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CANADIAN BREEDER

and
AGRICULTURAL REVIEW.

VOL. II.

TORONTO, DECEMBER 10, 1885.

No 48.

THE CANADIAN BREEDER AND AGRICULTURAL REVIEW.

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line, \$5.00 per annum.

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will not be opened for them.

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CANADIAN BREEDER,

COR. CHURCH AND FRONT STS.,
TORONTO.

S. BEATTY, MANAGER.

TORONTO THURSDAY, DECEMBER 10TH, 1885.

Advertisements of an objectionable or questionable
character will not be received for insertion in this
paper.

THIS PAPER may be found on file at GEO. P. ROWELL &
Co's Newspaper Advertising Bureau, 10 Spruce
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for it in **NEW YORK.**

N. W. AYER & SON, *Times* Building, Phila-
delphia, are agents for this paper. Files may be
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The CANADIAN BREEDER is represented in
Liverpool, England, by Mr. J. F. Reid, Chapel
Walks, where contracts for advertising may be
made and subscriptions sent.

A NEW CATTLE MARKET.

While we have no sympathy with people who
have axes to grind at the public expense, we can-
not but think it high time that something was done
toward the selection and securing of a site for a
new cattle market. It is very well known that
while the present market is not suitably placed as
far as general accessibility is concerned, that is no
its worst fault. It is not fit for the reception of live
stock, and were it made suitable at the cost of a very
serious outlay, the investment would be a foolish
one, as in a very few years the trade would outgrow
the limits of such a small location. The forty
acres between Dundas and Bloor Streets would be

easily reached by all the lines of railway centring
in Toronto, and it might be many years before the
demands of the trade would render necessary the
acquisition of more territory. The question of ac-
cessibility from the city is not a very important one,
as any site that might be selected would soon be
served with street car communication. Extensive
cattle yards would not render the streets in their
immediate vicinity particularly desirable quarters in
which to live and it is more than possible that a
large proportion of the citizens of Toronto would
not object to the selection of a site for the new
cattle market even more remote than the one already
suggested.

The live stock interests of the Province of On-
tario, as well as the business interests of Toronto,
demand that this cattle market question should be
dealt with promptly and in a proper spirit.

REARING HORSES THAT WILL LAST.

Among those who keep horses for pleasure it is
always a source of sorrow that horses wear out so
quickly. By the time a pair of carriage horses are
well mated and sufficiently accustomed to each
other so that they will drive well together, they are
too apt to begin to show symptoms of wearing out.
They begin to go a little stiffly when they first
leave the stable, or flinch on a hard bit of pave-
ment, cough and wheeze if the weather happens to
be a little damp and, in short, one or both of them
soon begin to hang out those signs which always
mean that the horse showing them "has seen his
best days." When one has become well accus-
tomed and, as it were, acquainted with a really
good driver or saddle horse that suits him in every
respect, it is a painful experience to see him
steadily deteriorating from the time he reaches
ten or twelve years of age. And, apart from the
uncomfortable feeling one experiences on seeing
a favorite horse failing while he should be in his
prime, and just as his owner has become thorough-
ly attached to him, the economic side of the ques-
tion is a serious one. If a horse is to wear out in
from from four to six years of steady employment,
the cost of keeping a horse or a pair of horses be-
comes a very serious matter to a householder of
anything short of the most ample means. But it

the early decay of the carriage or saddle horse be
a serious matter, what shall be said as to the thou-
sands of animals kept solely for the purpose of
earning money? The cart horse, the dray horse,
the express and omnibus horse, the livery horse
and the street-car horse, and the farm horse?
In the case of these it becomes purely a matter of
dollars and cents. A horse that will last eight
years in active service, and be well up to his work
for the whole of that period, is worth double the
price of one that will last only four years in the
same kind of work, plus the value of the time spent
in training or fitting a horse for the work. Mules
are not, as a rule, handsome, and in many cases they
are not pleasant to handle, and yet they bring
good round prices because they will outlast horses
in almost any kind of hard work. This is certainly
not as it should be, and with proper care in breed-
ing and handling, a horse should last nearly, or
quite, as long as a mule. Another factor to be
considered is, that while the mare is often valuable
as a breeder after being more or less incapacitated
for work, the mule of either sex is useful only for
work.

There are several reasons why our horses do not
last as they should. One of these is that proper
care is not taken in the selection of a sire. Stal-
lions are selected for almost everything except
longevity. Among the many massive Clydesdale
and Shire stallions to be seen at our Industrial
and Provincial Exhibitions, how many live long
enough to profit by the success of their first two or
three years in the stud? At the annual exhibitions
held by the Ontario Society of Artists none but
new pictures are exhibited. One would think that
some such rule prevailed among our exhibitors of
big stallions. How many old Clydesdale or Shire
stallions are there in Ontario to-day, taking it for
granted that a stallion begins to be old after he
reaches fourteen? It would be interesting to
know what is the average age of heavy draught
stallions now kept for service in Ontario. Unless
we are very much mistaken, we should find that
our big stallions come of a very short-lived race.
If like begets like, how can we expect the progeny
of such stallions to be long-lived? This is not the
case with our thoroughbreds and light harness
horses. Terror, one of our most popular and suc-

cessful thoroughbred sires, is nineteen years old and as good for the stud as he ever was. Harper is twenty-six years old, Thunder is twenty seven. Judge Curtis was sold to go to Illinois when seventeen or eighteen years old. Imported Reveller, now on Mr. John Carroll's Clandeboye Stock Farm, near St. Catharines, is one of the most popular sires in Canada, and is still getting first-class stock, though he is eighteen years old. Indeed the number of old thoroughbred stallions in Canada is much greater than that of the young ones. In the light harness classes old and young horses are both in the stud, but there is nothing to indicate that they are as a rule a short-lived race. The St. Therese Blackhawk, one of the best trotting sires ever bred in Canada, was still comparatively brisk and vigorous when he was thirty-six years old. Clear Grit, though some 23 or 24 years old, was showing no signs of decay when he met with the accident which put an end to his long and useful career in the stud. Grey Eagle was still useful after he was upward of twenty years old, and scores of the best trotting and racing stallions in the United States have proved of the greatest value in the stud after they were upward of fifteen years old. The lesson to be learned should not be hard to learn. The warm-blooded light harness and thoroughbred horses live longer than do the heavy draught stallions. Why this should be is not difficult to determine. In the draught horse every other consideration is subordinated to early maturity and the accumulation of mountains of flesh. The regular draught horse fancier will tell you that it is hard to get an animal "wide" enough to suit him. He must be a moving mountain by the time he is three years old, and he must at all times have flesh enough to cover up anything like ruggedness of outline. On the other hand the thoroughbred or the light harness horse is neither pampered nor starved in colthood. He is liberally fed, but the object in his case is to make him grow and not to fatten him. He has too much exercise to permit him to become a shaking mass of fat. If he is not active he is of no use, therefore he is reared with the view of making him light of foot. Even if he be destined for the stud he is not allowed to eat the bread of idleness. If he is a thoroughbred he is almost sure to have some sort of a career on the turf. If he fails on the flat he is put to steeplechasing, hurdle-racing, or perhaps ordinary saddle work. If unsuccessful both on the flat and across country he will hardly find his way into the stud, for while blue blood is highly valued by practical horse-breeders, its most enthusiastic admirers do not care for it if it is not accompanied by an ability to perform at least respectably on the flat or else over sticks. The same thing is true in a somewhat less degree in the case of the trotting sire. Though much importance is attached to blood lines, a trotting sire that has distinguished himself on the turf has an immense advantage over an equally well-bred horse whose abilities as a trotter have never been developed and proved. In fact the trotting or racing sire usually retires to the stud after having passed through at least two or three years of tolerably active life in the way of training and racing. Besides all this, as great size and weight are not sought after

in the case of warm-blooded colts, their growth is not forced by rich feed that is wholly unsuitable for animals of their age. In short, while the trotting or racing sire is reared in a natural way, and one that should be conducive to perfect health, soundness and longevity, the heavy draught stallion is too often forced in his early growth to a pernicious extent, and afterward encouraged to live a life of sloth and gluttony, well calculated to shorten his own life and seriously impair the constitutions of his offspring. Early maturity is all very well for beef animals, where the only object is to produce the greatest quantity and highest quality of meat at the least possible cost, but in the case of the horse the case is altogether different. Every stockman likes to see his colts, calves and lambs of good size and well developed, but no thoroughly rational horseman will induce the early development of his colts by injudicious feeding.

If our farmers and horse-breeders would take care to breed only to sires that are sound and healthy, and that come of long-lived parents, we should soon cease to hear about early decay among our horses.

The breeding is not all, however. Not only should the sire and dam be fed rationally, but the colt should be treated in the same way. Generous feeding is perfectly proper for any young thing, and freezing and starving are at all times most objectionable as applied to live stock, but there is a medium which the man who would succeed in handling horses profitably must strike. A horse, to live long and retain his powers, must be liberally fed, properly protected from bad weather, and regularly and briskly exercised.

HOW TO FEED YOUNG TROTTING-STOCK.

Alban Wye, in *New York Sportsman*.

The money which horses shall yield their breeders and owners has the utmost dependence upon that care to which the animals in their early youth are subjected. From the outset of life it is of the first importance that feeding receive constant and diligent attention, and this not alone in regard to its quantity, but its quality as well. For upon these conditions rest the price which the market-place may set apart for the seller's purse, and the physical powers of the horse when demand is made upon him for "all that there is in him."

The British custom of graining thoroughbred colts from earliest infancy is not one which should have observance in this country by breeders of horses destined for the road, or for the trotting course, because trotting-stock is not under necessity of such early maturity and perfect development as is the destiny of the thoroughbred racer, and the former is designed to endure and be available for arduous service long years after the latter has passed away from public view. Yet the trotting colt must not be permitted to live upon short allowance of feed, his stomach requires toning and distension, as—aside from any suggestions of humanity—it is to act an indispensable part in the animal's career, when the future shall have come. On this subject Hiram Woodruff has declared his own belief and practice in a very graphic and powerful manner, and no one has any further right to a hearing than he, for his whole life was one long devotion to the interests of American trotting horses.

Woodruff says: "As to early feeding their method (of breeders of thoroughbred racers) is one which

I advise breeders of trotters not to follow. It is that as soon as the colt will eat bruised oats, which he will at less than two months old, he is to have all he can consume." I say to the reader of this, do no such thing with the colt that is to be a trotter, or rather, do it with great moderation. Never mind oatmeal gruel, never mind bruised oats while he is with the dam. The milk of the mare, she being kept in good heart, and the grass, will afford the colt all the nourishment he needs or ought to have. This is nature's plan. Besides all this, I have other reasons against giving young colts much grain. The physiologists argue that in order to thrive, the horse, young or old, must not only have the stomach supplied with a sufficient quantity of nutritious food, but also with enough matter, not so highly nutritious, to distend it.

A horse or a colt, fed only on the substances which go to make up his substance, would stand, though you gave them to him in the greatest abundance. Why this is they do not seem to know, and I am sure I don't, but it seems to me that it is a reason for not cloying the young animal with all the nutritious food he will eat. If his appetite is satisfied with oats he will not be likely to eat the grass and hay that nature requires. There is another thing on this point which has occurred to me, but I will throw it out only as a suggestion. While the animal is young, a good distension of the stomach is calculated to produce that roundness of rib which we see in so many of our best horses. Now, this capacity of carcass, if it proceeds in part from proper distension of the stomach, and by that I do not mean the paunch, is not going to be obtained by the feeding of food in the concentrated shape.

Bulk is required, and the pulp and essence need not be given in large quantity until the organization is formed, and extraordinary exertion is required of the horse.

This is common sense, and its reasons lie deeply laid—like truth at the bottom of the well—in the revelations of physiological science. The way to reach the colt's substance, while he continues a suckling, is through the system of the dam. She should be kept in the veriest "heart," and her milk maintained at its maximum capacity of supplying the colt. Therefore, the breeder should be circumspect of his brood-mare's condition, and whenever there is even the slightest indication of lessening quantity, or of deterioration of the nutritive quality of her milk, she should have her feed "reinforced" by the means which will restore her powers. She always should have the best of pasturage, and grain never will come amiss for her, while she drains her own strength to supply the demands of the growing and promising colt or filly at her foot.

When the time for weaning the young trotter shall have arrived, then there should be allowed it a reasonable feed of grain. Above all things, it must be let go upon "short commons." Two quarts of prime oats each day can be allowed the homesick youngster, but generally not more than this quantity, for the rich grasses of the pasture still continue the "roast beef" of the diet. However, it is impossible to lay down an absolute rule in regard to this allowance of grain, for colts will differ so radically in their form and constitution. One will be loosely organized, and stand high upon long legs; another will be laid together as correctly as a lady's muff in its little round box, and of these styles of animals, the former will take and dispose of to advantage a quantity of grain which would be injurious to the latter. So, the breeder's judgment must be exercised, for he is engaged in a most important and lucrative business, and the possibilities of fancy are strides of advancement in the development of the American trotting-horse, and the fame of himself as a promoter thereof. Besides, he is doing his duty by the priceless servant of which humanity may boast.

In the *Sportsman* of Saturday last I observed an exceedingly good comment upon the "Care of horses in winter," and it involves a "point" upon which I had felt inclined to insist, in connection with the ideas expressed herein, but I will pursue this theme a little further, and confine it to young horses, not attempting to add anything to the suggestions of your extract from the *Stock Breeder*.

The young horse, having passed the autumn well, in the enjoyment of good, succulent aftermath, with a right allowance of oats, will come to the first wintering like a strong man armed, and will be entitled to "the most distinguished consideration" of the man who is charged with the responsibility of it. There may not be allowed any penurious economy in the matter of how much they shall be fed. The colt must have all he can eat, and oats enough, perhaps advancing somewhat upon the weanling's portion, and these now, as always, should be of the best quality. There should be provided a well constructed paddock for its occupation each day, and every night should give it a warm, snug, comfortable house, where it may be thoroughly protected against the biting or stormy weather. Particular attention should be given to the regularity with which the colt's wants are attended to, for a great deal of future usefulness will have been builded upon the regular, timely formation of the powers and capacities of the organs of digestion, a "much larger deal than careless observers of good horses can conceive." A certain invariable form for every feeding and every watering, and for the formal exercising; horses are in as an extraordinary degree "creatures of habit," and thrive under "a rule of life" as well as men.

Slowly the baby trotter comes forward to his full maturity, which is endowed with powers such as belonged to "the undying horses of the immortal gods," but it is not so very long in reaching the period when it must be broken; then the grain allowance can be increased, and a well-bred yearling will have no difficulty in "putting where they will do the most good," daily rations amounting to four quarts of oats, and all the hay it will eat cleanly.

These are simple ideas, but they are the result of the experience of many men who have led the lists of the Republic's successful breeders and trainers; and they will apply to horses intended for the coach, or for the road as well as to those which are destined to "contest the wager of battle." Every breeder for market wants to get all the money out of his sales that he can, and if he be parsimonious while his stock is young, and leave it to the roughing for a living, he will himself pay for his own shortsightedness in not getting so much money as he would have obtained otherwise. That there is "economy in feeding young horses well is undoubtedly true." Look at the prices which coachers brought at Mr. Eaton's autumnal sale week before last, ranging from \$1,500 to \$3,000 per pair. There isn't a farmer in the United States, if he breeds with proper caution, who cannot get fine returns from his colts, and earn a very handsome bit of money every year, by simply attending "well and truly" to the necessities of his young stock, for he will find himself realizing, frequently, a fair \$500 for the sort of colt which, because of early neglect, he formerly was compelled to sell for a fifth or a fourth of such sum.

This is the week of Thanksgiving Day, and I shall be glad if any words of mine written here may be instrumental in giving some poor colt a reasonable Thanksgiving dinner, but trust it will not be confined to the one day in the year.

An Arab proverb says: "The two greatest enemies of the horse are rest and fat." The average cross-roads stallion contains these two elements in perfection. Hence, "weedy and washy" colts.

GOOD BLOOD TELLS.

Chicago Farmers' Review.

Taking a retrospective view of the events of the past year, as they have influenced the markets for live stock, there are a few things noticeable which we shall speak of.

It will be remembered that the pleuro-pneumonia scare, as it was called, came upon the stock-breeders early in the season, and for months acted almost as an extinguisher on that trade. The direct consequence of this, and the prevailing quarantine against the introduction of bulls into most of the Western States, led to great stagnation in the fine stock trade. The ranchmen, instead of coming east for stock bulls, were almost forced to depend wholly on the stock farms in their immediate vicinity for range bulls. Thus an immense source of revenue to eastern breeders was cut off, and hundreds of bulls which otherwise would have gone west were left for home use. The natural result of this cutting off of the ranch trade was a surplus of fine bulls of the different breeds which the owners at once found difficult to dispose of, the consequence being that auction sales were held all over what may be called the middle west. Prices fell off almost fifty per cent., and farmers who had their wits about them took advantage of the low prices and secured fine stock animals, while those who let the chance go by begin to see, with chagrin, that in all probability such an opportunity will never again be offered them. The quarantine against Texas breeding stock caused an unusual number of animals from the Texas ranches to be forwarded to the beef markets, competing seriously with common grade beef animals from the farm.

The prices for second-class beef animals fell seriously, and at that time we took occasion to advise our readers to purchase bulls and grade up their stock. All through this depression in the cattle trade prime beef remained steady and brought remunerative prices, and those who held high-grade cattle had no difficulty in disposing of them, and experienced no loss from western competition.

There are lessons to be learned from these facts. Not new lessons, but those which we cannot help reiterating, feeling that it is our duty to readers of the *Review* to keep before them what we consider the plainest and best path for the future. We still find that in many parts of the country farmers believe in the fallacy of breeding from half-bred bulls, thinking by this to gain almost the same results as those who use animals of pure blood. Once more we desire to enter our protest against this "false practice," and would draw the attention of all to the subjoined extract from one of our articles published last summer:—

"Starting with a thoroughbred Shorthorn bull, for instance, the farmer breeds him to a scrub cow, and the resultant progeny is one-half Shorthorn and one-half scrub. Again using the thoroughbred to his half bred cow, and the calf is three-fourths Shorthorn and one-fourth scrub. Breeding in this way the next cross would be seven-eighths pure, one-eighth scrub, and the next fifteen-sixteenths pure and one-sixteenth scrub, or in other words, an animal not eligible for record as a Shorthorn, but pure enough in every sense of the word as a breeder for beef. Now, suppose on the other hand that the farmer had used a half-bred bull, the result would be very different.

"The first cross in breeding the half-bred bull to a scrub cow would produce a calf one-fourth Shorthorn and three-fourths scrub; next cross breeding in the same line would give an animal whose blood would be three-eighths pure and five-eighths scrub. Next would be five-twelfths pure and seven-twelfths scrub, and at the end of four generations an animal seven-sixteenths Shorthorn and nine-sixteenths scrub, or, in short, only one-sixteenth better than at starting, whereas in breeding to a thoroughbred

bull an animal was produced but one-sixteenth from being pure bred."

We sincerely hope that every man who reads the above may at once discard his half-bred bull and replace it in his herd by a pure bred one, we care not of what beef breed, for they are all good, and will give him stock admirably adapted for the purpose of producing prime beef, a staple article ever commanding a steady remuneration. If the above be true, and we think no one will deny it, there is a lesson for the breeder of dairy stock also.

The best results in beef production can only be attained by the use of a pure bull, and so it is in the manufacture of milk, butter and cheese. Breed from pure bulls of any established dairy race and the grade progeny will give better results than those usually bred on the farm, but think not to compete successfully with other dairymen, if the bull used is but half-bred.

The times are changing fast. Exclusive grain farming is dying out slowly but surely; western lands are filling up; the large holdings are being split up among the boys; the general public are no longer content with second-class beef, mutton, pork and dairy products, and the farmer who would make the greatest success of his vocation must recognize these facts, and alter his methods of farming, improve the quality of his products, and bear in mind Darwin's theory of the "survival of the fittest."

UNITED BREEDERS.

National Stockman.

It is probable that more stock breeders' meetings have been held in the past two or three months than in any preceding fall season, and it is certain that the opening winter will be marked by an increased frequency of such gatherings. In fact this is an era of association and combination among stockmen, and in this particular it differs very materially from any which has preceded it. Every well-known breed of stock in the country is now presented to the public by organized effort, and by combinations of men who understand each other and the advantages of concertedly pushing their favorites upon popular attention. It has come to be the case that any variation from this plan of action is exceptional, and regarded as evidence of failure to carefully study the drift of the times.

The tendency of thus associating together for the purposes for which breeders' clubs are formed is to benefit all concerned, for obvious reasons. Many points of vantage are gained—such as the creation of warm fellowship, counsel upon mutual needs, the establishing among members of a more thorough understanding of their business, and the dissemination of much practical information among the people—all of which could otherwise be secured with difficulty if at all. The character and purposes of the average association point to the accomplishment of just these things, together with serving other ends productive of good to both breeders themselves and the public with whom they have to deal.

Breeders' associations differ from ordinary business combinations and trades unions in at least one essential particular—and that is, that they do not usually create fixed schedules of prices and attempt to arbitrarily control the markets. They are organized on a broader and more liberal basis, transact little if any business which is not open to public inspection, and come nearer and nearer to the people according as their organizations are solid and their policy vigorous and aggressive. The breeders' association is no "striking" institution, but its tendency is in an exactly opposite direction. We congratulate stockmen and farmers upon the increased number of these societies, and believe that all this means greater progress in the early future in our live stock interests than we have ever before enjoyed.

CATTLE RANCHING IN THE WEST.

The *North British Agriculturist* publishes a letter from an Edinburgh gentleman who has spent two years at the ranching business, and communicates a few of his experiences to a Scottish friend, as follows:

It is not to be supposed that you are going into the country with the intention of buying up cattle to the number of thousands, in which case it would be necessary for you to run an outfit of your own. As I take it, you would go with the intention of buying a bunch of, say, from two to three hundred at the most to commence with, which is a good solid foundation for a man to lay towards the rearing of a goodly pile, and in this case you would not be at any further expense than, perhaps, the price of your mount, and perhaps not even that if you should be lucky enough to strike a job in some outfit with plenty of horses on the range on which you have been located. But even if you had to supply yourself with horse flesh, there is nothing to kick about in that; for by giving your work to a large outfit, receiving wages or not, according to agreement, you would get your cattle run fee—*i.e.*, in going their rounds over the range, either branding or gathering beef, your calves would be branded, and your beefsteers gathered and shipped to market, if you so desired, along with their own. There is no trade that I know of where a man is less out of pocket for running expenses than this one is. You also get your board for nothing all summer, which is a very material consideration. In most trades there is an exemplification of the proverb that big fish always swallow little ones. Not so in the cattle raising business, however. Small men under the existing system have all the "show" in the world to make their way, and make their way, too, at almost no expense to themselves. The grazing costs them nothing; for every man has an equal right to the thousands of acres of land which belongs to no one, and which constitutes the range free as the air to all; and as the running, as I said before, costs next to nothing, hence are derived the handsome profits which the ranchman makes each fall when he pockets a cheque for his beef from Kansas City, St. Louis, or Chicago, and settles down for the winter to sleep if he wishes, or to "bum round," as the spirit moves him, until the month of May of the ensuing year.

Just before the boys go into camp in spring they are actively engaged in rounding-up the saddle horses for work upon the range. These are usually kept during the winter months in huge pastures, usually formed in one or more of the many canyons which intersect the western plains, where there is plenty of shelter; for, in the Southern States and Territories, at least, ranchmen feed none of their horses during winter, with the exception, of course, of the few which they keep up at the ranch to ride around on once in a while. It is really wonderful to notice in what good fix these horses come out in spring, after having had to "rustle" hard for their living all the winter—a fact which proves most satisfactorily the highly nutritive qualities of the natural grasses of the American west. Where many horses are kept it is but natural that some few of them should be missing when they are wanted, and when this is the case, one of the boys, or perhaps two, according to the size of the outfit and the number of horses "out," go horse-hunting—that is, go riding over the prairie looking through every bunch of horses, or of mares and colts (and they are very often to be found amongst the latter) which they strike, and also giving a call at all the contiguous ranches to learn whether any of the boys there have seen or heard anything of the missing animals. Here, I may remark by the way, it is always best, if possible, to have horses which have been raised on the range on which you are located, for a horse raised at a certain place will never stray very far away from it; and if, as will sometimes occur, you

happen to lose him when away at any distance, it does not matter how far, it is ten chances to one that he will pull direct for his own range, and will most likely be peacefully grazing there on your return.

The general business of "rounding-up," or collecting bunches of cattle from the general herd, at particular spots, for the purpose of selection and branding, is described with much spirit. Convenient spots, at some distance apart, of from five to ten miles, are selected for this operation, and the cow punchers, beginning at dawn, draw gradually up to the first of these with the bunches of stock collected by them in their ride. When all have arrived with their bunches of cattle on the agreed-on spot, the whole bunch is rounded up closely, riders holding the cattle together while one or perhaps two boys at a time ride in amongst them and cut out first all cows and unbranded calves, and second, all cattle that are strangers to the range, and have no business there. The former are driven to the nearest corral and the calves branded, while the latter are driven to what is called the "day herd," or herd which accompanies the round-up till it bursts up, and composed, as I said, of cattle belonging to other ranges, and cattle belonging to ranchmen on the range, but whose ranches are at another part of the range. In this last case the cattle are only kept in the day herd until the round-up reaches the owners' ranches, where they are dropped out. This prevents cattle drifting off their proper range to such an extent as would otherwise happen were they allowed to roam together at their own pleasure, and never be turned back when they got towards the confines of their range. By the time the cutting out and branding is accomplished it is time for dinner, which the cooks have all ready for us. After dinner fresh horses are caught up, and another round-up made in the afternoon, while the wagons, etc., again move on to where camp is to be made for the night. When supper is over, the horses are driven into camp once more, to be hobbled for the night and turned loose, while those whose turn it is to stand guard over the cattle in the day herd during the night, each catch a horse, which he saddles, and pickets close to camp, ready for use at a moment's notice. In good weather night guard is pleasant enough, but in bad weather one does feel almost inclined to hate the fellow who comes to wake him up.

When cattle do stampede, all one can do (and it is a most dangerous job) is to get to the lead and endeavor to stop them in their headlong career, but before you can effect this, you have often to run alongside of the leaders for miles before you can head them off, and when, at last, you succeed in doing so there is no alternative left but to round them up close and remain with the bunch until daylight. A man has to take many a leap in the dark in a stampede; for he has often to ride, he knows not whither, over an unknown country, and whatever be its conformation, be it rough and rocky, or smooth and full of prairie dog and badger holes, he has no choice, but to spur on. What causes a stampede no one can tell. A very little thing will do it once the majority of the cattle have gone to sleep. A sneeze from one of the boys on guard, or a rabbit running past the herd, will sometimes start them off. So will a bird alighting in their midst, and even the slight noise made by the stumbling of a horse has been sufficient to send them a-flying. When they do go, they are up and away, in a body, like a flash, as closely crowded together as the men in a Roman phalanx, and are nearly as difficult to turn so long as they remain in a body. The noise made by the clashing of horns, and the thunder of hoofs as they speed along, is perfectly indescribable, and all-sufficient to drive away all presence of mind from any "tenderfoot" who may be on guard for the first time.

When the round-up is over, each man drives his cattle to their proper range, and every one pulls for

his ranch. At the general round-up in fall, however, ranchmen take the opportunity afforded by so many hands to gather their "beef," thus making a "cleaner" hunt than they could possibly make with their own outfits alone; and immediately after the round-up is over, instead of going home, they "hit the road" with the beef steers, to some point of shipment, it may be 50, it may be 100, or even 200 miles away. You would naturally think that driving fat cattle such distances would reduce them very much in flesh, but if they are properly driven such is not the case. Properly speaking, they ought scarcely to be driven at all, but merely headed in the right direction, and grazed along at the rate of not more than ten miles a day; and if you do seem to lose a little time on the way, the time you lose is money in your pocket, for the cattle will not merely not fall off in condition, but may even improve on the change of range. If the owner himself is unable to go on the trail with his beef, he should always send some trusted man along with them. There is nothing to do on the range from the end of November till the following February, and during that time you can do as you please and go where you please. If we are busy as bees in the summer, we have also the privilege of sleeping like bears all the winter. By the month of February, however, the cattle begin to bog down in the water holes and creeks, for by that time many of the old cows have become so weak and thin that if they should get ever so slightly stuck in the mud when they go to the watering places, they have not the strength in them to extricate themselves, and their feeble attempts to do so only serve to plant them firmer in the mud than ever. Many, doubtless, die before aid arrives, but the boys save many by riding around the range and along the creeks, visiting all the places where there is any likelihood of cattle miring, and pulling them out with their horses. This is effected by means of the lariat, which the cowboy invariably carries on his saddle. Throwing the loop over the horns of the animal bogged, we hitch the hand end of the lariat round the horn of our saddles, and clapping the "old steel" to our horses we drag them out. If a cow is not very deeply embedded in the mud, and has not been very long in it, she is usually able to rise and walk off; but I think you will generally find that if she has been in the mud over night, the chances of her ever getting up are very small. When they do get up, if you are not in your saddle, get there at once, for the cow is a most ungrateful animal, and will hook you just as though you had not been acting the good Samaritan.

BUTCHERS AT THE FAT STOCK SHOW.

Farmer's Call.

A noticeable feature of the Fat Stock Show was the presence of butchers from all parts of the country, and it is doubtful if any other men more critically studied the features of the show or profited more by the visit. They came to make a study of the points of those animals which experts had pronounced superior beef animals, and to see which breed furnished those animals which cut the most nicely marbled meat. They went home educated to discriminate more nicely and rigidly when buying. And these men are ultimate buyers of the great bulk of the cattle, swine and sheep put upon the market; hence the education they got at Chicago will have a wide and pronounced influence. In the future they will pay a yet better figure for good animals and a yet lower figure for poor animals. It has been the popular supposition that the Fat Stock Show would, among other things, stimulate the stock growers of the country to rear better animals; it would appear that by educating the ultimate buyers in the way we have noted, it will *compel* the stock raisers to consult their own interests by putting better animals upon the market.

JERSEY CATTLE AT HOME.

Correspondence of the (Chicago) National Live Stock Journal.

The beginning of what is now so important and valuable a race of cattle as the Jerseys, was necessarily confined to very narrow limits. Although there are no printed records of the earliest occupancy of the Island of Jersey, sufficient is known to establish the fact, that the first settlers came from Normandy, a district of country lying across the English Channel, on the northwest coast of France. These people carried with them to the island their cattle and other breeding stock, with which to continue their modes of agricultural pursuits and stock-breeding enterprises.

The island is small, being but twelve miles long, by about five and a half wide, and operations of all kinds were consequently conducted upon a limited scale.

Only a few cattle, as breeding stock, were taken there, but these had been proven by long experience to be of an extraordinary kind for producing rich milk, and for heavy butter-making ability; and with a keen perception of the great importance of preserving and perpetuating this valuable characteristic of the breed, the settlers at once adopted the most stringent laws, with very heavy penalties attached, forbidding the landing, for "breeding" purposes, of any animal known as a "horned beast" upon the shores of the island. This step was taken, of course, in order to preserve in its purity this highly esteemed and well proven heavy butter-making race of cattle.

These early breeders were fully alive to the importance of strict purity of blood, in order to insure certainty of transmission of valuable qualities in the offspring, and feared the dangers of introducing foreign blood, no matter how valuable that blood might be, towards perpetuating other qualities, or even in giving results aimed at by themselves. They realized the fact that they had a good thing in the little cow, and they determined not to jeopardize their chances of permanent success by trying any experiments with "outside" crosses.

Since these early days no alien blood has been used, and no new stock has been added to invigorate or to give strength to constitutional vigor, which, in the natural order of things, one would suppose would become so weakened and debilitated as to entirely defeat the object in view.

But this result does not seem to have followed as a consequence, and is a notable exception in the history of all "in-and-in" breeding operations. The Jersey cow, since the very earliest period of which we have any knowledge of her, has been subjected to the most intimate and intense course of breeding known to the record of mating animals. The narrow confines of territory of her island home, together with the prohibitory measures instituted to preserve the blood pure, made this close breeding a necessity. No evil consequences of note seem to have developed so far as we have any account. The cattle, in their native home, are rugged and healthy, increasing rapidly in numbers; each succeeding generation being an improvement on the preceding one, so far as symmetry of form and beauty of outline is concerned. The carcass has retained about normal proportions, very little lessening in size having occurred.

This, in a great measure, must be accounted for in the peculiarities of soil and climate, the strengthening and health-sustaining properties of the food produced upon this little island giving vigor and stamina to the animal system, sufficient to counteract any injury that otherwise might arise for the want of new blood, that is found so important in this country to bring about and perpetuate these essential elements in live-stock breeding here.

The Jersey farmer realized the superiority of this cattle for the production of rich milk and cream—

milk so rich in some instances as to be equal with a fair article of cream—and from which an unusually large proportion of the finest quality of butter could be made, which soon gave a reputation to Jersey butter in the London and French markets that absorbed all their surplus at high prices. With this celebrity, and the profitable disposition of his dairy products, he seems to have been content, and sought no improvement for the time in the form of the cow, which is described by early writers on the subject to be an "ugly, ill formed animal, with flat sides, wide between the ribs, cat-hammed, narrow and high hips, with a hollow back. She had always possessed the head of a fawn, a soft eye, crumpled horns, ears yellow within, a clean neck and throat, fine bones, a slim tail, and, above all, a well-formed, capacious udder, with large, swelled milk veins. Satisfied with the qualifications, the only question in the selection of a bull among the most careful and judicious breeders was: "Is the breed a good one?"—meaning, so they had the progenitors been renowned for their milking and creaming qualities. A course of breeding after this plan, in a circumscribed spot like Jersey, would very soon establish an hereditary superiority in this needful and important quality, and fix a type of power and usefulness that would almost unerringly descend to all succeeding generations.

Although the Island of Jersey is small, the climate, soil, and surface of the country differs very widely in different sections. The north and west coast is high and precipitous—a bold frontage of rock, rising two hundred or more feet above the sea; no near shelter from a westerly or south-westerly direction existing. Southwestern gales prevail here during the greater portion of the year, retarding vegetation, and oftentimes doing great damage to trees and shrubbery, and, by its heated nature, parching and blanching the pastures, leaving them browned and apparently damaged; hence this elevated coast has usually a short, scant herbage, but rich and nutritious from being so frequently saturated with saline moisture. Thus the cattle on this side are small, fine-limbed, and hardy.

The southward half of Jersey is an inclined plane, gradually descending to the sea-shore, watered by innumerable streams. A part of it is a rich, alluvial soil and meadow land, so sheltered and warmed as to produce fruit and vegetables in abundance early in the season. The cattle of this district are consequently fed on a richer pasture. They are larger than those of the high, exposed localities, but are not supposed to be as hardy.

HALF-BREED SIRE.

At some of the fairs we have attended this fall, says the Michigan *Farmer*, quite a number of yearlings and two-year-old grade Percheron stallions were exhibited. We believe that the use of such animals to breed from can only result in dissatisfaction to those using them, and will inflict injury to this family of horses. Michigan in years past has been cursed with mongrel sires among her domestic animals, and we had hoped that past experience would prevent a recurrence of such a system of breeding. What can be hoped for from a horse whose dam's breeding is either entirely unknown, or of the very opposite type to that of the thoroughbred sire? Is it not making breeding more of a lottery than ever? It is a loss of valuable time, and will only bring disappointment to those who are foolish enough to engage in a system of breeding that actual experience has shown can only end in wretched failures. Never use a half-blood or mongrel animal to breed from, no matter how perfect his form or handsome his appearance. There should be systematic efforts on the part of those who breed horses to put an end to this evil of using mongrel sires.

A GOOD WAY TO RAISE CALVES.

D. G. R., Hillsboro County, N. H.

Take the calf from the dam when not over three days old; better yet, before it ever suckles. Give new milk from its own dam the first few days, gradually changing it to skim milk. Commence with light feed and increase the rations with age up to a generous feed, but carefully attend to temperature of milk when fed. There must be strict regularity as to time of feeding and temperature of milk; two feeds a day and 95° for temperature, and the thermometer test is the only reliable one while the calf is young. Evenness of mess should be attended to closely. It takes but a slight change in temperature or quantity, to make a young calf sick. Get the calf on skimmed milk as soon as possible, but make the change gradually. As the calf gets along to eight or nine weeks, add water to its rations and feed skim milk and water until six months old. If the calf does well up to three weeks, begin to teach it to eat grain. The best way and time to feed a calf grain is, to feed it dry, and immediately after the calf has drunk its ration of milk; do not wait even three minutes. The best grain feed for young calves is rye and oats mixed—2 lbs. of oats to 1 lb. of rye and ground together. If the calf should show signs of too much looseness in its voidings, give at once a tablespoonful of ground cassia, by putting with a spoon on to the roots of the tongue and holding up its head while it swallows. This method of feeding and rearing calves for milkers I have learned by long experience and testing of many methods. Since the practice has been adopted—some ten years—I have not had the slightest difficulty in raising and growing calves. Always feed and care for the calf from birth until maturity, so that it may not lose a day's growth, whether for milkers or for beef. I never experienced any difficulty in feeding skim milk from cows highly fed with corn and cotton-seed meal.

ARIZONA AS A STOCK COUNTRY.

Prescott, Arizona, Hoof and Horn.

Although possessing the necessary elements for raising live stock of all classes, cattle predominates in our territory over all other kinds. This will no doubt be the case for some time to come, but while the cattle are multiplying very fast, there can be no question that the horse, sheep and hog industry is receiving more attention daily and gaining ground with the same, if not more, speed than other branches of commerce. However, the production of live stock of the latter description does not attract the attention which the favorable sources Arizona extends should receive.

For raising blooded horses or hogs no more favorable place could be found in any State or Territory in the Union than the Salt River Valley. Here feed of all kinds can be raised at little expense and the climate is such as to warrant the health of stock. Alfalfa, the grass of which so much has been written lately, grows with almost unprecedented rapidity, and as fodder for hogs its equal cannot be found, these animals subsisting entirely on this, and growing fat.

Arizona, as a shipper of cattle, is yet in her infancy compared with the outlook of the future. The major portion of the cattlemen of this Territory are men who started in business with comparatively nothing, but by economy, industry and enduring great hardships, they are fast reaching the top round of the ladder of success, and as a consequence Arizona may from now on be counted among the beef producers of the world.

At the sale of Shockey & Gibb's Herefords which took place at Riverview Park, Kansas City, Nov. 4th, 19 bulls averaged \$204.50, and seven female averaged \$290.

ROOT CROPS AS CATTLE FOOD.

English Agricultural Gazette.

Turnips contain, according to variety, from 86 to 96 per cent. of water, still they are admirably suited for the food of cattle. In Scotland, yellow turnips have to a great extent taken the place of swedes, and the growers of them find that they are little, if anything, inferior in their feeding qualities. They also keep well, and have bulky tops. White turnips can scarcely be reckoned as an article of food that can be depended on for feeding cattle. Being cooling and slightly aperient, a few may be given on the grass previously to tying up, and, perhaps, for a week or two in the stable, until the cattle get accustomed to the house; but, further than this, it is useless to go on with them, and yellows or swedes must be resorted to.

The nutritive value of turnips varies with the variety, the climate, the soil, and also the manures used in their cultivation. They become less nutritious after being stored for some time than they are when newly taken up, and also lose a proportion of the water which they naturally contain. Turnip-tops contain a considerable amount of nutritive matter, but they are best suited to young cattle. When turnips are allowed to stand in the field until they put forth a second growth, a deterioration in their quality is the result, owing to certain of their elements becoming changed into indigestible woody fibre. Of all varieties of turnip, the swede is the best. It yields a larger proportion of nutritious food than any of them; it is the hardiest, and best withstands the severities of winter weather; and, if properly stored up in dry weather, will retain its nutritive juices long after all other turnips have become withered and valueless.

Next in importance to the turnip for feeding purposes during winter is the mangold; and, where soil and climate are suited to its growth, even more dependence is placed on it, as it has fewer diseases, and yields a heavier crop of greater feeding value. It is useless to attempt its growth if the soil and climate are not suitable; for which reason in Scotland it is seldom grown, and where it is grown yields but a poor return. In England and Ireland, again, it is extensively grown, and is highly valued for its productiveness and excellent feeding qualities. At the time of lifting the crop, in October and November, however, mangolds are not good food, as they are too full of sap at that time, which is of an acrid nature, and acts injuriously on cattle fed largely on them. But in spring, when turnips lose much of their nutritive properties, mangolds are in excellent condition, having from keeping lost much of their watery nature and gained in saccharine richness.

Potatoes are also well adapted to the fattening of cattle if used in combination with other food. When given raw, which is the preferable way to ruminating animals, they are served in the same manner as turnips; but care must be taken to begin with them gradually, as they are apt to scour, and injure the animals at first. A third of potatoes to two-thirds of turnips, will be found the best arrangement, care being taken that they are clean and fresh. So long as potatoes are not fetching more than 50s. a ton, it pays to use them for feeding purposes: and in all outlying districts, where markets and railways are distant, the crop can generally be turned to better account by converting the potatoes into meat than by selling them in their natural state. Being deficient in flesh-forming elements, cake or bean-meal should be used in combination with them.

Potatoes vary in quality according to their variety, and generally contain from 75 to 76 per cent. of water, and from two to three per cent. of flesh-forming ingredients. Although it may be more convenient and preferable to give them to cattle in their raw state, still, various benefits may arise from using them steamed or boiled, and mixed with

bruised corn or meal; in which state they are relished by almost every class of animal, and make food in a high degree nourishing and salubrious, although steamed food of any kind is not generally attended with the same benefit to ruminating as to other animals, but whatever the way in which the potatoes may be used, the quantity allowed must be moderate.

THRIFTON NOTES.

The farmers of Central Illinois have been favored with the best of whether this fall. Many of them have improved it to good advantage, in the gathering of corn and preparing for the coming winter.

Wheat of best quality is now selling at 90 cents, corn at 25 cents, and oats at 23 cents per bushel; at hogs at \$3.00 per 100 pounds.

It is generally admitted that one bushel of corn, as ordinarily fed to hogs, by farmers here, will make 8½ to 10 pounds of pork. At this rate, pork now selling at \$3.00, costs the farmer \$2.50 to \$2.93 in corn, or in other words by feeding to hogs the farmer gets 25½ to 30 cents for his corn. To this may be added the advantage of having the corn crop fed on, rather than shipped off, the farm; and this, by the way, is a matter upon which our farmers are giving more thought than in days gone by.

The general impression is that corn should sell for more than 25 cents, and many farmers who can do so are holding for a rise. Some will not even feed to hogs at the present low price of pork, and in view also of the risks of loss from disease.

N. H. Gentry, of Missouri, writes since his return home from the late American Fat Stock Show, at Chicago, that he has altered 10 Berkshire pigs eligible to record with a view of showing at Chicago in 1886. No more walk-a-ways for the other breeds of hogs at the Fat Stock Show when Mr. Gentry's Berkshires walk into the show ring.

TRANSFERS OF THOROUGHbred STOCK.

American Berkshire Record.

Helen Hamburgh, 14544, and Emperor of Erie, 14545. T. R. Proctor, Utica, N. Y., to Truman G. Avery, Buffalo, N. Y.

Claude Melnotte, 14543, and Lady of Lyons, 14546. T. R. Proctor, to Wallace L. Hubbs, Jonesville, N. Y.

Charmer's Sovereign, 14549. N. H. Gentry, Sedalia, Mo., to W. W. Mock, Martinsville, Mo.

Sovereign Charmer, 14550. N. H. Gentry, to T. M. Owens, Woodstock, Ohio.

Fairest Queen, 14551, Countess Irma, 14558, and Sovereign Duke XVII., 14556. N. H. Gentry to F. P. Spivey, Fairview, W. Va.

Matchless Duke II., 14557, and Beauty Duchess, 14563. N. H. Gentry to Thos. W. Ragsdale, Paris, Mo.

Texas Duke, 14477. C. Hibbard & Son, Bennington, Mich., to F. C. Bordis, Texas, Mich.

Robin Hood Prince I., 14478. C. Hibbard & Son to R. Backus, Williamstown, Mich.

Donna's Sambo VII., 10494. P. F. Coulter, Newark, Ohio, to J. Willis Fulton, Newark, Ohio.

Braw Laddie III., 14495. D. W. Smith, Bates, Ill., to Henry Elliott, Berlin, Ill.

CONTROLLING THE SEX.

Desiring a heifer calf from my Holstein cow Lucky Deal, 5279, I informed myself as to the rules generally recognized as governing the sex. Fortune smiled on me and I was favored with a combination of circumstances, all favorable, to the end desired. Either of the seven rules, to the firm believer, is

sufficient to ensure a heifer calf, but the seven combined in one cow at one time, could not fail to bring the desired sex. The calf that came was a heifer and the correctness of the rules as a whole, have in this particular case, been verified. As for either of them separately and alone, we cannot speak, but we doubt not that separately or collectively, each and all are correct and never fail—when the issue is a heifer. The conditions under which Lucky Deal was bred, were as follows:

- 1st. First part of heat.
- 2nd. Bull younger than cow; bull one year, cow two years old.
- 3rd. Bag full of milk.
- 4th. Dark of the moon.
- 5th. First cover incomplete, second perfect.
- 6th. First heat after calving. Last calf a bull.
- 7th. Head to the south.

Either of the above are said to be a sure sign of heifer calf.

CURING HAMS.

The following is the famous receipt used by Mrs. Henry Clay for curing hams, several hogsheds of which were annually sent to Boston, where, under the name of "Ashland hams," they commanded the highest price, especially among the wealthy whigs of that city. For every ten hams of moderate size she took three and one-half pounds of fine salt, one pound of saltpetre and two pounds of brown sugar, and after mixing them thoroughly together, rubbed the hams therewith on either side. They were then packed in a tight box and placed in a cool out-house for about three weeks, when the hams were taken out and put in a pickling tub or hogshed and covered with brine strong enough to swim an egg. After remaining in the pickle for about three weeks, they were taken out, thoroughly rubbed with fresh salt, and hung up in a well-ventilated house for a few days to dry, after which they were transferred to the smoke house, where they were hung up and smoked with green hickory or walnut wood until they had acquired the color of bright mahogany, when each ham was sewed up in canvas, the coverings white-washed and hung up to dry, after which they were whitewashed again and packed away in hogsheds with hickory ashes until wanted either for home use or sending to Boston.

The Germantown *Telegraph* has also a famous receipt for curing bacon, beef or mutton, which it publishes annually for the benefit of its readers, and it is as follows: To one gallon of water add one and one-half pounds of salt, one-half pound of sugar, one-quarter ounce saltpetre and one-half pound of potash, increasing the rates to any quantity desired, and boil these together until all the impurities have risen to the top and been skimmed off. Pour the same into a tub, and when cold, pour it over the meat, covering the meat completely with the mixture, taking care not to thus put down the meat for at least two days after killing. Some omit boiling the pickle and find it to answer equally as well, although it must be admitted that the boiling purifies the pickle by throwing off any impurities that may be contained in both the salt and sugar. It is said that if this receipt is strictly followed it only requires a trial to convince anyone of its superiority over the common method of putting down, and the meat will be found unsurpassed for sweetness and delicacy of flavor. The potash, unless of the purest kind, or may be omitted.

Down in Texas they have an official designimeter as "Scab Inspector." His jurisdiction extends either one or more counties, in which he visits the different flocks of sheep, and those found afflicted will scab he requires the owners to have dipper-compliance with state law.

CLEAN PORK.

C. F. Clarkson.

Frequently you hear persons enquire why the pork they buy from the butcher does not taste as sweet and good as that used in former years we ate on the farm. Good farmers raise their hogs right. They appreciate good eating. A hog is not naturally a nasty animal. On the contrary, he is very particular when he sleeps and what he eats. It is true, in hot weather if he cannot get pure, cold water to bathe or roll in, he will take the best he can get, even if it be the filthiest mud hole. If you want sweet pork, the hog must have pure water for drink and for wallow. When shut up to fatten he must have a clean plank floor, with a little clean bedding, changed often. Give clean corn, either raw, cooked, or ground, with pure water. In summer time he should have with his grain all the sweet grass he wants. In winter second-growth clover hay. In summer and winter he should have every day as much as he will eat of lime and salt mixed. Never let him stop growing, and slaughter him when in his best flight of growth, and then you will have as sweet pork as you did at your father's table.

ALIMENTARY AND MANURIAL VALUE OF FEEDING STUFFS.

From the (Irish) Farmers' Gazette.

The following valuable table is from an article on the "Valuation of Unexhausted Manures," by Sir J. B. Lawes and Dr. Gilbert, in the current number of the Royal Agricultural Society's journal. It gives the increase in live weight per ton of food consumed by a fattening ox or sheep (the calculations do not apply to lean stock), and the manurial value of the ton of food after it has been consumed :

Description of Food.	Live Weight Increase per Ton of Food.	Manurial Value per ton consumed.
Linseed.....	Lb. 448.0	£ s. d. 2 19 5
Linseed cake.....	373.3	3 18 6
Decorticated cotton cake.....	344.6	5 13 0
Palm-nut cake.....	320.0	1 19 10
Undecorticated cotton cake.....	280.0	3 5 4
Cocoa-nut cake.....	280.0	3 0 7
Rape cake.....	224.0	4 5 4
Peas.....	320.0	2 15 0
Beans.....	320.0	3 3 5
Lentils.....	320.0	3 1 4
Tares (seed).....	320.0	3 2 1
Maize.....	311.1	1 5 1
Wheat.....	311.1	1 8 7
Malt.....	320.0	1 6 8
Barley.....	311.1	1 6 1
Oats.....	298.7	1 9 10
Rice meal.....	298.7	1 7 10
Locust beans.....	248.9	— — —
Malt combs.....	280.0	3 10 9
Fine pollard.....	298.7	2 13 4
Coarse do.....	280.0	2 17 9
Bran.....	248.9	2 18 5
Clover hay.....	160.0	2 1 3
Meadow do.....	149.3	1 8 7
Pea straw.....	140.0	0 18 10
Oat do.....	124.4	0 11 7
Wheat do.....	106.7	0 10 1
Barley do.....	97.4	0 10 1
Bean do.....	101.8	0 17 7
Potatoes.....	37.3	0 6 5
Carrots.....	26.1	0 4 3
Parsnips.....	29.9	0 5 5
Swedes.....	20.5	0 4 7
Mangels.....	23.3	0 5 0
Yellow turnips.....	16.8	0 3 11
White do.....	14.9	0 4 0

In the table published by the same authority nearly 25 years ago, and so often referred to as a standard of manurial values of feeding stuffs when added to stock, ammonia was taken at 8d. per lb., but now it is reckoned at only 6d.; phosphoric acid was taken at about 2½d., but now at 3d. per lb.;

and potash was then valued at 2d. per lb., but now at 2½d. Notwithstanding the somewhat higher value now given to phosphoric acid and potash, and the less amount of nitrogen of the food now reckoned to be lost by the feeding, the reduction in the price of ammonia by one-fourth brings all the estimates of total manure value lower than formerly. Thus, the manure value of a ton of linseed cake consumed, which was previously reckoned at £4 12s. 6d., is now taken at £3 18s. 6d.; that of a ton of maize is reduced from £1 11s. to £1 5s. 1d.; and that of all other foods in varying proportions, depending partly on the alteration (if any) in the adopted average composition of the foods, but mainly on the reduction in the money value assigned to ammonia.

We give the original tables for comparison, and along with them some estimates by the late Dr. Voelcker. The similarity in many cases between the figures given above and those of Dr. Voelcker is very remarkable:—

Description of Food.	Sir J. B. Lawes.		Dr. Voelcker.	
	£	s. d.	£	s. d.
Linseed.....	3	13 0	2	17 9
Linseed cake.....	4	12 6	3	15 8
Decorticated cotton cake.....	6	10 0	5	6 6
Undecorticated cotton cake.....	3	13 6	2	18 0
Rape cake.....	4	18 6	4	8 9
Peas.....	3	2 6	3	2 0
Beans.....	3	14 0	3	2 0
Lentils.....	3	17 0	3	2 0
Tares.....	3	13 0	—	—
Indian corn.....	1	11 0	1	5 0
Wheat.....	1	13 0	1	7 0
Malt.....	1	11 6	1	6 0
Barley.....	1	10 0	1	5 0
Oats.....	1	15 0	—	—
Rice meal.....	—	—	1	0 0
Locust beans.....	1	2 6	0	18 3
Malt combs.....	4	5 6	3	11 0
Pollard.....	2	17 0	2	15 0
Bran.....	2	17 0	2	15 0
Clover hay.....	2	5 0	—	—
Meadow hay.....	1	10 0	—	—
Pea.....	0	18 9	—	—
Oat.....	0	13 6	—	—
Wheat.....	0	12 6	—	—
Barley.....	0	10 9	—	—
Bean straw.....	1	0 6	—	—
Potatoes.....	0	7 0	0	7 0
Carrots.....	0	4 0	0	4 0
Parsnips.....	0	5 6	0	5 6
Swedes.....	0	4 3	0	4 3
Mangels.....	0	5 3	0	5 3
Common turnips.....	0	4 0	0	4 0

ORCHARD GRASS.

I do not believe this valuable grass is sufficiently appreciated by those having light, dry lands liable to wash, such as sloping hillsides, and who wish some accompaniment to clover for mowing.

I have just finished cutting a few acres which had been seeded to clover and this grass, and mowed two seasons before the present. Last year the crop was good, yielding about one and a half tons per acre of excellent hay; but the dry fall season and the late dry spring following, threatened to ruin the crop, until the late rains brought it forward so that I cut about half a crop, mostly orchard grass, the clover having mostly disappeared, and now it promises a good crop of aftermath, provided the season proves favorable.

I am satisfied, that had it been timothy, it would have hardly been worth mowing. Again, timothy leaves no sod, and in dry seasons makes no second crop, and consequently fails to fertilize the land.

If the orchard grass becomes too much matured by late cutting, it can be used to good advantage, cut up and fed with ground feed to horses.

Woodland, D. C.

H. P.

The health commissioner of Chicago is authority for the statement that nine-tenths of the "butter" sold in that city is oleomargarine, or some similar compound.

APPLES, PEARS AND PEACHES ON VINES.

A correspondent of the *Indiana Farmer*, writing from Paris, describes some of the horticultural novelties he has seen as follows:—

Walking down the garden walk (still within this miniature walled fortification) I saw these apple vines. Do not think it is a figure of speech to call them vines, for they were certainly as genuine vines as any that ever bore grapes or hops. The tree is taken when quite young, and all its branches but two are cut off. No other twigs are ever allowed to grow, but these two branches are trained around a wire which is stretched parallel with the ground, about two feet above the ground, and several of these vines had grown 20 or 30 feet long, and were nowhere more than an inch or an inch and a half thick, but they were loaded down with as fine fruit as I ever saw growing. They claim that these vines always bear better fruit than trees do. The apples, pears and peaches grow usually in clusters of three together.

Another freak of the horticulturist here, after training his peach vine on a wire or against the side of a house, is to take a tree and flatten it out like a wall in itself. This, too, of course, is done while the tree is young, and as the branches grow they are entwined amongst each other, so at last it looks like a big palm leaf fan, 15 feet in diameter and one foot thick. This bears as much fruit as a spreading tree and does not occupy one-sixth as much space in a garden.

SELLING APPLES ABROAD.

Connecticut Farmer.

Mr. Gold's communication this week lets a flood of light upon the foreign apple business, turns it inside out, so to speak, and shows that the average farmer is likely to find it a "barren ideality."

No comment can add to the force of the facts. Mr. Gold is a thorough farmer. Whatever he does is done as well as he knows how to do it, and not many men, at the most liberal estimate, know better. He sends us the detailed circular report of Messrs. Houghton & Co. to whom his apples were consigned. It shows that he fared neither better nor worse than most of the other shippers. If all parties to the deal were strictly honest we must conclude that American apple shippers have not yet learned their business.

By these returns just 26 of Mr. Gold's 124 barrels of apples reached Liverpool in first-class condition and sold at the regularly quoted prices as No. 1 fruit. Ten of these were Greenings, eight Pearnains, seven Baldwins and one Hubbardston. Not less than 81 are returned as slack packed, while "open," "shown," "wet," and "slightly wet," characterize the rest. None were in very bad condition as the prices show, but while the 10 barrels of best Greenings sold at 9s. 3d., the 14 slack packed and open brought only 7s. 9., and while the seven barrels of best Baldwins brought 10s., the 19 slack packed and open sold at 8s. 9d. The lowest figure was reached on eight barrels of slack packed Peck's Pleasant, at 7s. 3d. but about 40 sold at 7s. 6d., the Baldwin going highest as before mentioned at 10s.

Secretary Gold has done the farmers an incalculable service in thus promptly placing the facts as they are before them. No other shipper need fear to tell the story of his own failure after reading this one. It is not a pleasant experience to contemplate, but it solves the problem, if not satisfactorily.

In Denver the milk traffic employs over 250 horses to haul the wagons and herd the cows.

FALL PLOUGHING.

This is a subject always bobbing up for consideration, not even *confining* itself to the fall season. After noting the good effect of the fall rains in putting the soil in condition for this work, the *Farmer's Review*, says of fall ploughing:—

"Among the reasons in favor of it are the following: It makes a good start towards getting in the crop of small grains in the spring: when the season is late, as last spring, the work is crowded into a short space of time, the ground is not so thoroughly prepared, nor the crops put in as good condition as if the work had not been so hurried. On fall-ploughed land grain (especially wheat or barley) can be sown often before ploughing could be done, or as soon as the frost is out to the depth of two or three inches. Fall ploughing gives a better seed bed for spring crops of grain, and, in our opinion, of corn also. It is better for the crops if the under soil has about that degree of compactness which it acquires if ploughed in the fall. The roots of plants readily penetrate it for food, and it does not admit the air to dry it out as ground newly ploughed does if the ploughing is followed by dry weather. Crops will suffer less from drought early in the season on fall than on spring ploughing. The surface soil can be easily and rapidly brought to the proper condition of fineness for a seed bed by the implements now in use, among which we regard the Acme pulverizer as among the best. By the use of such implements re-ploughing in spring is unnecessary. Fall ploughing turns under more or less of green growth, grass, weeds, etc., which by their decay in the soil act as a fertilizer, but which lose the greater part of their value if exposed during the winter. It allows of deeper ploughing than it is profitable to do in the spring. The under soil when first turned up is not in such condition that its elements of fertility are immediately available as plant food. But exposed during the winter to the action of nature's laboratory, the sun, rain, air and frost they become changed and ready to sustain vegetable growth. We believe in deep tillage, but the soil brought up from below needs time before it will do its best in sustaining vegetable growth. Another reason in favor of fall ploughing is that the teams are in better condition for heavy work than in the spring. Their muscles are hardened by a season's work and they will easily do now what would severely tax them in the warm days of spring when their muscles had become flabby from disuse during the winter. And lastly turns up the soil for the action of frost to render it loose and friable. In freezing water expands and as in a moist soil water is held between all particles of it the freezing separates them, throws them farther apart, and in the spring the soil is loose and friable. People familiar with the portions of the south where hard freezing is never experienced, have noticed the uniform tenacity and clamminess of the soil, so different from the conditions at the north, where the soil freezes deeply. This action of the frost is especially valuable on all heavy, tenacious soils, which it is better to plough late in the season and set the furrows as nearly on edge as possible, instead of laying them over smooth. When so ploughed the frost will break down the whole mass of the soil, leaving it loose and friable, whereas if ploughed in the spring it is often difficult to reduce it to such degree of fineness as to make a suitable seed bed."

TO MAKE THE MANE AND TAIL GROW

Mr. Findley, veterinary editor of the *New York Sportsman*, gives the following treatment to make a horse's mane and tail grow, and to prevent their falling out: "Rubbing the mane and tail usually results from an unhealthy condition of the skin, which, in most cases, is produced by neglect of grooming, or by bad food, or by any sudden change

of diet from bad to good. Occasionally, however, it appears in stables where grooming and food are unquestionably good. Damaged oats or hay are very ready causes for this annoying affection. In every case, therefore, the food should be carefully examined. Young horses, on coming into stables, sometimes suffer from irritation of the skin, probably from change of diet. Horses recovering from fever frequently lose a large portion of the hair from the mane and tail. In the latter case it seems to arise from an impoverished state of blood. In regard to treatment, if any positive cause, such as damaged food, or neglected grooming, can be ascertained to have existed, measures, of course, must be taken to rectify it. Without such amendment local treatment will not be of much avail. The local treatment consists in dressing the skin with equal parts of mercurial ointment and soft soap, made into a lather with hot water, and applied by means of a stiff hair brush. The new hair will grow rapidly after this application. Besides the above local remedies, it will be necessary to act on the system generally by a change of diet; green food, which by means of its laxative qualities lessens the irritability of the skin, should be given. A bran mash with five grains of arsenic daily, in addition to the usual food, will exert a beneficial influence on the skin."

BEST TIME TO START POULTRY HOUSE.

Spirit of the Farm.

There are two periods to begin the business—the fall and spring. We prefer the former. Of course many persons would prefer the spring, to save the expense and risk of keeping them through the winter. Ladies may especially be included in this class, as they are anxious to get at the work of raising young chickens at once, and no delay can be endured. But there are several reasons—good ones—for the fall, one of which is, the chickens will become accustomed to the place, and will lay earlier, and begin the business of increasing their number. When procured in the spring, they are delayed greatly in sitting. Fowls are like cows in this respect, they have to get acclimated or accustomed to a new home before they are willing to trust it with their young. The hens will, if fed properly, lay eggs enough during winter to pay for the trouble they may be. The winter months enable the owner to find out the value of the different fowls, dispose of the unpromising, and select others in their place. The fowls are cheaper in the fall, so there will not be so much outlay of capital. All other arrangements, such as building the house, providing nests and other provisions which may be necessary, come within this leisure time. If delayed until spring, all is hurry and confusion, the house is to be prepared, nests to be made, and many other details, all of which consume time; the hens are too late in hatching, hot weather comes on with its dangers and diseases, the owner gets discouraged, and fails to give it the attention it requires, and finally, a failure almost certainly marks the attempt. All this is avoided by starting in good time, and we advise those who wish to begin the business not to delay longer.

HENS AND EGGS.

The breed of hens is not of so much consequence to obtain a profit from them on eggs, says F. D. Curllis in the *New England Farmer*, as the conditions under which they are kept. This I have discovered. Last year a few black-spangled Hamburg fowls were kept in a small hennery with a yard attached, and they laid a wonderful number of eggs. In fact, they laid all summer. This season hens of the same breed were put in the wagon-house chamber, with windows fronting to the south. They were given everything which it

seemed possible that they could require. They had corn, wheat, buckwheat, apples, carrots, lime, coal ashes, sand and dirt in a box. They appeared healthy and active, and had all the signs of laying, but the eggs were not produced. For two months they did not lay at all. A lot of Plymouth Rock fowls have been kept in the same hennery this spring that the Hamburgs were in last spring, and they have laid almost every day. They had the same food, but no bother was had about sand and dirt. Now the Plymouth Rocks have been turned with the other fowls in the barn-yard, and the Hamburgs given their place. Some light Brahmas were kept in a large building by themselves, with a small yard attached. They laid a very few eggs, and, after being turned out with the range of the barn yard, they began to lay every day.

It seems from these experiences, that fowls will not do well shut on a floor; they want the earth. The ground in the hennery yard is spaded over quite often, so as to make fresh earth. I never could raise little chickens on a floor; they would do well for a time, but at last droop and die. If I did not know that there is no better breed to lay than the Hamburgs, I might attribute the failure to the breed. The Plymouth Rocks are the most salable market fowl, as they have yellow legs, and they also weigh heavy. When eggs only are the object, the Hamburgs are superior, as they lay a large egg, and it does not take much to keep them. I am a great admirer of nice poultry, and have had as many as twelve different kinds in the barn-yard at one time. Some of the cross-bred ones were exceedingly handsome, and proved to be choice fowls.

BROWN LEGHORNS.

A correspondent of the *London Live Stock Journal* says:—

"It will doubtless be interesting to those of your readers who keep poultry for other than ornamental purposes, to know the result I have had with a pen of nine brown Leghorn hens (and one cock) in the production of eggs. Of these nine hens four were pullets at the time I started the record, and were laying, whilst the other birds were moulting, and, therefore, not laying.

"My record starts from 1st November, 1884, and terminates 30th September, 1885, on which date all the birds were moulting.

"Record:—1884, November, 17 eggs; December, 37; 1885, January, 82; February, 140; March, 124; April, 185; May, 168; June, 148; July, 128; August, 138; September, 48; tot l, 1,215 eggs; or the enormous average of 135 eggs per hen. These, at 1d. each egg all the year round, make £5 1s. 3d., or 11s. 3d. per hen; but, taking the eggs at the market price of the day makes the total result £7 9s. 7½d. The pen has cost me for food £3 5s. over the period of time.

"Now, for the reason. I ascribe for such good results—

- "(1) Hardy birds.
- "(2) Cleaning of roosting-house every morning, and nests every week, also white-washing house throughout twice in the period.
- "(3) A field to run in.
- "(4) Hot meal and scraps early in the morning.
- "(5) Ordinary mixed fowl corn, at night, before roosting.

"I have kept many kinds of poultry, but never with such results as with Leghorns. I trust that my success may be the means of inducing others to keep this breed, and thus encourage it; encouragement it does want, seeing how it is neglected, and that only a few shows give it a separate class. Such prolific birds deserve it.

"For table purposes I find them excellent; though not so large as some breeds they are quite as tasty, etc., and superior in size to the ordinary chicken bought in the market, or in shops."

Veterinary Department.

ANSWERS TO CORRESPONDENTS

[All communications desired to be answered through this column should be addressed to the "Veterinary Editor, CANADIAN BREEDER, corner of Front and Church Streets, Toronto."]

J. M.—One of my horses got sweeneyed, and a friend of mine gave me a blister to rub on the shoulder. It has taken all the hair off. What am I to do to make the hair grow again? **ANS.**—The blister used was too strong; one less severe would have answered just as well. If the roots of the hair have not been destroyed, the best thing to apply now is something to stimulate the growth of hair, such as gunpowder and lard equal parts, well mixed, or a little mild mercurial ointment rubbed on about three times a week.

T. J. T.—The mare has either bruised or sprained the knee, but as there are no marks to show that it was caused by a bruise, am inclined to think it is a sprain. **ANS.**—Keep her quiet, and bathe the parts twice a day with hot water; apply some mild stimulating liniment, but not a blister. Give bran mash and carrots occasionally.

T. H.—I have a well bred heifer, has got a large wart on her chest, just behind the elbow. What is the best way to take it off? **ANS.**—Tie the wart tightly around the base as close as possible to the skin with a piece of waxed silk thread, and the wart will drop off in a few days. After it has fallen off touch the part with a little caustic.

M. F. J.—I have a Jersey heifer two years old this month, and due to calve early in February. For a month or more she has evinced a particularly strong desire to be scratched about the root of the tail. Her health and appetite are good. What treatment would you recommend? **ANS.**—The irritation at the root of the tail may be caused by the congested state of the genital organs, which in the latter stages of gestation are more or less congested; or it might be caused by small worms in the rectum. For the latter, give two-drachm doses of sulphate of iron in her feed every day. The iron has a tendency to kill the worms. If it is the former, after she has calved the irritation will stop.

H. W.—I have a Newfoundland puppy, four months old, that has yellowish brown incrustations on his teeth. The old teeth, which he is shedding, appear to be considerably decayed, while though apparently sound, appear to me to be considerably discolored. What is the matter with him, and what am I to do for him? **ANS.**—The brown deposit on the teeth is caused by a derangement of the digestive organs. It can be removed by brushing the teeth a few times with a stiff brush and any of the ordinary tooth washes or tincture of myrrh. Give the following internally:—1 drachm of subnitrate of bismuth, 1 drachm pulv. charcoal, half-drachm bicarb soda; divide into twelve powders, and give one every day.

F. G.—I have a Cocker spaniel puppy, six months old, that is continually scratching himself, and has broken out in sores on his head and legs; the hair is falling out in some places. What is the matter with him, and what can I do for him? **ANS.**—Your dog has got eczema, probably caused by worms. Give a scruple of pulv. arca nut and two grains of santonine, after he has fasted twelve hours. In an hour after you have given the nut, give him a dessert spoonful of castor oil. Give him 5 drops of Fowler's solution of arsenic every day, and apply this wash—Boric acid, one drachm; water, one pint. Keep his kennel clean and let him have plenty of exercise.

BLUE GRASS.

Waldo F. Brown thus sums up the merits of blue glass; First—It improves with age and never needs reseeding; a pasture fifty years old is in perfection. Second—It will do to pasture a full month earlier than clover, and about as much later in the fall, thus greatly lengthening the grazing season. In favorable seasons I have pastured eight consecutive months on it. Third—It makes the best of winter pastures, and where allowed to grow up for this purpose, the cattle will thrive on it whenever it is not covered with snow. Fourth—It is not injured by tramping, as are other grasses, as it forms a very dense sward. Fifth—It is fattening and not washy in its earliest stages of growth, and a bullock will fatten on it faster than on corn. Sixth—It grows on rolling lands and thin soils, and is not injured by shade, and so produces profitable crops in timber plantations, and on steep hillsides sloping to the south, where any other grasses would be killed out by the freezing and thawing of winter. Seventh—Drought never kills it, no matter how thin the soil or how utterly burned by the drought of summer; it starts into vigorous growth again with the first rain, and soon clothes the fields with verdure. All other grasses and farm crops fail at times, but blue grass never. In all localities where it flourishes it should find a place on every farm; and on broken lands, if three-fourths of the farm were seeded down to it, it would be found profitable.—*Boston Globe.*

Live Stock & Kindred Markets.

OFFICE OF THE CANADIAN BREEDER AND AGRICULTURAL REVIEW. TORONTO, Dec. 9th, 1885.

There has been some further improvement in the condition of the British cattle trade since last cables, when the markets were quoted steady and unchanged. On Monday, however, cables have a more encouraging tone and quote higher values. The principal cause of the advance, which amounts to half a cent on prime beasts, has been light receipts from all quarters, together with a better enquiry, which has enabled sellers to secure more money, making the advance from the lowest point of the depression three cents per pound. Receipts of Canadians, as might be expected, have been light, while the supplies from other sources have undergone a material diminution. The reduced supplies, along with an improvement in the meat market, has given the trade a better and more healthy tone, while buyers have exhibited more anxiety to operate. At Liverpool, on Monday, there were light offerings and a steady demand at the advance. Prime Canadian steers made 13c per lb., the highest price since the middle of September. The improvement on the low grades is not so decided as on the upper. Dressed beef in Liverpool is cabled higher at 4 3/4d. Another Liverpool cable quotes refrigerated beef at 6d. for hindquarters, and 4d. for forequarters. A London cable quotes refrigerated beef higher at 3s. 10d. for hindquarters, and 2s. 10d. for forequarters, per 8lbs, by the carcass.

Quotations at Liverpool on Monday, being calculated at \$4.80 in the £, were:

Cattle—	\$ c.	\$ c.	
Prime Canadian steers.....	0 13	to 0 00	per lb.
Fair to choice grades.....	0 12 1/2	to 0 00	"
Poor to medium.....	0 11 1/2	to 0 00	"
Inferior and bulls.....	0 08 1/2	to 0 10	"

TORONTO.

Receipts of live stock this week are not so large as last; in fact they are, so far, the smallest of any corresponding period for several months past. Still there was more than enough yesterday of all kinds of stock to supply the local demand, which this week is not as good as usual. Butchers' are clearing up their shops and getting rid of all old stock to make room for the Christmas supply. Butchers' cattle ruled easier; sheep and hogs steady and lambs not so weak.

CATTLE.—Shipping cattle continue nominal; if any were offered they would find buyers but they are not anxious to have any at the moment. The next boat does not leave Portland for England until the latter part of December and any cattle purchased now would have to be held over until that date; there will, however, be a good enquiry here between the 18th and 25th of this month unless a change occurs in the British markets; cattle for export must be choice to extra steers and heifers and must weigh 1,300 to 1,500 lbs.; values are nominal at 4 to 4 1/4c. per lb. for choice and 4 1/2c. per lb. for extra. The demand for butchers' cattle yesterday was not good and although offerings were not large the market ruled easier; best loads sold at equal to 3 1/2c. per lb.; and picked lots of choice at 3 3/4c. per lb.; the best price realized was for 11 head choice, averaging 1,100 lbs., which changed hands at \$42 each; most of the cattle were secondary qualities; all were not sold. Feeders were almost nominal; no loads were bought but a few head of good cattle were picked out to replace some inferior ones now in the stables here; milch bulls and springers quiet and unchanged.

SHEEP.—In good demand for export but only a few were offered yesterday; prices are steady; and for choice 3 1/2c. per lb. could be obtained; one bunch averaging 146 lbs. each sold at 3 1/4c. per lb.

LAMBS.—On Friday last offerings were heavy and values declined 20 to 40c. cents per head; yesterday, with smaller receipts, the market was steady at the decline and a fair clearance was effected; choice averaging about 90 lbs. sold at \$3.60 to \$3.80 each; with picked lots at higher figures; the principal sale was a bunch of about 225 head averaging 80 lbs. at \$3.30 each.

CALVES.—Quiet and unchanged; choice sell well but small are slow.

HOGS.—In fair supply and good demand; about 300 offered yesterday; majority were mixed and sold at 4c. per lb.; several bunches of good light fat changed hands at 4 1/4c. per lb.; heavy are steady at 3 1/2 to 3 3/4c. per lb. and stores are in good demand at 4c. per lb.

Quotations are:

Cattle, export, 1,200 lbs. and upwards,	
heifers and steers, choice	4 to 4 1/2 per lb.
“ Mixed.....	3 1/2 to 4 “
“ Butchers' choice	3 1/2 to 3 3/4 “
“ “ good.....	3 to 3 1/4 “
“ “ inferior to common ..	2 1/2 to 3 “
“ Milch cows, per head.....	\$25 to \$50
“ Stockers, heavy	2 1/4 to 3 1/2 per lb.
“ “ light.....	2 to 2 1/2 “
“ Bulls.....	2 to 3 “
“ Springers, per head.....	\$25 to \$45
Sheep, export, choice	3 1/4 to 3 1/2 per lb.
“ inferior and rams	2 1/4 to 3 “
“ Butchers' per head	\$2.50 to \$3.25
“ Lambs, choice, per head.....	\$3.25 to \$3.80
“ “ inferior to common per head.....	\$2.50 to \$3.00
Hogs, heavy fat, weighed off the car ..	3 1/2 to 3 3/4 per lb.
“ Light fat, “ “ “ ..	4 to 4 1/4 “
“ Store “ “ “ ..	4 to 0 “
Calves, per head, choice.....	\$5.00 to \$8.00
“ Common.....	\$2.00 upwards.

The receipts of live stock at the Western market here for the week ending last Saturday, with comparisons, were as follows:

	Cattle.	Sheep and Lambs.	Hogs
Week ending Dec. 5.....	1,153	1,789	529
Week ending Nov. 28.....	1,387	1,355	717
Cor. week 1884.....	794	665	743
Cor. week 1883.....	690	747	1,022
Total to date.....	54,711	61,209	17,164
To same date 1884.....	40,038	58,567	13,401
To same date 1883.....	33,220	47,898	9,193

MONTREAL.

The market for export cattle has been quiet, with light offerings and no business, which gives a nominal character to values. A few sellers on the market this morning asked 4c. per lb. live weight. There was a fair demand for butchers' cattle at firm prices on account of the light supply and good quality of the offerings. Some choice beeves sold at 4c. per lb. live weight. Other sales were at 2 1/2c. to 3 1/2c., as to quality. Sheep were very quiet at about

4c. Receipts of hogs were light and there was a good demand at \$4.50 to \$4.60 per 100 lbs. Calves were scarce with a few sales at \$4 to \$8 each, as to quality.

EAST BUFFALO.

Dec. 7.—Cattle.—The arrivals amounted to about 135 loads, but there are fully 50 loads more to come, as the trains are late in consequence of being blocked by snow; market opened quiet, but dull and slow for common grades, while for fair to good shipping grades values generally quoted at about 10c. to 15c. advance from last Monday's rates, with extra export and fancy Christmas steers a shade better; the quality of the supply was about the same as that of last week's; best steers, averaging 1,450 to 1,600 lbs., sold at \$5.50 to \$5.75; good to choice, 1,350 to 1,425 lbs., \$5.20 to \$5.40; medium to good, 1,200 to 1,300 lbs., \$4.85 to \$5.15; light to good butchers', \$3.40 to \$4.25; mixed butchers', \$3 to \$3.75, as to quality; fair to good cows and heifers, \$2.85 to \$3.35; stockers were in only light supply and a limited demand, best offerings of yearlings only bringing \$2.25 to \$2.50; with good 800 to 900 lbs. stockers at \$2.75 to \$3.15; fat bulls, \$2.50 to \$3; extra, \$3.25; stock bulls, \$2 to \$2.25; milch cows were about steady at last week's prices; good veals were in fair demand at \$5 to \$5.60; coarse, heavy-fed calves, \$2.75 to \$4, as to quality; for Canada stockers values ranged \$2.75 to \$3.25, the latter being for prime, but the supply in this class was very light. Sheep and lambs.—The arrivals of sale sheep at the opening was about 90 cars, with a number arriving on the late trains; the market ruled dull and slow, and but little was done up to a late hour, with the exception of a few loads which were taken by outside buyers; reports from New York were bad; a few good feeders sold at \$3.75 to \$4, and one load of choice, all wethers, averaging 115 lbs., sold at \$4.35; ordinary fair to good shippers' sheep selling at \$3 to \$3.50 up to \$3.75 for good 95 to 100 lbs.; common to fair sheep, \$2.50 to \$2.85; lambs were in only moderate supply and about steady; Western, \$4.25 to \$5; good common to fair, \$3.25 to \$3.75, these latter kind being very hard to sell; Canada, \$5 to \$5.50, as to quality, although few extra choice brought \$5.60; three loads, averaging 80 to 85 lbs., sold at \$5.25 to \$5.50.

PRODUCE.

As in the preceding week, barley has been stopped and nothing else has yet taken its place. Besides this, dealers generally seem inclined for a little rest; having got through with barley they seem inclined to count their gains before entering on a new field. Besides which inclination, the feeling outside is calculated to encourage them in this humor; uncertainty has still prevailed, but markets seem to have been turning towards firmness. Stocks in store stood on Monday morning as follows: Flour, 500 barrels; fall wheat, 115,478 bu.; spring wheat, 66,739 bu.; mixed wheat, 2,492 bu.; oats, nil; barley, 100,165 bu.; peas, 13,175; rye, nil. Wheat in transit for England shows a decrease on the week, standing on the 3rd inst. at 1,600,000 quarters, against 1,775,000 on the 26th ult. In the States the visible supply of wheat stood at 56,995,000 bushels on the 5th inst., against 55,679,000 in the preceding week.

PRICES AT LIVERPOOL ON DATES INDICATED.

Table with columns for Dec. 1, Dec. 8, Dec. 15, Dec. 22, Dec. 29 and rows for Flour, R. Wheat, R. Winter, No. 1 Cal., No. 2 Cal., Corn, Barley, Oats, Peas, Pork, Lard, Bacon, Tallow, Cheese.

FLOUR.—The previous inactivity has continued prevalent all week. Superior extra has been offered at \$3.50 with no buyers; extra has sold at \$3.65, but at close was held at \$3.70 without any demand heard.

BRAN.—Has been wanted and seemed worth \$10.75 to \$11, but no sales reported.

OATMEAL.—No movement in car lots reported, but they could have been obtained at \$3.50 to \$3.85; small lots quiet at \$4 to \$4.25.

WHEAT.—There has been no disposition to buy displayed either by millers or shippers, the former probably getting all they wanted off the street. Values, however, seem to have been fairly steady with none inclined to push sales. Buyers could have been found at \$4 to \$5c. for No. 2 fall, or \$6 to \$7c. for No. 2 spring, but sellers wanted about two cents more. On street fall has sold at \$3 to \$4c., and spring at 75 to 84c. with 72 to 74c. for goose.

OATS.—Seem to have been readily taken, but somewhat unsettled in price; sales are stated to have been made in the latter part of last week at 34c., but we should suppose this to have been paid for choice only, as a good many more sold then, and on Monday at 33 to 33½c., which was about the closing value. Street prices, 35c. to 36c.

BARLEY.—Has become quiet in consequence of the close of navigation and advanced railway rates. Higher grades scarce and firm. No. 1 has been worth 90c.; No. 2 lying outside, but guaranteed inspection, sold at equal to 79c. here and some more at 81c.; No. 3 choice has sold about 66c., and No. 3, after selling at 60c., closed offered at 58c. Street prices have ranged from 60 to 92c.

PEAS.—Unchanged; lots lying outside have continued to be worth 60 to 61c., or at least equal to those figures here; and some have probably been selling. On street 62c. has been paid.

RYE.—Nominally unchanged at about 60c.

HAY.—Pressed quiet, but seemed steady at \$12.50 to \$13.50 for choice. Market receipts liberal but sold fairly well at \$10 to \$13 for clover and \$14 to \$16 for timothy.

STRAW.—Again scarce and seems unsettled at \$8.50 for loose and \$11 to \$13 for sheaf with more wanted.

POTATOES.—Cars have sold rather better at 47 to 50c. and 52c. on track; street receipts small at 60 to 65c.

APPLES.—Cars quiet and street receipts small, with prices steady at \$1.25 for good to \$1.75 to \$2 for choice.

POULTRY.—In good demand and firm with receipts decreased. Turkeys worth 9 to 10c. and geese 6 to 7c. per lb., with ducks 50 to 60c. and fowl 30 to 40c. per pair in box lots.

TORONTO MARKET.

Table listing various commodities like Flour, Oatmeal, Cornmeal, Bran, Fall wheat, Spring wheat, Barley, Oats, Peas, Rye, Corn, Timothy seed, Clover, Flax, with prices in dollars and cents.

PROVISIONS.

BUTTER.—Still very dull; no movement in round lots beyond a few sales to bakers at 7 to 10c. for poor to fair; these qualities, however, have gone on accumulating and dealers agree in striving to keep it out. Really choice still in good demand and firm at 15 to 16c. with more of it wanted. Rolls seem rather easy, the best going at 14 to 15c. On street, supplies have decreased and prices have advanced to 22 to 23c. for pound rolls, with tubs and crocks 14 to 16c.

EGGS.—Fresh, or the quality called fresh, has been scarce in round lots and these steady at 20c.; pickled abundant and unchanged, at 16c. Really fresh on street worth 25c.

CHEESE.—Fine still selling at 9 to 9½c. with a quiet but steady demand, and inferior going slowly at 6½ to 7c.

PORK.—Has sold steadily as before at \$13.

BACON.—Offerings small and held steadily; long clear going usually at 7c. and Cumberland seems nominal. Rolls taken at 8½ to 9c. and bellies at 11 to 11½c., boneless sometimes bringing 12c., holders being firm for all sorts in consequence of hogs holding up.

HAMS.—Steady and in good demand at 11½ to 11¾c. but holders sometimes stand out for 12c. which is not always conceded so readily.

LARD.—Readily taken at 9 to 9½c. for new pails; tinnets scarcely offered but seem worth about 8½c.

HOGS.—Scarcely any offered this week, which fact has strengthened prices; a few rail hogs sold at \$5.12 from which figure to \$5.25 seemed obtainable at close. Street receipts small and prices up to \$5.50 to \$6 at close.

DRIED APPLES.—Much as before at 4 to 4½c. for trade lots and dealers selling bundled at 4½c.

WHITE BEANS.—Good new trade lots wanted at \$1.10 to \$1.15 but held to 15c. higher and no sales as yet.

HOPS.—A few single lots selling at 9 to 10c. is the whole of the market.

SALT.—Quiet and unchanged, with Liverpool coarse held in small lots at 75c.

TORONTO MARKETS.

Table listing Butter, choice dairy, good shipping lots, inferior, etc. with prices.

Table listing various commodities like Cheese, Pork, Bacon, Hams, Lard, Eggs, Dressed hogs, Hops, Dried apples, White beans, Liverpool coarse salt, Goderich, with prices.

THE HORSE MARKET.

TORONTO.

There is no demand this week for anything but low-priced workers, and only a local demand at that. We are not likely to see a revival until after the holidays. Mr. W. D. Grand sold 20 by auction on Tuesday, mostly a cheap grade of workers. Prices ranged from \$50 to \$140 each.

CHICAGO.

There has been a tolerable movement of horses through the Union Stock Yards during the past week; the trading has been light enough, as the market is now fully under the winter season feeling of dulness that usually prevails at this season of the year.

BOSTON.

The supply was fully sufficient for the requirements. There were eastern, northern, and western horses upon the market, with a good range in quality and price. Sixteen head were sold by M. O. Railey, of Indiana, composed of common horses, at \$150 per head; two pairs of matched heavy team horses averaging 1,400 lbs., at \$350 to \$400; 20 head by O. F. Kern, of Indiana, mostly draught horses, weighing from 1,100 to 1,300 lbs. for single or double drive. The range in price was \$125 to \$225 per head. A fair auction trade last Saturday, at prices ranging from \$100 to \$210 per head, according to quality.

MONTREAL.

The horse market has been quiet during the past week on account of the want of snow, and buyers are holding off until there is good sleighing. The following sales were made at Mr. James McGuire's stables on College Street: One grey horse, 6 years, at \$125; one pony, 6 years, at \$75; one brown horse, 6 years, at \$125; and one ditto, 7 years, at \$60.

HIDES, SKINS AND WOOL.

HIDES.—Green have been firm but no advance reported; all offered have been readily taken as would some more also; cured rather scarce and decidedly steady, with sales at 9½c. for car lots and 10c. for steers.

CALFSKINS.—Nothing doing of any consequence and prices as before.

SHEEPSKINS.—Receipts seem to have been on the increase but have been none too many, as pulled wool has been wanted; prices unchanged at last week's advance and closing at 95c. for city green and 70 to 85c. for country lots.

WOOL.—Still scarce, firm and wanted. Fleece has changed hands at 21c. and equal to 21½c. and more would have been readily taken at the same figures, or mixed lots at 18 to 19c. Super also has been moved to a small extent at 22 to 23c. and extra has gone off to the factories at 27c. All offered of any sort seems wanted.

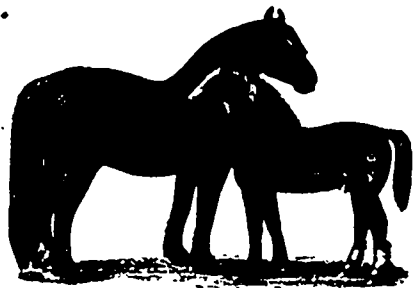
TALLOW.—Dull and unchanged at 3c. for rough and 6c. for rendered, with the latter offered freely in trade lots at 6½c. but not taken.

Hides and Skins—

Table listing various types of hides and skins like No. 1 steers, Cows, Calfskins, Sheepskins, Lambskins, Felts, Tallow, with prices.

Wool—

Table listing types of wool like Fleece, comb'd ord., Southdown, Pulled combing, super, Extra, with prices.



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BREEDERS AND DEALERS IN
Clydesdale Horses,
STALLIONS & MARES,

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All First Prize Winners.

Have always on hand, Stallions of the now most fashionable breeds for sale. Correspondence solicited. Address,

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THE CELEBRATED STALLION,
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Or to "CANADIAN BREEDER" Office, Toronto, Ont.

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Enquire of
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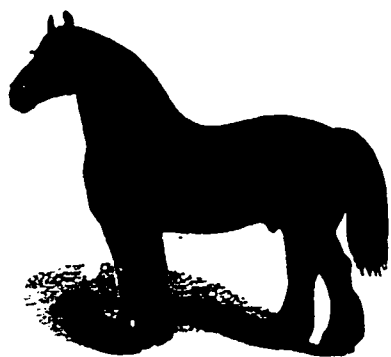
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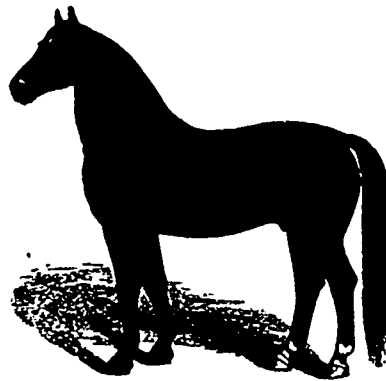
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1 year old	16 to 18
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Stud book certificate with each animal.

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WANTED THE MOST, 4 years old, for 1500 bus. maize.
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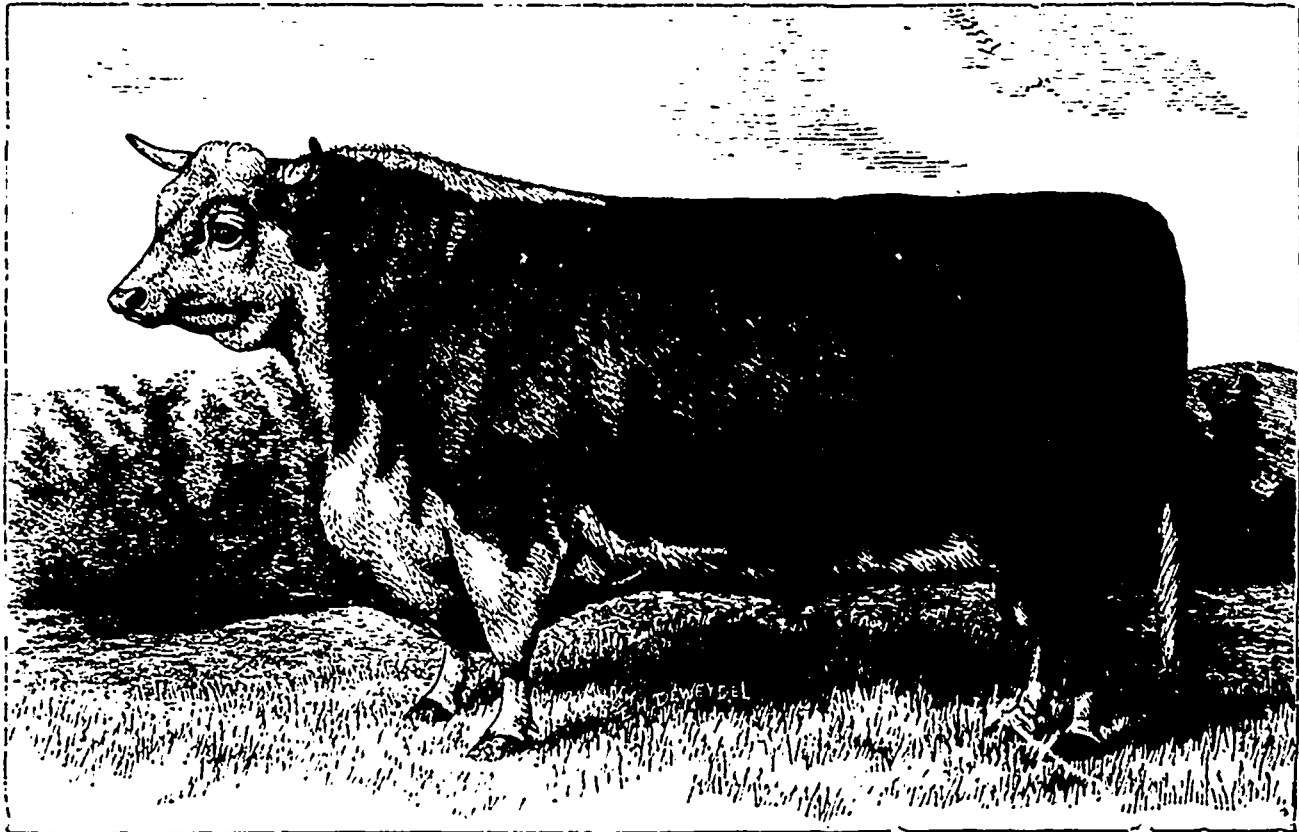
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Scaled tenders addressed to the undersigned, and endorsed "Tenders for Chantry Island Works," will be received until Thursday, the 17th day of December next, inclusively, for the construction of works at Chantry Island, Bruce County, Ont., according to a plan and specification to be seen on application to Mr. James T. Conway, Town Clerk, from whom forms of tender can be obtained.

Persons tendering are notified that tenders will not be considered unless made on the printed forms supplied, the blanks properly filled in, and signed with their actual signatures.

Each tender must be accompanied by an accepted bank cheque, made payable to the order of the Honorable the Minister of Public Works, equal to five per cent. of the amount of the tender, which will be forfeited if the party declines to enter into a contract when called upon to do so, or if he fails to complete the work contracted for. If the tender be not accepted the cheque will be returned.

The Department will not be bound to accept the lowest or any tender.

By order,

A. GOBEL, Secretary.

Department of Public Works,
Ottawa, 10th November, 1885.

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Fresh in Milk, of good individual merits, which
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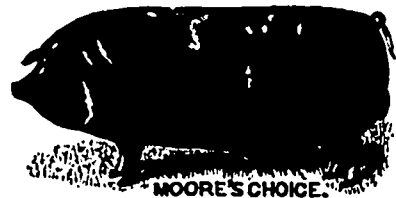
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As produced and bred by A. C. Moore & Sons,
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We are the largest breeders of thoroughbred
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We are raising 1000 pigs for this season's trade.
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It is the only remedy that relieves a hog when smut poisoned.
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(None genuine without this Trade Mark). Beware of Imitations claiming to be the same as Haas' Remedies, enclosed in
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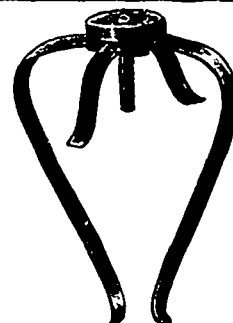
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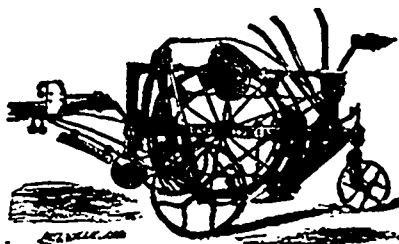
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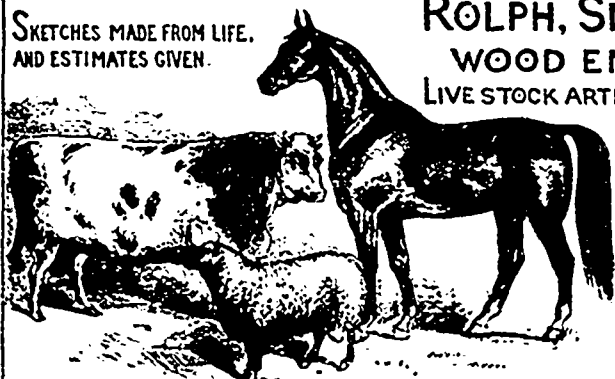
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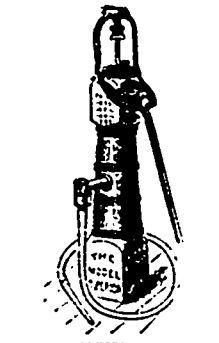


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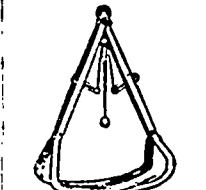
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- 6. The English Cart Horse.
- 7. Report of the Select Clydesdale Horse Society of Glasgow.
- 8. General Agricultural News.

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