil are poured into the nostrils. This requires some care, that the animal is not strangled by the fluid passing into the bronchial tubes. It is, however, very efficient treatment. To prevent the flies from depositing their eggs in the nostrils of sheep some men smear the noses of the sheep with tallow during the months of June and July; others run furrows across the field so that they can protect themselves from the flies by burying their noses in the dirt.]

LAMINITIS.—What ails my Short-horn bull? He is six years old, and has been kept on a floor, winter and summer, for the past five years, and up to January 1st was in excellent health, weighing 2,200 pounds. At this time we put some smooth oak flooring in his stall. The bedding would get misplaced under him some of those cold nights, and he laid on the bare floor. He either got strained in getting up, or may be caught a bad cold and became stiff, as if he was foundered. We took him off the floor, but he lost flesh very rapidly, and for the past fifteen days has lost his appetite, and now weighs only 1,700 pounds. He lies down almost all the time, and only walks when we make him. Some days he bloats up, and is rather inclined to scour. [After a careful review of the history and symptoms of the above case, we think it probable that the patient is suffering from the disastrous results of a protracted attack of acute founder (laminitis), which no doubt has been induced by high feeding, the constant standing on hard plank floors, undue exposure and want of sufficient exercise. The frequent bloating and tendency to relaxation of the bowels are indicative of some functional derangement of the digestive organs, which looks as if the disease of the intestines might have been transmitted to the feet, thus constituting what is known as metastatic laminitis. The disease is of so long standing, having existed now almost three months, and the probable alteration of structure in the diseased parts, which as a rule is a common result of unrelieved attacks of this character, leave very little hopes for the ultimate recovery of the animal. We suggest that the patient be kept on a soft ground floor. If he is inclined to assume the recumbent position, plenty of bedding should be provided. Be careful about feeding until the stomach and bowels have resumed their natural condition. Bran mash seasoned with salt with a little hay will be very good. To correct the flatulency and restore the digestive functions, the following may be given three times a day, after each meal: Hyposulphite soda, 1 oz.; fluid extract golden seal, ½ oz.; fluid extract ginger, ½ oz.; water, 8 oz.; mix.]

Vitality of Great Men

Is not always innate or born with them, but many instances are known where it has been acquired by the persistent and judicious use of Dr. Harter's Iron Tonic.

PLEASANT VALLEY HERD

Pure-bred Berkshire Swine.



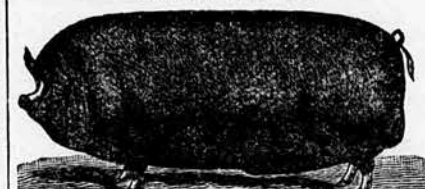
I have thirty breeding sows, all matured animals and of the very best strains of blood. I am using three splendid imported boars headed by the splendid prize-winner Plantagenet 2919, winner of five first prizes and gold medal at the leading shows in Canada in 1881. I am now prepared to fill orders for 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.

JAMES ELLIOTT Abilene, Kansas,



Breeder of HIGH CLASS BERKSHIRE 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 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.

PURE-BRED Berkshire and Small Yorkshire SWINE.



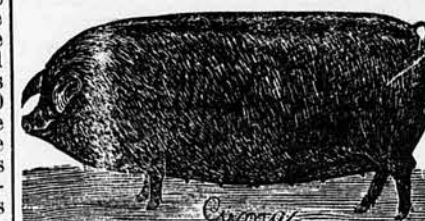
We are breeding 25 of the best selected sows of the above named swine to be found in the country, direct descendants from Imported Sires and Dams. We are prepared to fill orders for either breed, of both sexes, at the very lowest prices.

We have tried Small Yorkshires thoroughly, and are satisfied that they cannot be excelled as a profitable hog to raise. They are very docile and mature rapidly. Send for prices and catalogue to

WM. BOOTH & SON,
Winchester, Jefferson Co., Kas.

Pioneer Herd of Holstein Cattle

—AND— DUROC JERSEY SWINE.



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

If you want
A YOUNG SOW,
Bred to our crack
Boars;
If you want
A YOUNG BOAR
Pig;
If you want
A YOUNG SOW
Pig;
If you want
to place an order for
A SPRING PIG;

POLAND-CHINA
SWINE.

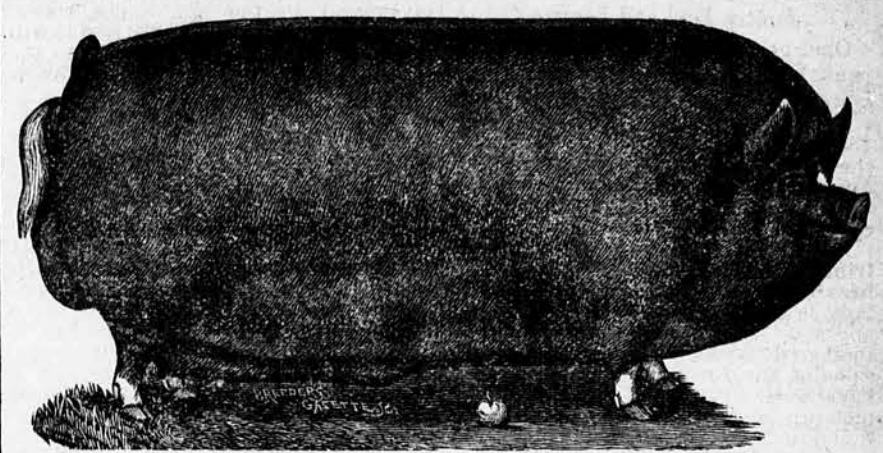
If you want
A SETTING OF
Plymouth Rock
Eggs, at \$1.50;
If you want
a Thoroughbred
SHORT-HORN
BULL,
From \$100 to \$125.
Write to
MILLER BROS.,
Junction City,
Box 298. - Kas.

Acme Herd of Poland Chinas



At the head of our select herd of 25 matured sows, stand two noted boars, Kentucky King 2661 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 "gilt-edge," prices reasonable and satisfaction guaranteed. Address STEWART & BOYLE, Wichita, Kas.

Manhattan Herd of Berkshires



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

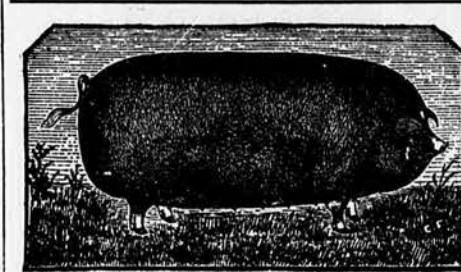
SOVEREIGN DUKE 3819, at head of famous Manhattan Herd. Among many other honors, elsewhere, this splendid sire won five blue ribbons during two successive years at the great St. Louis fair, including sweepstakes as best boar of any age or breed, each year, a record never attained by any other boar.

At the St. Louis and other leading fairs of 1882, the Manhattan Herd sustained its well-earned prize-winning reputation of former years by winning a majority, over all competitors, of the premiums competed for, being 13 sweepstakes and 53 prizes for that year.

Until the present time I have been unable to supply the demand from some fourteen States and Territories for my swine, but I now have about 40 very choice young Boars and Sows old enough to use, that I will sell at a price to suit the times.

A case of Cholera has never occurred in my Herd, which has come through the past severe winter in very thrifty condition. Twelve different families of Sows and five noted Boars in use. Satisfaction guaranteed. Send for Catalogue to

A. W. ROLLINS, Manhattan, Kansas.



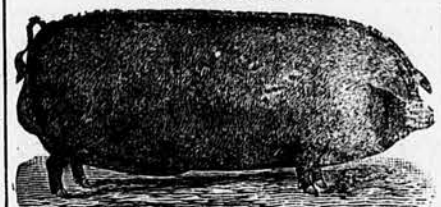
TIMBER LINE HERD

HOLSTEIN CATTLE and POLAND-CHINA PIGS.

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

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

Poland-China and Berkshire HOGS.

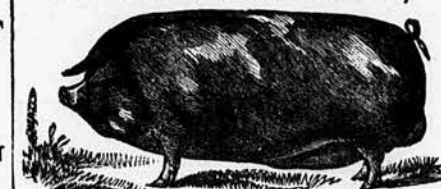


We have for sale a fine lot of Poland-China and Berkshire Pigs, from 2 to 6 months old. Ours is the largest herd of pure-bred swine in the State, and the very best strains of blood of each breed. If you want any of our stock write us and describe what you want. We have been in the business many years,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

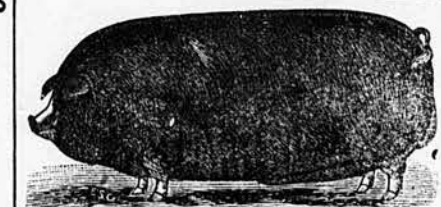
RANDOLPH & RANDOLPH,
EMPORIA, LYON CO., KANSAS.

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

Dr. Thomas Blackwood,



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



RANKIN BALDRIDGE, Parsons, Kansas,

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

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 150 sows and 10 males we are breeding from. Our breeders are all recorded in American P.-C. Record. Pigs all eligible to record. Photo card of 43 breeders free. Swine Journal 25 cts. in 2 cent stamps. Come and see our stock; if not as represented we will pay your expenses. Special rates by express.



Owned by ISAAC WOOD, Oxford, Sumner Co., Kas.

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

MEADOW BROOK HERD



OF POLAND-CHINA SWINE.

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

JELLEY & FILLEY, Proprietors,
KINGMAN, KANSAS.



REGISTERED

POLAND-CHINA.

62 Page Illustrated

Manual. Sent free

on application to

Shepard & Alexander,

Charleston, Illinois.

The Poultry Yard.

Poultry Feed and Feeding.

One prime essential to success in poultry raising, says a late writer, is a system of feeding, that will be most economical and at the same time, yield the most profit. Our chief reliance for the support of our poultry is grain of different kinds, for these contain the greatest amount of nutriment in a concentrated form.

But while grain contains all the nutriment necessary to sustain animal life, it will not do to feed on grain alone; bulk is as much required as nutriment, and must be considered in feeding our feathered flocks. Grass is a favorite salad of the fowls in summer, and we have seen with what eagerness they pick up stray hay leaves, and chaff, found upon the barn floor and about the barn yard in winter.

It is absolutely necessary that fowls should have some kind of vegetable food in winter. Chopped potatoes, onions or cabbage, is an excellent substitute, for the grass and herbage they get when abroad in the spring and summer months, and which they cannot provide for themselves when confined to winter quarters. One of the best things for winter use we have found to be fine hay or "latter crop," cut very fine by running through a hay-cutter, being very useful in furnishing that bulk to the diet which is so necessary to the healthy state of the digestive organs.

In some of the earlier importations of blood cattle from Great Britain, many of them died for want of hay. They had plenty of grain for their daily food, and, though amply sufficient to sustain life so far as its nutritive properties was concerned, was nevertheless deficient in the property of distending the stomach of the animals, and thus to assist in the process of digestion. As it was impossible on shipboard to get a supply of hay, the keeper in charge as a last resort caused the extra fine spars on board to be shaved fine as a substitute for hay; on this food mixed with their usual diet, the remaining animals entirely recovered before reaching the end of their journey.

Some years ago during a long and severe winter, many fowls acquired the disgusting habit of feather eating; by feeding all the chopped hay they would eat, they were entirely cured of the pernicious habit. Of all the grain usually fed to stock, corn is the most valuable for fattening purposes, and is more largely fed to poultry than all other grains combined; but as an exclusive diet for laying stock, is injudicious and unprofitable, being too heating, and too fattening as a rule; according as hens take on fat, they fall off in laying, and this fact should be kept in mind in feeding. Chemical analysis shows that as a fat producer, corn stands first among all our cereals, and as a flesh producer, last with the single exception of buckwheat. Wheat contains all the elements in just proportion to sustain animal life, and is the best food that can be given to fowls, both young and old, the year through. It helps the laying qualities of the hens, is easy of digestion, but should be used with moderation as an excess of this grain fed raw will prove too laxative, a condition that should be guarded against always.

Oats are very rich in flesh forming material, more so than any other grain, and is one of the best grains we have for young fowls.

Barley is the richest grain in mineral matter, and is therefore very good for furnishing the material so much needed for bones in the rapidly developing frames of growing chicks.

Buckwheat stands highest as a producer of gum and fibre, and lowest as a flesh producer. While this grain is but little fed in this country by poultry raisers, it is very generally used in France, and is supposed to aid materially in producing the enormous quantity of eggs marketed by the French people. It is said in western New York, that a bushel of buckwheat and a bushel of oats will produce a bushel of eggs.

For a general feed to be used at all times for adult fowls, and especially for laying hens, we have found that oats, cracked corn, and shorts in equal parts, with a little salt, scalded and fed warm, is best for the morning meal. Boiled potatoes or turnips, mashed fine may be fed to great advantage mixed with the first meal. Into this mashed feed, regular twice a week, may be sprinkled a little ginger or cayenne pepper; these are powerful stimulants and will greatly hasten egg production, besides being an

excellent corrective for the cold season. Do not forget to add a little sulphur once a week. The necessity of this will be obvious when we state, that sulphur is present in the bill, scales, claws, feathers and eggs of fowls, and it will impart a rich glossy appearance to the plumage, so often seen in the show room.

Feed oats or wheat at noon; the last meal should be of whole corn slightly warmed in winter; this is slow to digest and helps to keep up a good degree of animal heat in the system during the long cold nights of our northern winters.

Fowls feed with great voracity, but their greediness is no criterion by which we are to judge of the possibility of satisfying them; as a rule one gill of grain or its equivalent for each fowl a day, is amply sufficient for all their needs. With this attention and care, and a constant supply of coarse gravel and ground oyster shell, and the indispensable dust, to both which they can have free access at all times, if your fowls do not give you a generous supply of eggs during the winter season, they are not of the laying kind.

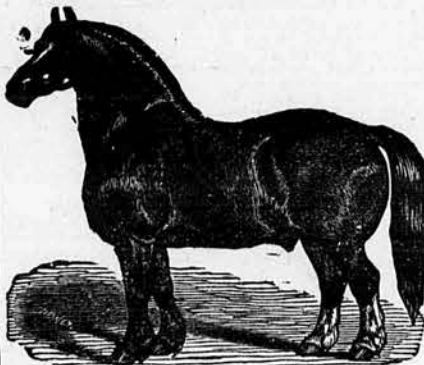
River Side Stock Farm.



DEGEN BROTHERS, Ottawa, Ill.

Importers of NORMAN HORSES. Large selection of imported stallions and mares—50 head imported this season. We are also breeding full-blood and high-grade Normans. Having purchased the old State Fair Ground, we are fitting up one of the best sale barns and breeding establishments in the State, and will be pleased to show our horses to visitors. Correspondence invited. DEGEN BROS., Ottawa, Ill.

—175 HEAD OF— IMPORTED CLYDESDALES Now on Hand.



The largest importer of Clydesdale horses, the largest breeder of pure Clydesdales, 57 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.



GRESS BROS.,

NORTH HILL STOCK FARM, Washington, Tazewell Co., Ill. Importers and breeders of Clydesdale, English Draft and Norman horses. With our recent addition of a large importation August 20th together with those previously on hand, have now one of the finest assortments in Illinois. CLYDESDALES made a specialty. Quite a number of them have distinguished themselves both in Europe and America as prize-winners this season. All are superbly bred. Visitors welcome, and all parties in need of such high-class stock would do well to give us a call and save money, as we will convince you when you call. Send for catalogue. Reasonable prices. Terms easy.



Every animal selected by a member of the firm in person.

HOLSTEIN CATTLE.

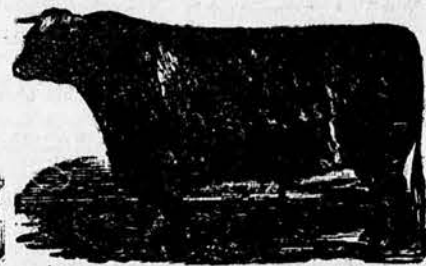
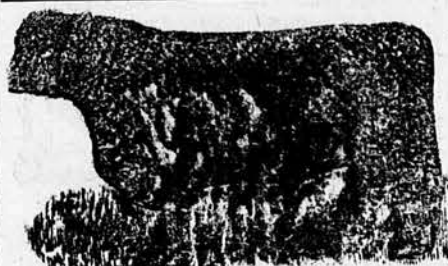
550 Head on Hand.

Over thirty yearly records made in this herd average 14,212 lbs. 5 ozs.; average age of cows four and a-half years. In 1881 our entire herd of mature cows averaged 14,164 lbs. 15 ozs. In 1882 our entire herd of eight three-year-olds averaged 12,388 lbs. 9 ozs. April 1, 1884, ten cows in this herd had made records from 11,100 to 18,400 lbs., each, averaging 15,608 lbs. 6 3/10 ozs. For the year ending June 1884 five mature cows averaged 11,621 lbs. 12 5/10 ozs. Seven heifers of the Nether and Family, five of them two years old and two three years old, averaged 11,616 lbs. 12 5/10 ozs.

BUTTER RECORDS.

Nine cows averaged 17 lbs. 5 1/2 ozs. per week. Eight heifers three years old, averaged 15 lbs. 4 3/4 ozs. per week. Eleven heifers two years old and younger averaged 10 lbs. 3 ozs. per week. The entire original imported Netherland Family of six cows (two being but three years old) averaged 17 lbs. 6 1/6 ozs. per week. When writing always mention the KANSAS FARMER.

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



THE LEONARD BROTHERS

Importers and Breeders of

Galloway, Aberdeen-Angus and Short-Horn

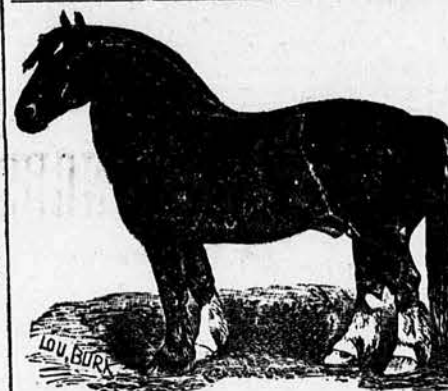
CATTLE,

SPANISH - JACKS - AND - JENNETS,

MOUNT LEONARD, : : : : MISSOURI

A very choice lot of Black Poll and short horn Grades for sale. Carload lots a specialty for Ranchmen. We have some of the largest and choicest herds of Pure-bred Stock to select from. Prices Reasonable. Call on or address

LEONARD BROTHERS, Mount Leonard, Missouri.



GALBRAITH BROS.,

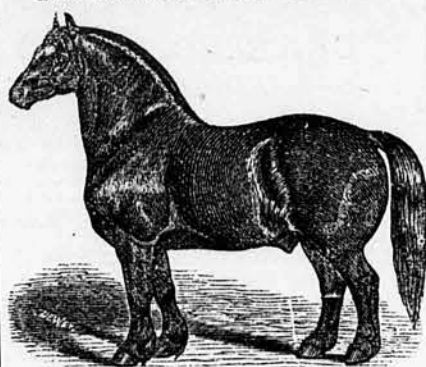
Janesville, Wisconsin,

Breeders and Importers of

Clydesdale Horses

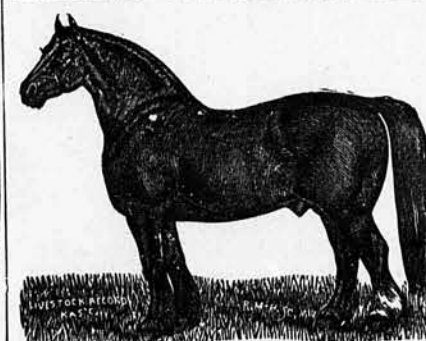
Have at present on hand a splendid collection of Stallions and Mares of all ages, and every animal guaranteed. On buying facilities being unequalled, we can offer our stock cheaper than the same quality can be bought at elsewhere. Send for illustrated catalogue. Correspondence invited. Visitors welcome. Janesville is 91 miles from Chicago by the C. & N. W. R. R. and 20 miles from Rock Island by the C. M. & St. Paul railroad.

PERCHERON NORMAN, CLYDESDALE and ENGLISH DRAFT HORSES.



E. BENNETT & SON

Importers and Breeders,
Topeka, Kansas.
All stock registered. Catalogues free



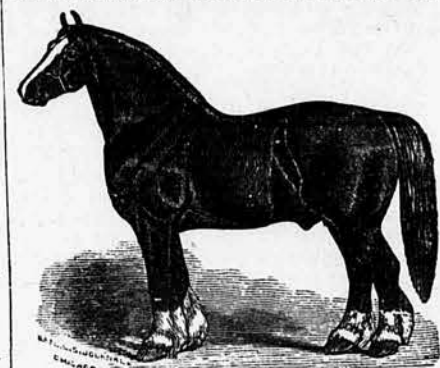
JOHN CARSON, Winchester, Kansas

Importer and Breeder of
Clydesdale & Percheron-Norman Horses.

On lot stock for sale. Also some fine Graded. Correspondence invited and satisfaction guaranteed. I have some Jacks for sale.

OVER ONE HUNDRED CLYDESDALE, ENGLISH DRAFT AND PERCHERON NORMAN

Stallions and Mares arrived in August, '84.



Another importation just received, ages range from two to four years old. Our stock won fifteen premiums at the Iowa State Fair of 1884; also sweeps stakes on Clyde dale stallions and sows stakes on Percheron-Norman stallions. 300 High-Grade Mares, in foal to our most noted horses, for sale. Advancing offered to customers at our ranch. Many years' experience in importing and breeding. Immense collections, variety of breeds, enabling comparison of merits. The best of everything. A world-wide reputation for fair and honorable dealings. Close proximity to all the through railroad lines. Low rates of transportation and general facilities. Visitors welcome at our establishment. Ranch 2 miles west of Keota, Keokuk Co., Iowa, on the C. R. I. & P. R. R.; 16 miles west of Washington, Ia. HINGMASTER & SONS, Keota, Keokuk Co., Iowa.



Cures all Open Sores
on Animals
from any
cause.

At
Harness or
Drug Stores.
50 Cents a Box.

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

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

The Justice of the Peace shall within twenty days from the time such stray was taken up, (ten days after posting) make out and return to the County Clerk, a certified copy of the description and value of such stray. If such stray shall be valued at more than ten dollars, it shall be advertised in the KANSAS FARMER in three successive numbers.

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

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

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

In all cases where the title vests in the taker up, he shall pay into the County Treasury, deducting all 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 March 25, '85.

Lyons county—Roland Lakin, clerk.

FILLEY—Taken up by J. T. Kirkendall in Emporia tp., Feb 14, 1885, one 2-year-old iron-gray filley, white face; valued at \$50.

HEIFER—Taken up by A. P. Walstrom, in Waterloo tp., one roan yearling heifer, white on belly, no marks or brands; valued at \$12.

2 STEERS—Taken up by E. J. DeLong in Tremont tp., Dec 5, 1884, two red and white spotted steers one a yearling and one 2-year-old, no marks or brands; valued at \$25 and \$30, respectively.

STEER—Taken up by J. W. Morgan, in Fremont tp., Feb 19, 1885, one light roan yearling steer; valued at \$25.

Jefferson county—J. R. Best, clerk.

STEER—Taken up by Richard Science, in D-laware tp., Nov 1, 1885, one light red steer, some white spots on sides, star in forehead, no marks or brands, 1 year old spring of 1884; valued at \$15.

Osage county—C. A. Co-trell, clerk.

HEIFER—Taken up by J. W. Nicolav, Pop Corn P.O., Feb 9, 1885, one light roan heifer with red ears, no marks or brands; valued at \$15.

Wabunsee county—H. G. Licht, Clerk.

STEER—Taken up by Margaret Krintz, P. O. Bismark, March 4, 1885, one yearling steer, under but left ear dim brand on right hip not discernible; valued at \$10.

Brown county—G. I. Prewitt, clerk.

STEER—Taken up by F. Cashman, in Poshatan tp., one red steer 1 year old, white spot in forehead, no other marks or brands.

Greenwood county—A. W. Hart, clerk.

STEER—Taken up by Wm Lunders, in Eureka tp., March 2, 1885, one white 2-year-old steer, crop and under bit in right ear, ears light yellow. Light yellow spots on sides of neck and on shoulders; valued at \$20.

PONY—Taken up by W. O. Claycomb, Salem tp., March 2, 1885, one brown mare pony, 13 or 14 hands high, heavy mane and tail, branded on left hip and shoulder with an indistinct brand supposed to be a ship anchor.

HEIFER—Taken up by John Willis, in Bachelor tp., Feb 7, 1885, one red yearling heifer, with white on face and belly some white on tail, no marks or brands; valued at \$10.

STEER—Taken up by D. Cravens, Bachelor tp., Jan 2, 1885, one roan-speckled yearling steer, white on back and belly, no marks or brands; valued at \$15.

Strays for week ending April 1, '85.

McPherson county—E. L. Lomis, clerk.

2 GEELINGS—Taken up by J. W. Moore, in Castle tp., March 5, 1885, two gelding, each about 16 hands high and weighing about 1,000 pounds each, one is a light bay and the other a dark bay, no visible marks except harness marks, both had on leather halters—except with short rope, the other with short chain attached; valued at \$125 each.

Smith county—J. N. Beacorn, clerk.

COW—Taken up by B. O. Williams, in Lincoln tp., one pale red cow, point of right horn broken off, white spot on belly, thin in flesh; valued at \$25.

Russell county—H. C. Hibbard, clerk.

STEER—Taken up by J. J. Johnson, in Fairview tp., February 13, 1885, one deep roan yearling steer, no marks or brands.

Strays for week ending April 8, '85

Linn county—J. H. Madden, clerk.

MARE—Taken up by Lemuel Downing, in Lincoln tp., February 25, 1885, one black mare, 10 years old, left hip knocked down, blind in right eye; valued at \$25.

Harvey County—John C. Johnston, clerk.

HORSE—Taken up by J. L. Renolds in Darling on tp., March 7, 1885, one medium-sized black gelding, star in forehead; valued at \$50.

Smith county—J. N. Beacorn, clerk.

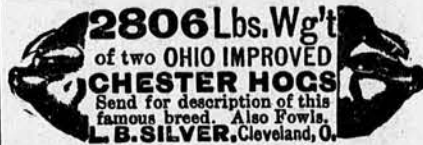
PONY—Taken up by Jasper Lishner, in Harlemt. tp., March 21, 1885, one pony mare, 4 years old, 13 hands high (color not given) white hind feet.

MULE COLT—By same, March 10, 1885, one dark brown horse mule colt, about 1 year old.

Pottawatomie county—L. W. Zimmerman, clerk.

COLT—Taken up by Henry Rheht, in Spring Creek tp., February 7, 1885, one bay mare colt; valued at \$25.

COLT—By same, same time and place, one iron gray colt; valued at \$40.



LEXINGTON COMBINATION SALE CO.

—Will Sell at—

LEXINGTON, KENTUCKY,

April 23, 24 and 25, 1885,

200 HEAD OF

High-Bred Horses!

For track, road, coach, saddle, family and breeding purposes.

The get of Alexander's Abdallah, Dictator. Almont, Harold, Onward, Mambrino Patchen, Woodford Mambrino, Mambrino Russell, Alcantara, Alcione, Young Jim, Jay Bird, Mambrino King, Shelby Chief, Red Wilkes, George Wilkes Jr., Governor Sprague, Hambletonian Mambrino, Strathmore, King Reno, Belmont, Triton, Blackwood, Ajax, American Clay, etc.

Send for Catalogue to W. R. BRASFIELD, Manager.

P. P. JOHNSON, Treasurer.

R. E. EDMONSON, Auctioneer.

PUBLIC SALE!

—OF—

ABERDEEN-ANGUS Cattle.

T. W. HARVEY, of TURLINGTON, NEB.,

—Will offer at—

Riverview Park, Kansas City, Mo.,

On Wednesday, May 6, 1885,

20 HEIFERS and 10 BULLS!

All prize-winners, or the produce of prize-winners.

For any further particulars or sale Catalogue, address

T. W. HARVEY, Turlington, Nebraska.

IMPORTANT

PUBLIC SALE

—OF—

45 Head of Choice Pure-bred

ABERDEEN-ANGUS BULLS and FEMALES,

—AT—

Riverview Park, Kansas City, Mo.,

—ON—

WEDNESDAY, APRIL 29th, 1885.

—The property of—

The Geary Bros. Co., Bothwell, and Geary Bros., London, Canada.

This offering comprises a series of the choicest representatives of the breed, from the

CRICAS, PRIDES, PRINCESS, LADY IDA, and other noted families.

The Females have calves at foot or are in calf, and are exceptionally well bred. The Bulls are choice yearlings and two-year-olds, and are a splendid lot of animals.

They will also sell two car loads of choice ANGUS GRADE BULLS at the close of sale of pure-bred stock.

Sale positive Catalogues ready.

Address

GEARY BROTHERS,

London, Ontario, or

WALTER C. WEEDON & CO.,

(Sale advertisement,) Kansas City, Mo.

GREAT HEREFORD SALE

The choicest herd of Herefords ever offered at Public Sale, will be sold at

Riverview Park, Kansas City,

APRIL 15, 1885.

This sale will include about 40 Cows and Helpers and 20 Bulls and Bull Calves, representative of the best blood in England, descended from the best herds of Lord Bateman, Aaron Rogers, Philip Turner, R. S. Burton, Thos Nott, T. J. Carwardine, Major Carlyon, and other noted breeders of the choicest pedigrees and individual merit. As I am moving out of the country the BEST will be sold. A herd that I have spent 15 years in breeding and collecting. The Anxiety Bull, Troubadour 10220, has proved himself, as a breeder, the peer of any bull living. Emperor 2d 12435, is a wonderfully good two-year-old.

Catalogues sent to all applicants.

G. S. BURLEIGH, Mechanicsville, Iowa.

L. P. MUIR, Auctioneer.

N. B.—About 60 Grades, of both sexes, will be sold at same time, among them some good ones for Fat Stock Shows.

300 SHORT-HORN CATTLE AT AUCTION.

Central Missouri Series

—OF—

SHORT-HORN SALES!

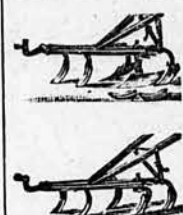
April 28th, 29th and 30th, and May 1st, 1885.

SALINE COUNTY BREEDERS' ASSOCIATION will sell at Marshall, Mo., April 28th and 29th, 1885. For Catalogues address, T. C. RAINEY, Secretary, Marshall, Mo.

LAFAYETTE COUNTY BREEDERS' ASSOCIATION will sell at Higginsville, Mo., April 30th, 1885. For Catalogues address Wm. G. NEALE, Higginsville, Mo.

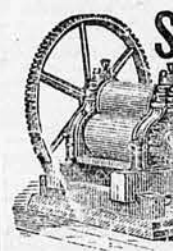
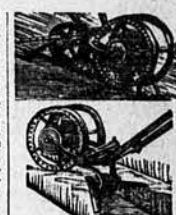
PETTIS COUNTY BREEDERS' ASSOCIATION will sell at Sedalia, Mo., May 1st, 1885. For Catalogues address FRANK CRAYCROFT, Sedalia, Mo.

The number and character of these offerings, and the easy and comfortable railroads connections and accommodations between these points, render this series one of the most attractive, if not altogether the most important, that will occur this season in the West. Apply at once for Catalogue and arrange to attend the great Central Missouri Series of Short horn Sales.



THE "PLANET JR" HOLLOW STEEL STANDARD HORSE HOE

A lately introduced, has no equal in the world. Its excellent work in the field has distanced that of all competitors. It is, in some sections, doing in one passage, the work of four or five old-style implements, and in others superceding the cumbersome and expensive two-horse tools. The "PLANET JR" HAND SEED-DRILLS AND WHEEL HOES are the newest and best, lightest and strongest known. There are 7 distinct tools, each with special merits, no two alike or the same price; all practical and labor-saving. Let no Farmer or Gardener fail to study up during the winter evenings our 1885 CATALOGUE, which gives reduced prices, careful and exact engravings of these different machines, and such descriptions as will enable the reader to judge correctly of their merits. Thirty pages and forty engravings. Free to all. Correspondence solicited. S. L. Allen & Co., Mfrs. 127 & 129 Catharine St., Phila., Pa.



SUGAR MILLS

Eighty Sizes, for Hand, Animal, Steam and Water Power.

The Best. The Cheapest

Thousands are Now in Use.

We are this year selling direct to the farmers giving them the benefit of Agents' discount for cash. Northern Case Manual FREE on application. Address The Geo. L. Squier Mfg Co., Buffalo, N. Y.



ECLIPSE POST HOLE DIGGER.

The Greatest LABOR-SAVING tool ever invented for digging holes in the ground. This machine works on a new principle, and is unlike anything in the market. It is neither an Auger nor a Plunger, but is driven in the ground with a driving rod, which works in a pipe similar to a telescope. We claim for this tool:

1st. That one man can dig from two to three hundred holes two feet deep in ordinary ground in one day.

2d. That it will dig holes any size or depth required.

3d. That it will work successfully in very hard or rough ground where other diggers and augers will not work at all.

4th. You stand up straight while using it, consequently no back-breaking work is required.

It will pay you to send for descriptive circulars and prices to COLE & FLEMING, Mfrs., Springfield, Ohio.

EUREKA MOWER Wide Front Cut And Direct Draft.

The only successful CENTER DRAFT MOWER manufactured. The lightest Draft Mower in the world. With largely increased capital, new and extensive buildings, equipped with special machinery and skilled workmen, we are prepared to furnish a Mower that HAS NO EQUAL.

AGENTS WANTED

IN ALL UNOCCUPIED TERRITORY. SEND FOR ILLUSTRATED CATALOGUE.

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SOMETHING ENTIRELY NEW!

Buy the Porter Hay Carrier, the only carrier that uses this new improvement. Ask your Dealers or send to J. E. PORTER, Ottawa, Ill., for circular showing this new invention. Pat. April 17, 1883.

50 ELEGANT, New Engraved and Satin CHROMO CARDS, name on, loc. F. Lawrence, Hartford, Wis.

PATENTS obtained by Louis Bagger & Co., Attorneys, Washington, D. C. Established 1864, Advice free.

The Busy Bee.

Seasonable Hints to Unprofessional Bee-Keepers.

J. L. Harris, in *Farm, Field and Stockman* thus discourses:

Bee keeping and honey producing has reached such proportions that most agricultural and weekly newspapers find it to their interest to devote a portion of their space to this pleasant and profitable industry. So far as our observation extends, it has been the custom of those having this department in charge to conduct it to the interest only of those more or less proficient in the use of improved hives and implements, which modern apiarists (bee keepers) find indispensable to the greatest success. While this makes interesting reading for the proficient bee keeper, and gives the various writers of "accepted" articles an opportunity to see their usually well written and mostly valuable articles in print, it is of little or no value to a large per cent. of the general readers who know little or nothing of the modern modes of apiculture, and who have no time or disposition to become proficient in bee keeping. To this latter class we propose devoting a few articles and seasonable hints in this journal—using such terms and occasional illustrations as will best assist the busy farmer, and those keeping a few colonies, in securing a much larger supply of honey for their own tables, without radical or expensive changes in their present management. The first to claim our attention are the bees. The proper term to apply to a family of bees, in a hive, is a "colony." Sometimes they are designated as hives, skeps, gums, swarms, etc., each of these being local in their use. These bees consist of three classes, viz: drones, masculine; queen, feminine; workers, undeveloped females (sometimes improperly called neuters.)

Drones—These emerge from the cells in twenty-six days from the time the queen deposited the eggs. These, being "lords of creation," gather no honey nor perform any of the duties of the colony, except the fertilization of the young queens. Their numbers may be thousands, but should be only dozens, as they are great gluttons and consume a large amount of honey, for which they render no equivalent, when their numbers exceed the requirements of the colony. This class hatches about the middle of May, and remain until about the middle of September, when they are thrust from the hive and killed by the worker bees, as there is no further need of them until the return of warm weather.

Queen—There is only one queen in each colony, and she, the only perfectly developed female and the mother of all the bees, is the most important member of the family. She is certainly at the "head" (as well as the foot) of this class. She hatches in sixteen days from the egg, and ordinarily a day or two after the bees have swarmed. When about ten days old, alone she leaves the hive, usually between 12 o'clock m. and 2 o'clock p. m., on her "wedding trip." Having met the drone, in the air, she immediately returns to the hive. The second day thereafter, she begins to lay the eggs which are to produce the various classes of bees for the future maintenance of the colony. She never again, under any circumstances, voluntarily leaves the hive until the next swarm leaves the present hive, when she goes with them, leaving, in her old home, a queen-cell soon to hatch a young queen, who is to become the mother of the home colony. She lives to the age of two or three years (has been known to live five years) and is capable of laying 2,000 or 3,000 eggs daily, during the warm months of her existence. In case she is removed, by death or otherwise, the worker bees proceed to rear another in her stead, provided she has left eggs in the hive not over four days old. This they do by making a larger or queen cell around one of these eggs, and depositing a much larger amount of food (called royal jelly) within, than is used in the production of bees of either of the other classes. In case no egg is left, they are unable to rear another queen, and the colony soon dwindles and is lost, unless the bee keeper comes to their rescue. The how this is done, will be in a future article.

The workers are by far the most numerous, there being from 15,000 to 40,000 in each colony. These gather the honey and pollen, or bee bread, make the wax,

build the comb, feed and rear the young, guard the hive from mice, insects, moths and any and all of their enemies—not forgetting the "inquisitive boy." These, too, are the only bees that sting. They hatch in twenty-one days from the time the egg is deposited in the cell, and their length of life depends much upon the season of the year in which they were hatched. Those hatched in September and October usually live until spring, the last of them dying during May. There is usually no young reared from the middle of October till the first of March, at which time brood raising begins for the season, and the life of the workers, from this time until fall frosts kill the blossoms, is only from forty to sixty days. During the honey gathering season they are out gathering their stores of sweets and subject to so many of their enemies, such as winds, cold, birds, insects, spider webs and many others that there is a great daily mortality. The size of the colony is only kept up by the continuous rearing of young bees to take the place of their unfortunate predecessors, hence the necessity of the very great number of eggs the queen is required to produce daily during the working season of the bees.

Wants the Facts Known.

MR. EDITOR: I and my neighbors have been led so many times into buying different things for the liver, kidneys and blood that have done us more harm than good, I feel it due your readers to advise them, when an honest and good medicine like Dr. Harter's Iron Tonic can be had. Very truly,
AN OLD SUBSCRIBER.

A teamster in Maine says he can start the worst balky horse by taking him out of the shafts and making him go round in a circle till he is giddy. If the first dance of this sort don't cure him the second will.

YOUNG MEN!—READ THIS.

THE VOLTAIC BELT CO., of Marshall, Michigan, 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.



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PERMANENT AND RELIABLE.

DRS. MULVANE, MUNK & MULVANE,
Physicians and Surgeons in charge.

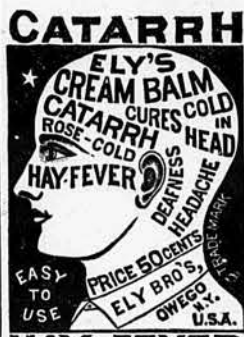
Treat successfully all curable diseases of the eye and ear. Also catarrh of the nose, throat and lungs, by new and sure methods.

All Manner of Chronic, Private and Surgical Diseases Successfully and Scientifically Treated.

Patients Treated at Home,
BY CORRESPONDENCE.

Send for circular and printed list of questions. Correspondence and consultation strictly confidential.

DRS. MULVANE, MUNK & MULVANE,
86 east sixth street, Topeka, Kansas.



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 spreads forth a poisonous virus along the membranous linings and through the digestive organs, corrupting the blood and producing other troubles and dangerous symptoms.

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

HAY-FEVER 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 drug-gists; 60 cts. by mail, registered. Sample bottle by mail 10 cts.

ELY BROTHERS, Druggists, Owego, N. Y.



COLLEGE OF THE SISTERS OF BETHANY.
TOPEKA KANSAS.

BETHANY COLLEGE
Under care of the Protestant Episcopal Church.
For Girls and Young Ladies exclusively. Boarding and Day Pupils.
Twenty-six Officers and Teachers.
Faithful Maternal oversight for all entrusted to our care.
All branches taught—Kindergarten, Primary, Intermediate Grammar and Collegiate; French, German, the Classics, Instrumental and Vocal Music, Elocution, Drawing, Painting.
The Music Department employs eight teachers and twenty pianos and three organs. In the Art Department the Studio is fully equipped with casts, models and copies.
Send for Catalogue to T. C. VAIL, Bursar, or BISHOP P. VAIL, President, Topeka, Kansas.

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, CATARRH AYER'S SARSAPARILLA is the number one remedy. It has cured numerous 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. 23, 1882.
"At the age of two years one of my children was terribly afflicted with ulcerous running sores on its face and neck. At the same time its eyes were swollen, much inflamed, and very sore. Physicians told us that a powerful alternative medicine must be employed. They united in recommending AYER'S SARSAPARILLA. A few doses produced a perceptible improvement, which, by an adherence to your directions, was continued to a complete and permanent cure. No evidence has since appeared of the existence of any scrofulous tendencies; and no treatment of any disorder was ever attended by more prompt or effectual results.
Yours truly, B. F. JOHNSON."

PREPARED BY

Dr. J. C. Ayer & Co., Lowell, Mass.
Sold by all Druggists; \$1, six bottles for \$5.

OPIUM SLAVERY!

By means of the now celebrated remedies of Dr. KANE, (late Supt. of the Dequency Opium Hospital in N. Y., and author of several books on Opium, the worst cases of the Opium and Morphine Habits can be easily, thoroughly and speedily cured at home. No pain, nervousness, or lost sleep. A certain and reliable cure, endorsed by the Medical profession. No Quackery, Deceit or Humbug. No confinement, restraint, or interference with business. PAMPHLET, with full particulars, charges, prices and medical endorsements and testimonials, sent for 6 cents in stamps securely sealed. Letters invariably confidential. Dr. HENRY H. KANE, 19 E. 14th St., New York.

CONSUMPTION.

I have a positive remedy for the above disease; by its use thousands of cases of the worst kind and of long standing have been cured. Indeed, no stronger is my faith in its efficacy than I will send TWO BOTTLES FREE, together with a VALUABLE TREATISE on this disease, to any sufferer. Give express & P. O. address. DR. T. A. SLOCUM, 181 Pearl St. N. Y.

Self Cure Free
Nervous Debility Lost Manhood Weakness and Decay
A favorite prescription of a noted specialist (now retired.) Druggists can fill it. Address
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Are unequalled in EXACTING SERVICE.

Used by the Chief Mechanician of the U. S. Coast Survey; by the Admiral commanding in the U. S. Naval Observatory; for Astronomical work; and by Locomotive Engineers, Coaches and Railwaymen. They are recognized as the most accurate and durable in the world. Sold in principal cities and towns by the COMPANY'S exclusive Agents (Leading Jewelers,) who give a Full Warranty.

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TOPEKA, : : : KANSAS.



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EDUCATION PAYS!

The KANSAS STATE AGRICULTURAL COLLEGE

—OFFERS—

TO FARMERS' SONS AND DAUGHTERS

A full four years' course of study in English and Sciences most directly useful on the farm or in the home with careful training in the industrial arts adjusted to the wants of students throughout the State, with shorter courses in common branches, and all

Tuition Free.

Other expenses are reasonable, and opportunities to help one's self by labor are afforded to some extent. The work of the farm, orchards, vineyards, gardens, grounds and buildings, as well as of shops and offices, is done chiefly by students, with an average pay-roll of \$300 a month.

THE TWENTY-SECOND YEAR OF THE COLLEGE BEGINS SEPT. 10TH, 1884.

with eighteen instructors, 395 students, buildings worth \$90,000, stock and apparatus worth \$40,000, and a productive endowment of \$475,000.

For full information and catalogue address
PRES. GEO. T. FAIRCHILD,
Manhattan, Kansas.

BUTTER AND CHEESE

making apparatus and supplies of every description. D. H. ROE & CO., 253 and 255 Kinzie St., Chicago, Ill.

A CHANCE to secure a first-class Farm in the Red River Valley at \$3.00 per acre is an opportunity for a profitable investment that a

WISE MAN

never allows to pass; and during the past year a large number of actual settlers availed themselves of this liberal offer by the ST. PAUL, MINNEAPOLIS & MANITOBA RAILWAY CO.,

choice tracts, and commenced improvements. The Company has also many thousands of acres of choice lands, well adapted to Dairy, Live Stock and General Farming purposes, from which can be selected that cannot be excelled in any STATE in the UNION.

A FARM FOR PARTICULARS, MAPS, ETC. WRITE TO

J. B. POWER, Land Com. St. Paul, Minneapolis & Manitoba R'y Co.

ST. PAUL, MINN.

Bridle for a Stallion.

J. H. Saunders, in his new book on Horse Breeding, thus describes a bridle for an unruly stallion:

While the temper and disposition of the stallion are largely matters of inheritance, yet much depends upon the breaking and management. It is easier to spoil a horse than it is to cure him of bad habits, after these are once formed. If there is any appearance of a disposition to be "headstrong" and unruly, he should never be led out except by a bridle that will enable the groom to exercise the most perfect control over him. The one that I have found effectual is made by taking an ordinary "snaffle" bit with rings of moderate size, and with the head piece made in the usual way; get a blacksmith to attach a well polished, round iron bar to the right hand ring, by means of a small link connecting the bar and the ring; to the other end of the bar attach the usual sliding rein used on stallion bridles. Put the bridle on the horse in the usual way, and then, with the right hand on the bar and the left on the bridle-ring next to you, pass the bar back and the ring forward until the bar will pass through the ring in the left hand. This bar should be made just as long as it can be to admit of its being passed into the other ring in this manner, and the bit and the rings should be so adapted to the size of the mouth and under jaw that, when a little pressure is brought to bear upon the rein attached to the end of the lever formed by this iron bar, the rings of the bit will be brought within an inch of touching each other. The leverage given by this appliance, when well fitted, will enable any one to hold the most unruly and headstrong horse in check. It is not necessarily severe when the horse behaves himself, and when he is not disposed to do this he can very suddenly be brought back on his haunches by a moderate touch on the rein. When the bar is not needed the rein to which it is attached may be passed over the head and down through the ring on the other side, instead of under the jaw. I have described this device fully because it is cheap, simple and effective, and yet it does not appear to have been extensively used.

A St. Louis man has discovered that cat-fish skin makes excellent leather. It is light gray in color and very soft and tough.

To Dyspeptics.

The most common signs of Dyspepsia, or Indigestion, are an oppression at the stomach, nausea, flatulency, water-brash, heart-burn, vomiting, loss of appetite, and constipation. Dyspeptic patients suffer untold miseries, bodily and mental. They should stimulate the digestion, and secure regular daily action of the bowels, by the use of moderate doses of

Ayer's Pills.

After the bowels are regulated, one of these Pills, taken each day after dinner, is usually all that is required to complete the cure.

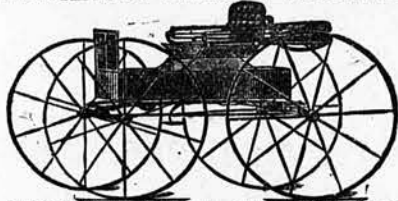
AYER'S PILLS are sugar-coated and purely vegetable—a pleasant, entirely safe, and reliable medicine for the cure of all disorders of the stomach and bowels. They are the best of all purgatives for family use.

PREPARED BY

Dr. J. C. Ayer & Co., Lowell, Mass.

Sold by all Druggists.

TIMKEN SPRING VEHICLES!

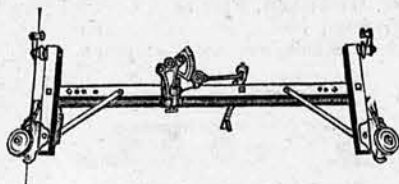


Easiest riding Vehicle made. Rides as easy as with two lengthen and shorten according to the weight they carry. Equally well adapted to rough country roads and fine drives of cities. Manufactured and sold by all the leading Carriage Builders and Dealers. **Henry Timken, Patentee, St. Louis.** Used exclusively by **ABBOTT BUGGY CO. CHICAGO, ILL.**

WORKS ON ALL PLANTERS LEADS THEM ALL! Barnes' Wire Check Rower.

TWELVE YEARS' PRACTICAL USE IN THE FIELD.

The Only Entirely Successful Wire Check Rower Ever Invented. Popular Because SIMPLE and EASY to Operate.

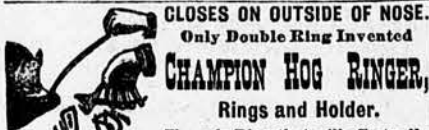


The Barnes Wire Check Rower is the first Check Rower that has ever accomplished the great object of making corn checking a perfection, thus saving both time and money.

The unprecedented sales of the Barnes Check Rower is the best and most substantial evidence of its merits, as well as of its value and importance to the farmer as a Labor Saving Machine.

The wire does not cross the machine, thus avoiding a Great Wear and Strain on the Wire and friction on the pulleys, and making a wire that does not cross the machine outwear several wires that do cross. This point is apparent to reflecting people.

CHAMBERS, BERING, QUINLAN CO., EXCLUSIVE MANUFACTURERS, DECATUR, ILLINOIS.



CLOSES ON OUTSIDE OF NOSE. Only Double Ring Invented

CHAMPION HOG RINGER,

Rings and Holder.

The only Ring that will effectually keep hogs from rooting. No sharp points in the nose.

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Only Single Ring Ever Invented that closes on the Outside of the Nose.

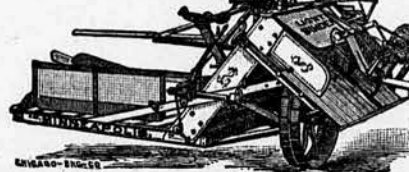
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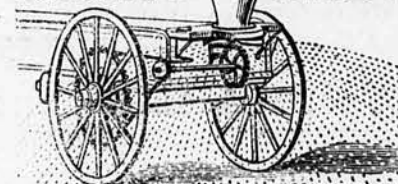
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Sows all grains, grass seeds, plaster, salt, ashes, commercial fertilizers—everything requiring broadcasting—any quantity per acre, better and faster than any other method. SAVES SEED by sowing perfectly even. Not affected by wind, as seed is not thrown upwards. Sows half or full cast, on either or both sides of wagon. Readily attached to any wagon or cart without injury, and used wherever they can be driven. Lasts a lifetime. Sows 80 acres wheat per day. Crop one-fourth larger than when drilled. Only perfect Broadcaster made; most accurate agricultural implement in the world. Endorsed and recommended by Agricultural colleges and best farmers in U. S. Fully warranted—perfectly simple. Do not be put off with any other. Send at once for new free illustrated catalogue with full information and hundreds of testimonials.

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MANUFACTURERS OF STEAM ENGINES & BOILERS.

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Covers the entire saddle, and will keep you dry in any storm. Sold everywhere. Illustrated catalogue free. A. J. Tower, Boston.

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Is the latest and BEST of all Creameries. Made of first-class materials. Durable and substantial. Cream is taken from the top, free from sediment; milk only is drawn from bottom of can. Butter made by Acme system is always gilt edged, and brings highest prices. A full line of Creamery and Cheese Factory Supplies.

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It will be rainy next summer. Then save your hay. Our circular describes the only carrier that horse returns to load, and runs either way without changing anything. Big bargain to introduce it. Don't forget this. Box 414.

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Automatic Steam Generator.

Patented August 19, 1884.

Saves one-third to one-half by cooking feed.

JERSEY CATTLE POLAND CHINA SWINE and HIGH-CLASS POULTRY. Circulars free.

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Cheapest and Best Mill

Grinding all kinds of Grain. Satisfaction Guaranteed or Money Refunded.

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will be paid for any GRAIN FAN of same size that can clean and bag as much Grain or Seed in one day as our Patent MONARCH Grain and Seed Separator and Bagger, or our Improved Warehouse Mill with Equalizer which we offer cheap. Circulars and Price List mailed free.

NEWARK MACHINE CO., COLUMBUS, O.

THE PROFIT FARM BOILER

Is simple, perfect and cheap; the BEST FEED COOKER; the only dumping boiler empties kettle in a minute. Over 7,000 in use. Cook your corn and potatoes, and save one-half the cost of pork. Send for circular.

D. R. SPERRY & CO., BATAVIA, ILLINOIS. Chicago Salesroom 287 Lake St.

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Can be attached to any cultivator; has 12 steel bull tongues, one inch wide, in malleable iron frame. Best thing ever used in young corn. Write for circulars of Attachments, Iron Duke Harrows, Equalizers, &c.

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KIMBERLIN MFG CO., Indianapolis, Ind.

NEW MODEL HIGH SPEED FEED MILL.

A new departure for sweep lever feed mills, in grinding ear and shelled corn, oats, rye, barley, etc., etc. By a system of gearing, the inner grinding cone of the NEW MODEL is made to revolve three times as fast in one direction as the grinding bell revolves in an opposite direction, greatly increasing the grinding capacity. By the use of a central screw device, used only by the NEW MODEL, the inner grinding cone is evenly raised, a decided advantage in securing accurate grinding over other makes. By use of special material the NEW MODEL have the most durable grinders made, and it is carefully constructed, hard wood only being used in its levers and boxes. Like all other meritorious inventions first coming on the market the NEW MODEL has followers, no leader, therefore buy the best. Write for Circulars.

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MICA LYLE GREASE

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IS THE BEST.

USE IT

CORN WHEAT, OATS.

My catalogue of all kinds of FIELD SEEDS will delight and please you. FREE TO ALL.

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Cahoon Broadcast Seed Sower in Operation.

No. 2 Drill—Reduced price \$10, former price \$12; Combined Drill, Wheel Hoe Cultivator and Plow combined—Reduced price \$12, former price \$15; Double Wheel Hoe Cultivator and Plow—Reduced price \$3, former price \$10; Single Wheel Hoe Cultivator and Plow—\$6; Fire Fly Plow—\$3. Steel Standard Combined Horse Hoe—Reduced price \$10, former price \$12; Steel Standard Plain Horse Hoe—Reduced price \$9.50, former price \$11; Steel Standard Plain Cultivator—Reduced price \$6.75, former price \$10.

Goods packed, ready for shipment, and delivered at Express office or Depot, upon receipt of money at above reduced prices. Order early. If you don't understand the goods, send for full descriptive pamphlet. Every Farmer, Professional or Amateur Gardener should have one or more of the above Tools.

Send for Descriptive Circulars of our Dain Improved Automatic Hay Stacker and Gatherers (our own main manufacture). Also our line of Hay and Heavy Machinery.

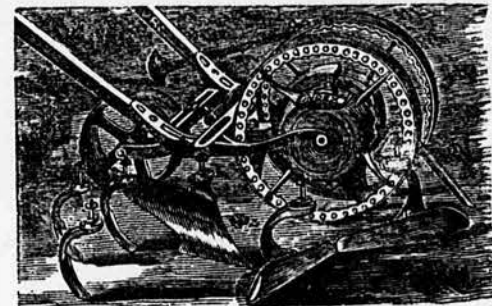
TRUMBULL, REYNOLDS & ALLEN, Kansas City, Mo.

Great Reduction in the Price of CAHOON BROADCAST SEED SOWERS.

This is the best HAND SEED-SOWER ever put up on the market, and thousands upon thousands of them have been sold. The price was \$10 each when they first came out, and never was less than \$6, until now we are able to offer them at \$5 EACH, shipped to any point in the country by express, charges prepaid. EVERY FARMER SHOULD HAVE ONE, and can afford to now, as \$5 pays the entire cost. The price soon saved, as seed can be sown accurately and not a grain need be wasted. It sows equally well in the wind. Sows Wheat, Oats, Rye, Buckwheat, Flax seed, Clover seed, Timothy, Alfalfa, Millet, Hungarian, Sorghum, Hemp, etc., at the rate of four to eight acres per hour. Directions accompany each machine. Order at once.

Great Reduction in Prices of PLANET JR.

Garden Drills and Cultivators.



Planet Combined Drill and Cultivator.

SEEDS! SEEDS! SEEDS!

THE LARGEST AND BEST STOCK OF FIELD, GRASS AND GARDEN SEEDS IN THE WEST.

5,000 Bushels Red Clover, 5,000 Bushels Timothy, 10,000 Bushels German Millet, 10,000 Bushels Kentucky Blue Grass, 5,000 Bushels English Blue Grass, 5,000 Bushels Common Millet, 10,000 Bushels Orchard Grass, 5,000 Bushels Red Top, 2,000 Bushels Alfalfa. Johnson Grass, Sorghum, Tree Seeds, Hedge Seeds, in Large Quantities. ALL NEW CROP. Send for Prices.

NOTICE WHAT OUR PATRONS SAY ABOUT OUR GARDEN SEEDS:—"Not a single ounce but what gave entire satisfaction and were every thing we recommended them to be." "Parties sent East, had no success, bought our seeds, and gave them great satisfaction." "The only strictly reliable seed sold in town." "Will buy no other," etc. Notice the testimonial of the "Kansas City Times," which represents over 1,000 families. No other Seed House can show such a record:

OSAGE MISSION, Kas., July 27, '84.—T. R. & A.: Duty to you requires us to say that the seed we bought of you gave perfect satisfaction in every particular; were considered the only strictly reliable seed sold in this town last season. It given us pleasure to make this statement.

OSBORNE, Kas., Aug. 10, '84.—T. R. & A.: Your seed have given us and our customers the best of satisfaction.

HARPER, Kas., Aug. 13, '84.—T. R. & A.: Have sold your seeds for three years. Have always found them to be just as you represented them, fine and true to name, and in fact, most of the farmers will buy nothing else. Very truly yours, WILSON & BAUMSTARK.

ARROW ROCK, Mo., July 20, '84.—T. R. & A.: The garden seed bought of you gave entire satisfaction. It all came up and gave great satisfaction to my customers.

Salisbury, Mo., July 17, '84.—T. R. & A.: We like the seed bought of you this season very well. No complaints from any of our customers. Several persons bought of us, after planting several times, seed bought of other parties, and it was success, and found our seed all right. We think another season we will do a good business selling bulk seed; as this was a new method to our people, this year, they were slow to "catch on." Yours truly, HUTCHINSON & DAVIS.

OFFICE KANSAS CITY TIMES, Nov. 20, '84.—Meyers T. R. & A.—Gen'l: We wish to say that from the thousands of packages of your garden seeds sent to our subscribers the past season as premiums, we have not received one complaint although they were guaranteed, while garden seeds procured from an Eastern house the year before were very unsatisfactory, and we had complaints from all sides. Your seeds will do to stand by.

SHERMAN, Tex., Aug. 12, '84.—T. R. & A.: I take pleasure in saying your seeds have given entire satisfaction. I guaranteed them to my customers, and upon inquiry find they were in every instance as represented. Respectfully, J. R. COLE.

FALLS CITY, Neb., Aug. 6, '84.—T. R. & A.: Have found your seeds first class in every respect. Our customers have been well satisfied with them, and we like to handle them better than the usual seed in the market. Yours, W. W. WARDELL.

If you have not used our Seeds, try them, and you will use no other. Our 1885 Catalogue, now ready, Sent Free.

Address

TRUMBULL, REYNOLDS & ALLEN, Seedsmen, Kansas City, Mo.

TWO-CENT COLUMN.

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

TURNER RED RASPBERRY PLANTS \$3 per 1,000; T. Crescent, Capt. Jack, Sharp eye and Chas. Downing Strawberry Plants, \$2 per 1,000, by S. H. Mitchell, Baldwin City, Douglas Co., Kas.

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

FOR RENT OR SALE—Creamery. Everything complete. Run one year. Creamery Co., Lyons, Kas.

FOR SALE—Pekin Combined Lister and Drill. Used one season. Price \$15. Address H. H. McGlothlin, Pleasanton, Kas.

FOR SALE—Six Berkshire Boar Pigs, ready for service. Thos. Pawling, Louisville, Kas.

JACK FOR SALE—7 years old, good foal-getter, weight 900 pounds. P. Pawling, Louisville, Kas.

FOR SALE—Almost new 6 horse-power engine. Weighs 900 pounds. Price \$150. W. R. Fish, Topeka, Kas.

Fellow Farmers:

I have a limited quantity of Jerusalem Artichokes, which I will sell at \$1.25 per bushel while the supply lasts. M. O. KEFFE, Wheaton, Pottawatomie Co., Kas.

S. V. WALTON & SON,

Box 207, Wellington, Kansas.

—Breeder of—

IMPROVED POLAND-CHINA HOGS

Of the Highest Type.

All well pedigreed Correspondence solicited

50 HIGHLY-BRED

SHORT-HORNS

At Public Sale, Dexter Park,

Chicago, Illinois, Friday, April 17th, 1885.

Send for Catalogue. Address,

F. J. BARBEE, Paris, Bourbon Co., Ky.

Holstein Cattle.

Thoroughbred and High-grade Bulls, Cows and Calves, for sale on Dairville Stock Farm, Eagle township, Sedgwick Co., Kas. Inquiries answered by J. SIMON, Agent, Sedgwick City, Kas.

THE PERCHERONS VICTORIOUS IN THE Contests of Breeds!

ONLY TWICE Have the Great Herds of the Rival Breeds of Draft Horses met in competition: First, at CHICAGO IN 1881, where the finest collection of the British and French races competed for the \$1,000 PRIZE.

offered, which was admirably won by M. W. Dunham's Herd of Percherons. Next, again at the WORLD'S FAIR at New Orleans, 1884-5, where four of the Best Herds in America of the different breeds were entered for the

\$500 SWEETSTAKES HERD PRIZE, and again M. W. Dunham's Oaklawn Stud of Percherons were victorious. Here, also, Mr. Dunham was awarded the First Prize in Every Stallion Class entered for, as follows: For Stallions 4 years old and over—29 entries—Brilliant, first; Stallions 3 years old—23 entries, Confident, first; Stallions 2 years old—13 entries, Caesar, first. Also, first for best grade 8 stallion.

M. W. DUNHAM, WAYNE, DU PAGE CO., ILLINOIS, now has the following Pedigreed Stock on Hand:

150 Imported Brood Mares, 250 Imported Stallions, Old enough for service, also, 100 Colts, two years old and younger.

140 Page Catalogue sent free. It is illustrated with Six Pictures of Prize Horses drawn from life by Ross Bonheur, the most famous of all animal painters.

H. V. PUGSLEY, Plattburg, Mo., Breeder of pure Merino Sheep. Registered in Vermont and Missouri. Also, Large flocks in the State. Plymouth Rock chickens and Bronze turkeys. Catalogues free.

2806 POUNDS WEIGHT of two OHIO IMPROVED CHESTER HOGS Sent for description of this famous breed. SILVER & SILVER, LYNNVILLE, IOWA.

Col. L. P. MUIR, Auctioneer.

TERMS OF SALE:—Cash or approved bankable paper. N. B.—Remember it was a GALLOWAY which gained highest honors on the block at New Orleans.

PUBLIC SALE OF SHORT-HORN CATTLE!

—FROM THE—

Oakland Stock Farm

HERD,

The Property of

W. S. WHITE,

SABETHA, KANSAS,

At Sabetha, Kas., Thursday, April 23d, 1885,

(The day following J. S. Lemon's sale at St. Joe, Mo.)

I will sell about 55 head of choice Breeding Short-horn Cattle. In this offering are 33 Females and 22 bulls, including the three first-prize and sweepstakes bulls at the World's Exposition, New Orleans, and some of the best young bulls ever offered in a Western sale. The disposition will consist of young Marys, Lady Elizabeths (or Lady Rys), M. Zurkas, Waterloos, Pomonaes, Amelias, Succes, Fines, Autumn Queens, and other desirable families with the best of top crosses. The Females that are old enough to calve by their side, or are most of them in calf by one of the above noted prize winning Bulls, IMP. MAZURKA 1 UKR 5278 by 4th Duke of Clarence (the best Bates Duchess Bull living), or by one of the newly bred Bulls. Sale immediately after 12 o'clock lunch. Send for Catalogue.

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IMPORTANT PUBLIC SALE.

50 Head Pure-bred Imported

GALLOWAY

BULLS AND HEIFERS,

—AT—

Riverview Park,

Kansas City, Mo., Tuesday, April 14th, 1885,

The Property of JAMES CUNNINGHAM & SON, Dalbeattie, Scotland. These cattle have been selected with special reference to the Western market. They are all recorded in both the Scotch and American Herd Books, and embrace some of the best Galloway blood. Among the Bulls being the prize-winners VINDICATOR OF CLOEBURN 1876, BRITISH HERO 1877, MARKSMAN OF DUMLAURIG 1878, and many others from prize-winning ancestors. The Heifers are descended from some of the choicest strains, and are all in calf or with calf at foot. Stock now on exhibit at Riverview Park, Kansas City, Mo. Catalogues ready. Address

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