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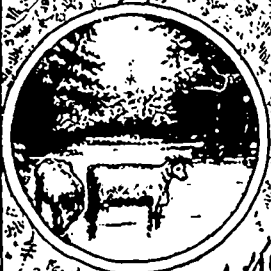
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THE CANADIAN LIVE STOCK AND FARM JOURNAL

Devoted to the Interests of the Stock-Raisers and Farmers of Canada.

VOL. VI.]

TORONTO, OCTOBER, 1889.

[No. 72



A GROUP OF OXFORD DOWNS.

Owned by Smith Evans, Gourock, Ont.

Our Illustration

In the above illustration our artist depicts with effectiveness a trio from the pen of Oxford Downs that won for their owner the silver medal at the late London Provincial. The ram, Lord Evans, is a truly representative Oxford, possessing their many features of merit to a marked degree. He is two years old, and was bred by Mr. Henry Arkell, of Arkell, Ont. The head of this ram is well defined, jewelled with a pair of bright, active eyes, and surmounted with fine ears. Viewed from before he presents more than faultless front, deep and broad, with a prominent chest. His body is snugly ribbed, and his loin is of the best, being thick and of good breadth. As a covering, he carries a fleece of a rare order. It is very even, little difference being discernible between that covering the heart ribs and that on his hind quarter. It is lengthy, of fine texture, and of a bright lustre. Not the smallest space is left uncovered, from

his well-woolled head to his hock joints. The two shearing ewes, Flora and Daisy, were both sired by Johnny Arkell, and have been both bred by their present owner. Flora is slightly lighter in the color of her face, but otherwise there is little to separate them. They both do great honor to their owner's skill in breeding, for two better ewes are rarely to be found in the one flock. Daisy has fully the better fleece, as it wants for nothing in point of texture, soundness, and lustre. In form they are as much alike as they could possibly be. Their heads are neat and clean, chests full and advanced, with barrel and quarters of the best.

Mr. Evans has been breeding Oxfords for over nine years, and his foundation stock were drafts from such flocks as those of Messrs. Peter Arkell, John Arkell, and John C. Ross. The selections were all imported animals or from imported stock, and Mr. Evans has since kept up the high merit of his flock by rigidly

adhering to the principle of breeding to the best. On the farm there is at present a flock of fifty-three, offering a splendid lot for the selection of superior rams and ewes for the starting or improvement of a flock. These are constantly being added to by importations. Last year Mr. Evans captured the pen prizes at Toronto, Hamilton, and Guelph, and many others as well, which added to the many won this year makes a glorious record. The honors won by members of this flock at the late London Provincial, where they won first in all classes but one, would of itself place them well to the fore as one of the best flocks of Oxfords in Canada. Coming to Toronto Industrial, equally good results attended their showing, the awards of this flock almost invariably agreeing with those of the Provincial. Mr. Evans is also a breeder of Berkshire pigs of the best quality and type.

The farm, comprising 200 acres, is situated $2\frac{1}{2}$ miles from Gourock and 6 from the city of Guelph, in the county of Wellington.

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TORONTO, OCTOBER, 1889.

In the newer sections it is well to bear in mind that it enhances the warmth of a wooden building very much to line it with tarred paper on the inside, which may be kept in place by narrow strips of lath or in some other way. In older sections, where the buildings are all wood, this should not be forgotten either. Those who have not tried it can scarcely realize the difference in temperature that is produced in stables by the adoption of this simple contrivance. In putting up new buildings better all-round results will be got by using stone and mortar for the basements, but where such material is not to be hand except at great cost, buildings almost as warm may be erected by using boards and tarred paper. In any case make every effort in reason to have the stables in which cattle are kept as comfortable as it is practicable to have them. Either tarred paper or stone and mortar are cheaper heating material than food.

"It is the scrub, not the lawyer, that writes the mortgage on your lands," says Thomas Dykes in the *Breeders' Gazette*. The truth of this statement has long been established in England, and has been strongly endorsed on this continent. There was a time in the history of nearly all our breeds when single animals sold for fabulous prices, but now that time is largely past, and the first cost no longer remains as an argument for the keeper of scrubs. Pure-bred bulls of nearly all breeds are within the reach of the ordinary farmer, and if but a young bull is secured and a thorough course of grading up and culling out is followed, a herd will soon be formed possessing the distinctive and valuable qualities of the pure-bred, though not, perhaps, as intensified. How some will stand in their own light in this matter is beyond comprehension, for we know of places where the best of Shorthorn bulls are placed by a true philanthropist at the service of his neighboring farmers for nothing, and yet but few use them. Such a condition of affairs is, to say the least, deplorable, for if we are to hold the position our facilities entitle us to in stock-raising, a reversion of such opinions must be made. We shall endeavor to do our share towards its accomplishment, and if our readers will do the same, it only means a matter of time to bring about this much desired result.

There is considerable to be said in favor of raising autumn colts. The work of the dam is not required

while she is suckling the foal. When the colt is weaned it is at a time when the grass is young and plentiful, which tends to promote continued growth under the most favorable conditions. The young beast must, of course, be kept in comfortable quarters while the weather is severe, but may run in a yard daily with the dam when not cold or stormy. It cannot be said that this method of rearing colts has met with much favor in this country, but we fail to see why. Sometimes it is said that there is more difficulty getting the mares with foal at the season indicated, but we fail to see why such should be the case. Our fear is that because of the proneness of farmers to adhere to old-time methods, there is a tendency to raise objections that are more imaginary than real. By the present system the use of the mare for purposes of labor is certainly of less value than it would be if foals came in the autumn. It is also probable that the mortality amongst new-born foals would be diminished, owing to the exercise the dam would get in the performance of labor in the summer season. An autumn foal would be better able to endure labor when put to work, as it would then commence work at the age of three and a half years rather than at three, as is the case now. Injury from work is oftenest inflicted during the first year of labor. The matter is at least worthy of the serious consideration of our farmers.

THE season is at hand when special vigilance is required on the part of the farmer in the care of live stock. Milch cows, calves, and young swine must be carefully housed in frosty nights, and along with these colts, store cattle, sheep, and lambs, must have protection in time of storms, or the farmer will pay dearly for his neglect to provide this. The rapid changes of weather in autumn are severe on all kinds of stock not well-cared for, while the difficulty of caring for them properly is very much enhanced by the crowding labors of the period that so much distract the attention of the farmer. He has his roots to care for, his grain to market, his plowing to push forward, and, it may be, some draining is engaging his attention, so much that it is with difficulty that he cares properly for his stock. Cold, drenching autumn rains are particularly injurious to calves, sheep of the long-wooled breeds, and to colts. We have known exposure to one cruel rain-storm cost a farmer the loss of three good specimens in a flock of fifty sheep. The farmer who allows his milch cows to sleep out during frosty nights pays a heavy penalty for his neglect in the form of diminished yields, and it is important to remember that a similar exposure of store cattle calls for a similar penalty in degree, if not in kind. The taking-in and turning-out periods require a greater watchfulness on the part of the farmer than any other seasons of the year. It is a great matter, therefore, to have winter quarters ready for all kinds of stock before the evil days come.

THERE have been whisperings in some of the papers of both England and America regarding the propriety of establishing a record of the returns of Shorthorn cows at the pail. Without discussing this question just now, we wish to say a word regarding a matter which it has suggested to our mind. Would it not be better in future to rear all the females from Shorthorn herds by hand? If Shorthorn cows are to regain the prestige which, relatively, they held long ago as milkers, they must be bred on principles calculated to induce milk development. This can never be done satisfactorily where the calves suck their dams. The

economy of such a course is so patent that it is not likely to be questioned. The farmer who adopts it can produce both beef and milk under very favorable conditions, which renders him more independent of the fluctuations of the market in either case. He keeps himself in a position to sustain cheaply the fertility of his land and so grow good crops, and to reap the advantages accruing from the meat and dairy markets. This would leave none but calves intended for bulls to suck their dams, and indeed the number to be reared in this way might well be cut down with profit to bulls intended for the show-ring, or for a special market. That good calves can be so reared has been demonstrated over and over again, and it has been made quite certain that a female reared thus is more likely to be a good milker than one reared on the dam, because the tendency to over-fleshiness is never so marked in the case of hand-fed animals.

Autumn Care of Sheep.

In countries where the winters are mild sheep-raising can be carried on with comparatively little care other than that of protecting them from the ravages of wild animals, removing the fleeces from them in due season, and providing them with sufficient pastures. Under these conditions, however, there can be but little permanent improvement in their condition other than what is brought about by the introduction of rams for crossing purposes. But it is quite different where they are subject to other conditions of domestication, as housing and hand-feeding. The limit of improvement then is the skill and care of the shepherd, and may be endlessly progressive.

After the lambs are separated from the ewes, they (the lambs) should be placed upon nutritious pastures and fed some grain or meal supplement, moderate in quantity, and this should be continued with some variations until the following spring. There is nothing better for this purpose than unground oats, although a little bran added improves it, and when the lambs are to go to the butcher at Christmas one half the mixture may consist of peas. This grain supplement may be fed in the field in any kind of a shallow trough not easily upset, and water should be provided, abundant and pure, a feature of lamb-tending that is too often overlooked. In the case of ewe lambs intended for breeding the grain ration should be very moderate, but all lambs intended for the block may be pushed with advantage.

Where rape has been grown the lambs may be turned on to it at the proper season, and left upon it until it is all eaten or buried deeply by the snow. As soon as turned upon the rape all grain feeding should cease, as the rape is of itself a most excellent food for fattening. The sheep not intended to be kept over may also be prepared for market in this way. At weaning time they are better separated from the flock where there are facilities for this, and pushed on quickly until the rape season or until sold.

Finishing lambs by this method is found to be profitable. In some localities, particularly in the county of Wellington, lambs are bought up regularly in the autumn for the purpose of feeding upon large fields of rape that are grown. These lambs sell at a good figure for our home market, but they are bought up in ever-increasing numbers for the American market, although a duty of twenty per cent. is paid on them when they cross the line. We fail to see why there is not room for a very large development of this process in all sections where rape will grow readily,

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which it will in all soils well-suited to the growth of turnips. The mode of its culture is precisely the same, only that it requires less thinning than turnips.

The breeding ewes do all the better if put upon good pastures as soon as they are fully dried. Unless milked partially two or three times after the lambs are taken away there is danger that the bag will spoil, and so render the ewe useless for purposes of breeding for all time. Where the pasture is poor they require a grain supplement, which may be similar to that given to the ewe lambs, as mentioned above, but where grass is abundant they will soon make up the flesh lost during the period of suckling.

There is much diversity of opinion as to the period at which the mating should take place. Some advise having the lambs come early, others prefer them late. In deciding this question much will depend on the object of the breeder and his facilities for protecting and caring for the young lambs. When they are to be sold for breeding purposes, other conditions being suitable, they should come early, for unless they are of good size in autumn they will not sell well. The same plan may be adopted where very early lambs are wanted for the butcher, in which case the dams may be quickly fattened and sold. Where the lambs are intended for ordinary autumn sale they may better come late, as late perhaps as the first of May, when the weather is pretty sure to be fine, and the nights are so warm that they do not require to leave the field. When they come in April the labor of tending them properly is more perhaps than in March, when they are housed, and liability to loss quite as great on the whole. It is desirable that the lambs should come as near one time as possible that the season of special vigilance may be shortened. This may in part be controlled by the breeder. If the ewes are in an improving condition, induced by good food, either pasture or the same with grain supplement added, at the season for mating they will the sooner get with lamb.

Different methods are adopted of caring for the ram at the season for service. In most instances he is allowed to run with the ewes without any extra food. This is not good for the ram where the flock is large, though it is very convenient. A second mode is to keep the ram in and well-fed, except for two or three hours in the morning of each day, when he is turned into the flock. A third is to drive the flock up to their yard each morning, and when the ewes in season are discovered by the ram they, along with him, are housed for a portion of the day. The last method is the best for the ram, and it has the further great advantage of letting the shepherd know when the ewes are coming in in the following spring.

Late autumn is the season when sheep and lambs with long open fleeces are particularly liable to injury from cold rain-storms. They should be carefully protected from these. Sheep will stand a large amount of cold, but not of wet and cold.

In the daytime they are better out until the pastures are hidden with snow. They are safer at night, that is, in a fold where they can go and come if they choose when the weather gets rough, but the day should be spent in the fields as long as they can get at the grass.

Sheep are fond of fresh pastures. In the autumn there is usually opportunity for gratifying them with change. They can gather food from stubble fields, around the fence corners of ploughed fields, and in cattle pastures not required any more for that purpose until another year. Give them as much change as possible, and they will be all the better for it.

A Day at Rockland.

THE STOCK FARM OF W. C. EDWARDS AND CO.—THEIR HERDS, SILO, AND METHOD OF HORSE FEEDING.

A central pivot around which swirls a life of commercial, political, and agricultural activity, is the firm of W. C. Edwards & Co., whose headquarters are situated at Rockland, Ont., on the shores of the Ottawa, and whose branches extend afar up and down that picturesque river. Their mills at Rockland, with their many modern facilities, annually send forth vast supplies of sawn lumber, giving employment to the residents of a village of no small proportions, thus keeping it in vigorous life. Standing amid the buzzing saws, clattering machinery, and listening to the bustle, further augmented by the clang of mauls, the observer is astounded at the immensity of the work being done. Colossal though the lumbering department of their work may be, yet not inferior to it is their sphere of labor in the direction of agriculture. Of farms the firm possesses no less than fifteen, situated at different places along the Ottawa, and all more or less stocked with pure bred animals of the various breeds.

After a short though instructive turn through the mills, the proprietor, W. C. Edwards, M.P., hurried us away to his often-sought retreat to see his favorites, personified in a bevy of blue-blooded Scotch Shorthorns, that are kept at the homestead and under his supervision at all times. To Mr. Edwards' father is due the honor of being the first to introduce pure-bred Shorthorns into Russell County, which he did in 1863, by bringing in two cows, a heifer, and a bull. Since then the breeding of Shorthorns has been more or less followed, and the herd has gradually increased its numbers until now it comprises forty head of pure-bred animals. The first animal to make its appearance in the stable-yard for inspection was the massive bull Pioneer, calved December, 1886, and imported by John Dryden, M.P.P., of Brooklin, Ont. This bull is a prime animal, and shows distinctly the traits of his Scotch descent. He was got by Patriot (53390), dam Lady Marjorie, by Perfection (39185). Carrying himself in capital style, he displays to excellent advantage his ponderous front of immense depth and breadth. About the head he is clean and shows quality, though there is not a tinge of femininity about his appearance. From the excellence of his frontage, it would be naturally expected that there would be a marked drop in his crop and a leanness about the shoulder-blade, but the fact is that but few bulls indeed may justly claim to be better than he in this region. A deep barrel and strong back fronts a loin broad and thick, while over all there is an unctuous skin, pliant and dense, mantled with mossy hair that would bid defiance to the fiercest blast of midwinter. In length of hind-quarter he is fair, while he carries his flesh well down behind. To our mind this bull is the plum of the lot, though this does not by any means slur the others. He presents a splendid appearance, being even on top with an equally straight underline, and if it were not for the surpassing excellence of his fore-quarters that deceives the eye while viewing his hinder part, he would be a bull that for evenness and proportion would have but very few, if any, superiors. It is an old Scotch saw that "A gude goose may hae an ill goslin," so that we were anxious to see some of his get. We were treated to a view of a number of them, and from their quality and uniformity we drew the conclusion that in prepotency Pioneer lacked nothing. Chancellor=9549=a calf of 1886, got by Red Em-

peror, dam Coral, and bred by John Dryden, M.P.P., was the next to appear. This bull, though not as close to the ground nor as snug-looking as Pioneer, is an animal of great substance. In his strength of bone, ruggedness of constitution, with rare quality as a crowning feature, he shows distinctly the prized characteristics of the Cruikshank strain. He has also a thick and heavy fore-quarter, and a back and loin that would carry a wealth of flesh. Chancellor is an excellent handler, and, to our mind, he should prove a producer of stock with superior feeding qualities.

As these two bulls were the only ones at the homestead—seven others, all pure-bred, being scattered over the surrounding neighborhoods, placed there by the unparalleled liberality of their owner for the free use of farmers—the females were next paraded in the stable-yard. Sweet Rose, calved 1882, was imported by John Dryden, from the Cruikshank herd. She was got by Good Hope (44883), dam Rose by King George (28968). A feature of merit that at once strikes the onlooker is the exceptional breadth of her loin, and this, we may say here, is characteristic of all the females of this herd. This cow is the owner of an exquisite head, surmounted with a pair of beautiful horns. Her barrel is lengthy and deep, with ribs springing out well from a back straight, strong, and nicely covered. Out of her, from Pioneer, we saw an extra fine March calf, roan in color, and smooth and neat in form, with plenty of quality. The next to come under our notice was Bounce=15415=calved 1885, sired by Lord Glamis=1268=(48192), dam Bloom by Baron Sunrise=1223=(45933). She was bred by John Dryden, and greatly does she honor his herd. In color she is red and white, and in conformation thick and smooth, with a deep, full body, and neat and trim appearance. Twilight, bred by E. Cruikshank, Lethany, Scotland, calved December, 1885, by Perfection (37185), dam by 3rd Duke of Carolina, is a roan of matchless form, well-turned in all her parts, with a splendid fore-quarter, and a hind one fuller and better than any of the others (though not as neat about the head as Sweet Rose), inclining us to select her as the belle of the harem. We were next favored with a view of Belinda=14592=calved November, 1886, by Vensgarth (47192), dam Belle by Royal Barmpton (32996). This lusty-looking cow is a pleasing red color, full in front, with heavy shoulders, thick loin, and plump quarter. A comfortable-looking yearling, evenly balanced and nicely rounded, is Bountiful=15414=by Vensgarth (47192) out of Bounce, Russell Rose=15416=is another yearling with capital prospects. She possesses the much-valued Shorthorn feature of length from the hooks to the pin-bones, with a depth before and behind that would well become an animal of maturer years. The calves were an even lot, most of them from Pioneer and from the above females. They include Dolly of Rockland=16720=calved April, 1889, out of Lansdowne Daniel from Pioneer; Dinah of Rockland=16721=calved March, 1889, by Pioneer; and Victor of Rockland=17931=calved April, 1889, by Pioneer, and a number of others that make an excellent selection to choose from.

Before leaving these stables we inspected a large silo, 16x32 feet, which had been filled with cut corn, but was now empty, as it had all been fed. Mr. Edwards has proven the silo to be a thorough success with him. The studding used is somewhat wider than that ordinarily employed, being 11 inches, and these were covered with with two ply of boards, with tarpaper between. The floor was hard and smooth.

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being made of the clay naturally, this pounded solid, with a small quantity of Hull cement added. The clay alone would, in Mr. Edwards' estimation, have proven equally good if well pounded. The cost he estimated at about one hundred dollars, and its capacity about one hundred tons. He has about ten acres of the finest Mammoth Southern Sweet fodder corn, the best it has been our pleasure to view this year, all of which he proposes making into silage.

Crossing the road we visited the horse stables. Owing to the vast amount of work to be done by horse labor they have on hand three hundred head of horses, the majority for the shanties, mill, and farm work, with a few light drivers. The method of feeding such a number as this, it may be surmised, would receive considerable attention. Mr. Edwards has made this question a study for years, and as the outcome of all his observation and experiments, he has finally adopted the following method: The hay is all cut, and falling into a large open bin at one end of the row of stalls, on the floor on which the horses stand, it is then thrown into two troughs about twelve feet long by two in depth and breadth. In these it is saturated with moisture, and four pounds of this is fed night and morning, and with it also one-half pound of bran and five and a quarter pounds of a mixture of oats and barley, in the proportion of one hundred pounds of barley and two hundred pounds of oats. At noon nothing more is fed than four pounds of unground oats. This system of feeding horses has been thoroughly tested here, and Mr. Edwards fully endorses it. Another item in the management here worthy of recording is the absence of all odors in the stables, owing to the free use of gypsum. All the liquid manure is taken up by the absorbents, gypsum and straw. By extra tight floors and the liberal use of these materials, we think Mr. Edwards is right in the conclusion that he is thus able to save his manure as completely as it is possible to do it, and without the great expense and trouble of tank building.

Owing to the want of time we were unable to visit another farm owned by Mr. Edwards at the North Station Mills, which, we believe, is stocked with a splendid herd of forty head of pure-bred Ayrshires. For the same reason we were prevented from inspecting the Jersey herd and the rest of the Shorthorns. Within these precincts one could spend many a day with great profit, and through the whole-hearted hospitality of the genial host, with unbounded pleasure as well. The herds are well worth travelling some distance to inspect, and there are a number of animals among them that might with honor hold the highest position in many Ontario herds.

Tuberculosis in Cattle.

Of all the diseases that may afflict domestic animals tuberculosis is one of the most difficult to cope with, owing to the fact that it is caused by a very small bacteria, possessed of strong vitality and producing spores in great numbers. Although we have never experienced such serious ravages from this and other like diseases as our neighbors across the line or those over the water, yet by the importation of diseased animals some of our stockmen have suffered severely through it. Recognizing the importance of our live stock interest, and also being aware that there was a general desire among stockmen to know more as to the nature of this disease which may so seriously impede progress, the Dominion Government appointed a committee to look into the matter, and the result of their

labors appears in a report just issued, bearing the above title.

The disease is treated of fully, and this report should be in the hands of every stockman. The disease is due to small bacteria that grow best at the body temperature of warm-blooded animals, 98.5° to 100.5° Fahr. These micro-organisms growing in the body of the attacked animal give rise to small tubercles, and hence the name of the disease. The affection very easily passes from one animal to another, through the agency of the minute rod-like bacteria or by the aid of the spores produced by them. The saliva of a diseased animal contains an innumerable number of these organisms, and if this falling upon the floor or ground and drying the spores will not die, but remain dormant, and many experiments have shown that even if dried for several months, they yet possessed power to reproduce the disease when used to inoculate animals. The temperature of dairy sheds, it is stated, is such in summer as to near that at which the growth of the bacteria outside of the body is possible. The report gives the different animals in order of their respective liability to the disease as follows: Man, milch cows, fowls, rodents, pigs, goats, sheep, and horses.

Among the conditions given that render an animal more susceptible to the disease, we notice the following: Starvation, deficiency of oxygen, exhausting secretions, and heredity. Starvation is said to act by causing degeneration of the tissues, and diminishes thereby the animal's ability to resist the growth of the parasitic microbes. By bad ventilation there is an insufficiency of oxygen, and this is one of the most common and fertile causes of the disease, being very favorable for the spreading of the disease from one to the other, which is indicated in the fact that in the lungs the tubercles are most frequent. Exhausting secretions, such as prolonged milking, by reducing the vitality of the cow through the great drain on her system, is said to account for the fact that the disease is so prevalent among milch cows. In respect to heredity, many attribute it to the transmission from parent to offspring, not of the actual virus, but of a condition of the tissue that is thought to be very favorable to the development of the organism. Some hold that the bacilli are actually contained in the ovum or spermatozoon, as some experimenters have found, and that it thus becomes a part of the embryo and foetus.

There is abundant evidence given to show that this fell disease is transmissible from the lower animals to man through milk and meat. So very prevalent is it already in the human family that Dr. R. Koch, of Berlin, has estimated that it is the cause of one-seventh of all the deaths of the human race, while fully one-third of those that die in middle age, he states, are carried off by this disease. Milk is liable to be infected, and it may be transmitted to calves as well as to man. The symptoms of the disease, when it is general, are shown in great emaciation. If a cow, the milk becomes poorer in quality and lessens in quantity. The weakness increases with the wasting, and there is distress in exertion, while a hard, dry cough and hard breathing may be heard.

In writing of the remedial measures the two points given prominence are (1) that the disease may be transmitted to man from the lower animals and from man to the lower animals, especially through the ingestion of tubercular diseased milk or meat; (2) that it spreads from animal to animal. There is no cure or antidote for this disease, and from this they urge that legislation follow the two lines of prevention and extirpation. In respect to the former, they say there

should be included provisions for improved hygiene of cattle-sheds, etc. (especially in the direction of providing proper ventilation, pure water supply, and adequate disinfection of stalls, etc., wherein tubercular animals have been kept. All suspected cases should be isolated, and every care taken against the use of the flesh and milk of diseased animals as food for pigs, fowls, etc., and that fodder, litter, and water, should not be taken from one animal or stall and given to another. To ensure the extirpation of tuberculosis they advise that it should be included in the Contagious Diseases (animal) Acts, so as to provide (a) for the slaughter of diseased animals when found on the owner's premises; (b) for the payment of compensation for the slaughter of such animals; (c) for the seizure and slaughter of diseased animals exposed at fairs, markets, etc., and during transit; (d) for the seizure and slaughter of diseased foreign animals at the place of landing in this country.

This is certainly a matter very important to our live stock interests, and if we are to keep as clean a bill of health as we have hitherto enjoyed, it behoves us to at once take preparatory steps to keep this disease without our borders. The conclusions arrived at by the commission commend themselves, and should be speedily provided for by the Government.

Meeting of the Sheep Breeders' Association.

On Thursday evening, Sept. 12th, those interested in the work of the above Association met at the City Hall, London, and were treated to a series of papers and addresses full of interest and pregnant with thought. Mr. Mortimer Levering, of LaFayette, Indiana, Secretary of the American Shropshire Association, treated of the "Advisability of One Record for Shropshires in America," with ability. Touching on the history of their Association he said that in 1884 the first call was made to meet and organize a record, which resulted in the formation of an association called American so as to embrace both United States and Canada. As an argument in favor of a single record he stated that nearly all our imported sheep are sold in the United States, and that under the double record system the purchasers would have to enter them again. As an indication of the carefulness they have always taken in registration he made the statement that they had declined to register more than 2,000 sheep owing to the owners being unscrupulous. Nevertheless they had over 12,000 registered, and the 5th volume issued. Their rules were the outcome of the thought of the oldest breeders, and hence in that respect could not be improved upon. He also said that there was no foundation for the rumour that the fees would be increased. After presenting the many excellent features of the Shropshire in a forcible way, exhorting the breeders to elevate the standard and improve the breed, Mr. Levering closed his address with the slogan, "Each for the other and all for the Shropshire." After acknowledging the warm vote of thanks accorded him, Mr. Levering, in replying to several questions about wool and other similar matters, presented the Shropshire qualities in a strong light, which brought Mr. Russell, of Richmond Hill, quickly to his feet, and he, in a short but forcible speech, said a good word for the Cotswold, emphasizing that the breeders should not be carried away by the present Shropshire demand; he concluded with the very sensible statement that every breeder should choose the animals adapted to his soil and climate. After a few conciliatory words from Mr. John Dryden,

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M. P. P., in respect to the feeling of opposition evinced in the meeting in respect to the breeds, Mr. J. C. Snell, of Edmonton, presented a paper of much merit on

CLASSIFICATION OF SHEEP AT SHOWS.

The subject was introduced by a brief reference to the claims of exhibitors on the Exhibition authorities, and after stating that the formation of associations of breeders of the different classes of stock should mark an era in the method of classifying, Mr. Snell presented his subject as follows:

"With regard to the classified sheep at the fair I think that the prize list which has been adopted for the Provincial Fair for the last few years has been generally satisfactory to exhibitors. I think that a sweepstake or championship prize might well be added for the best male and for the best female in each class. I believe the classification of the Provincial has been generally adopted by the other fair associations throughout the country, except that in some the old custom is still adhered to of requiring ewes to be shown in pairs instead of singly. I have always contended that there is no reason for this that does not with equal force apply to other classes of stock, and it would be just as reasonable to require cows or sows to be shown in twos. I claim that in this as in every competitive examination there should be a place in every prize list where each animal may win on its own individual merits without being encumbered by the faults and failings of a companion, or being helped by the excellences of another. I have no objection to a prize for groups of any number as representing a flock, but first let there be a prize for single animals in each section of a class. As to the number and ages which should be included in a flock prize, I should say that for a breeding flock there should be a ram to head the flock, and he may be of any age, but it might be well to require that he should be one year old and over. Then I think that two ewes two years old, two shearling ewes, and two ewe lambs make a number easy to be handled. A breeder on a small scale can afford to prepare this number, and it gives him a fair chance to compete with breeders of large flocks. I object to a prize which is given at many fairs in the States for a ram and five of his get, because it leads to the over-feeding of the stock ram which should not be made fat as it is liable to injure his usefulness as a getter if not to destroy it, and the offer of such a prize opens the way for the practice of fraud and misrepresentation, or at least for suspicion. Objections have been made to the offering of prizes for ewes older than yearlings, because of the tendency to impair their usefulness as breeders by making them excessively fat. While I admit that there is danger of this yet I think we ought to have some place in our prize list where we can show to what size and weight matured animals can be made to attain, and since we allow aged rams to compete in high condition there is no good reason why ewes should not be granted the same privilege if our fat stock shows were well sustained and patronized. I admit that they are the proper places to show the possibilities of the attainment of heaviest weights at different ages, but such has not been the case."

Mr. Dryden followed, speaking earnestly on "Protection of Sheep from Dogs." He showed that there was room for a greater development with us in regard to sheep-raising, and emphasized the fact that much of our country was better suited for the raising of sheep than for any other of our domestic animals, but that the reason given by the inhabitants for not following this branch of our stock husbandry was that their flocks were very liable to be destroyed by dogs. This obstruction the speaker urged should be removed at once. In his own county Mr. Dryden said the returns showed a loss of \$4,000 through dogs destroying sheep, and he was of the opinion that fully \$50,000 worth was destroyed in the whole province. If dogs were correspondingly advantageous it would be all right, but they were by no means a necessity. His idea was to increase the tax and so lessen the number. On the conclusion of this address the next subject,

IS SHEEP-GROWING PROFITABLE TO THE CANADIAN FARMER?

was treated of in an intelligent manner by Mr. Mungo McNab, of Cowal. After touching on the earliness of sheep-herding in the annals of the human race, he then advanced the following arguments in favor of sheep-husbandry:

1st. There is much less capital required than in any other branch of stock-keeping. It is not necessary that sheep be pure bred; the best of our common sheep are good enough, and such can be got at a reasonable figure, and with proper management and the use of well-bred sires there need be no fear of the result.

2nd. Sheep require the least attention of any kind of stock, and require less expensive housing in winter. A building that protects them from storms in winter is all that is necessary, while in summer they will thrive on comparatively scant pasture. They will also pick their living late in Autumn, and can be turned out much earlier in the spring than any other kind of stock.

3rd. They are the best scavengers the farmer can have, eating much that would otherwise go to waste, also spreading their droppings more evenly and on the poorest spots, thus helping to renovate the worn out lands.

4th. Their freedom from disease is also a strong point in their favor.

5th. They give the farmer two crops per year—a crop of lambs and a crop of wool. An ordinary Canadian ewe, fairly fed and looked after, will give from 7 to 8 lbs. of wool each year, this at the current price of 20c. per lb. will give a return of about \$1.50 for each sheep. A fairly-well managed flock of ewes will produce from 1½ to 1¾ lambs per ewe, and I have known flocks to give as many as two lambs per ewe. These lambs with fair attention will be worth on the 1st of November (taking the prices of the last few years as a basis) \$5 per head. This with the wool makes an annual return of about \$9 per ewe.

A grave mistake is made by the majority of farmers in selling lambs too early. They are picked up by jobbers about the 1st of August, or at weaning time, and are held by them until cold weather approaches, and are then sold at a handsome profit. Instead of selling they should be given good fresh grass and fed daily about one pint each of ground peas and oats mixed with bran. If all lambs were fed in this way from about the 1st of August to November their value would be increased from 15 to 20 per cent., and it would also tend to increase the demand owing to the flock being much better in quality. Another mistake committed by many is in always selling their best ewe lambs. A few of the best should always be retained, and care taken that they do not produce lambs until two years old.

Let us consider how the return of \$9 from each ewe stands in relation to the other staple productions of the Canadian farmer. The latest statistics which I have seen give the average return of each dairy cow at \$22. The food required to winter one dairy cow properly will feed three ewes, and the same in regard to summer pasture, add to this the labor of milking, and there is a very decided balance in favor of the sheep. Our cattle graziers consider that if a steer bought in October and disposed of in July brings them a return of from \$25 to \$30 they are doing well, and to do this they must feed meal liberally in winter, and each steer requires about three acres of grass in summer. Here again the same feed does them and their lambs in summer. Cattle grazing, therefore, is no better. The wheat crop of Ontario has not averaged more than sixteen bushels per acre for the last three years. This at the average price of 85c. per bushel will give a return of about \$13.50. After deducting the labor and cost of seed there is not a clear return of more than \$7 per acre. Therefore, while we do not argue that there is a fortune in sheep-keeping, or that it would be prudent to embark in sheep-keeping to the exclusion of everything else, we maintain that a flock of sheep will bring to the Ontario farmer as much or more money than can be derived from any other source considering capital invested and labor employed."

Mr. John S. Pearce then read a carefully prepared paper on "The Value of the Silo and Soiling Crops for Sheep," which space will not permit us to repro-

duce. Mr. Pearce was the donor of a magnificent silver plate for the winner of the sweepstake prize at the Provincial. This was displayed at the meeting, and certainly the Association is greatly indebted to Mr. Pearce's liberality in presenting them with such a handsome premium. Mr. Snell, of Edmonton, was the fortunate winner with his Cotswolds. The reading of this paper brought the meeting to a close. The opinion existed in the mind of some that the Association has for its purpose the booming of the Shropshire, and hence such were not inclined to give it the support and sanction the Association should receive. This feeling should be buried, however, and this may be facilitated greatly by the introduction of only those questions of vital interest to all, and not merely to satisfy any one section or class.

For the CANADIAN LIVE STOCK AND FARM JOURNAL Agriculture in the Old Country.

There is life in the Old Country yet, ivy clad as her lawn walls may be. The whack of the "merry fling-in tree" of Robert Burns may have been drowned by the burring sound of the mill drum, the song of the reaper may be hushed and the "fore-rig" forgotten (there must be still alive some old ones in Canada who enjoyed a "kemp" with the fore-rig) when the reaper hurries clicking through the corn, but there's a "heart" in the old place still. This week British agriculture enters, seared and furrowed and showing signs of long suffering and scars received in foreign conflicts, upon another chapter of history. The chapter may be its last but it is likely to be a long one. A Board of Agriculture has been appointed, with a leading English Squire of known agricultural sympathies as its President, and we are hopeful that farming may yet afford, to those who engage in it, an honest bite and a quiet night's rest after a hard day's labor. In competition with all the world, our big workshop, for it is nothing else, claims that her artisans must be fed no matter where the feed may come from. It is poured in from abroad in sack, barrel, and canvas, mint clothings round good beef, beef on the hoof, and cheese in the hoop casings. We must battle with all this, and pay rent and taxes as best we can.

Possibly in doing so we will not lose sight of the fact that while your best brains have been expended in clearing forests or reclaiming prairie, the best brains of our own have been devoted to the improvements of our live stock. At present we hold in our small island the best herd of studs and flocks in the world, and to the world we must be prepared to give them. The exchange will be a fair one and all parties must benefit. Possibly the first questions taken up will be the environment of cattle disease in this country, and closer quarantine systems in keeping it out of port and harbor with, I should imagine, increased killing accommodation at points of embarkation. That is a pretty fair programme to start with. The increase of our store stock is at present a leading question in the agricultural circles here. I am glad to say that storing has greatly increased of late, and that from within better than from without, the remedy may be supplied.

The event in live stock circles was the draught sale of Bates' Shorthorns from the Duke of Devonshire's celebrated herd at Stalker on the lovely bay Morecambe. There was a large attendance, about 400, comprising all the leading Shorthorn breeders, sitting down to luncheon, the Duke presiding. Nothing like dividend prices were obtained at best prices, such as were realised at the famous sales at Dunmore in 1876

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and 1878. Thirty-one cows and heifers fetched £3227 14s., or an average of £104 2s. 4d., to top being the yearling Duchess of Stolker 3rd to Mr. Petting for 258 guineas. Seven bulls averaged £107 14s., fetching in all £753 18s., the yearling Duke of Chatsworth drawing 170 guineas from Mr. Ecroyd.

Herefords have been selling well privately, and Lord Coventry has sold half-a-dozen bulls from his famous herd at Croune Court to go to Mexico. Her Majesty the Queen's first prize Royal winner at Windsor, Favorite, has been sold to go to Buenos Ayres, where the white faces seem to be in extensive demand; Hunter, from the same herd, going out as deck companion.

The first shipment of Sittyton Shorthorns went on board ship yesterday on the Mersey, and by this time are bound for Buenos Ayres. To Aberdomans the parting must have been sore, for the herd was a natural bulwark, so far as cattle breeders were concerned. It is to be hoped that this wholesale, though perfectly legitimate, system of cattle lifting will not become general. We would prefer to see drafts drawn, but the nucleus of the stock kept in their own home ground. However, the almighty dollar puts seas quickly between the objects we love—quickly as does the steamer.

The Americans who have been buying horses here all summer have been busy at the dock sides on the Mersey and Clyde. They have taken out very superior stock this time, and so have left considerable work on hand for the castrator. This will cause breeders here to be more careful in future. The Shire men will have to look more to hoofs and pasterns than they have done, and the Clydesdale men to mate for weight and size, as they were doing when the American demand first sprung up. They certainly will have to be content with third-rate prices in the market for animals that have not strength and weight enough for street requirements. It might be possible in time to get the large city contractors here to use smaller horses than they are doing at present, but in the meantime we must take things as we find them. Messrs. Galbraith Bros. have taken away a lot of good horses this year, both Clydesdales and Shires; horses which are all well set at ground, active and attractive. They are of the best winning strains of blood at home. The last shipment included six Suffolk Punch horses, two stallions, two mares, and two fillies. This means Suffolk breeding out west and the establishment of studs. I think that they are likely to have a considerable future in countries where a prejudice exists against too much feather on the leg. The Shires were nearly all from the celebrated studs of Mr. Forsham, Mr. Hart, of Cannoch, and Mr. Trotter, of South Acomb, who supplied them with a likely looking Chicago winner. Cannoch Quality, a full-bred Shire, has been scoring high honors amongst the Clydesdale two year olds on their own ground all this season, and no doubt a good many who believe in the style of breeding of which Mr. Drew was the chief apostle would have liked to use him, but the stud-book rules would cast his stock for registration in the Shire or Clydesdale stud-books. It seems rather unfortunate that this should be the case, and the best means should not be taken to secure the best end. Here was a choice horse on deck from the celebrated stud of Mr. Shaw, of Wintonmarleigh, who is very Scotch in his ideas about feet and pasterns. He was named Goth, and will take, like Quality, a little set-

ting aside in United States' show-rings. The third prize-winning colt at Windsor, supplied by Mr. Forsham, was amongst the number. He will grow in time into a very good stud horse. There are also some Hackneys, this breed now coming into power at home and abroad.

Peterborough being in the centre of the Fen country, there was, as might have been expected, a good turn-out at the annual foal show held last week. Rowell of Bury won chief honors in the class for colts. Mr. Parnell, of Peterborough, showed a good second, which was sold afterwards for 100 guineas, and Mr. Muntz, M.P., whose stud at Dasmore has taken very high rank of late, was third with a good useful sort. Mr. Muntz was first in the filly class with a very nice-looking daughter of Salt Regal. Good foals were shown off Mr. Sutton Nelthorpe's Vacillator, Mr. Topham's Thorney Tom, and Prince Victor, which claimed the championship for a nice black colt exhibited by Mr. Rowell. Some fairly good prices were given at the sale which followed. At Worsley there was held a very nice exhibition last week within the grounds of the Earl of Ellesmere. His lordship has given up showing, for a time at least, but Capt. Heatin, who manages the stud so successfully for him, had the choicest animals provided. Of these Vulcan, the champion of Islington, was the centre of attraction. The mares Nectarine, Fuschia, Nosegay, and Rosebud, were much admired. The Ellesmere stud may now claim to be the best representative stud of Shire horses in England, and we shall have heavy competition for the produce of Vulcan at one of the Ellesmere sales when they come to maturity. The horses are a little nearer the ground than they were twelve or fourteen years ago, when many fancied them to be a trifle leggy.

The Paris show is on while writing. Mr. Burdett-Coutts, M.P., has taken the medals for Hackneys and Clevelands, and Mr. Bruce, Aberdeen, a medal for three nice little Shetlands. The Stuart Stud Co. have scored heavily for riding and driving horses against all-comers.

London, Eng.

T. DYKES.

Assembly of Shire Horse Breeders.

A meeting of the members of the Shire Horse Association was held on Tuesday, Sept. 10th, at the City Hall, London. It is a matter much to be deplored that those connected with, and interested in, this industry did not attend in greater numbers, and thus give the Association that encouragement and assurance which all new societies so badly need. In the way of business nothing much was done, further than to appoint a revising committee, of which the following are members: Mr. Jas. Addison, Mr. J. Dunkin, Mr. Ormsby, and the President, Mr. F. Green, jr. At the solicitation of the Secretary, Mr. Henry Wade, the President had prepared a paper on the "Shire Horse and His Origin," part of which is given below and which he read to the meeting.

After moving and tendering a vote of thanks to the President, the Secretary brought the meeting to a close by urging the members present to use their influence for the securing of members for the Association. The Association then adjourned to meet again at the call of the President.

"THE SHIRE HORSE AND HIS ORIGIN."

Inhabitants of the British Isles have long been a horse loving race; it is a fancy which has been implanted in them from the earliest times, and by dint

of careful attention to breeding they have achieved many triumphs: but of these, none perhaps are more conspicuous than the establishment of two types of horses, the race horse and the heavy draught horse, types differing as much as the Greyhound and Mastiff, both breeds, however, are in their own way almost perfect, the former in speed, and the latter in strength. Many volumes have been written on the race horse but the same cannot be said of the draught horse, and it is only from extracts culled here and there that we are enabled to glean a meagre account of his ancestry. It is the intention of this paper to attempt a short and succinct epitome of the breeding of the English draught horse, which is now known as the Shire horse. The earliest account of the British horse is contained in Caesar's history of his conquest of Britain in the year 55 B.C., by which we find that our forefathers owned an enormous number of horses, which in times of war were used to draw the rude heavy chariots from which the ancient Britons usually preferred to fight. From the same narrative we glean that these horses must have been possessed of considerable substance and strength not only to draw these heavy chariots over the rough ways, which were dignified by the name of roads, but also to take them at full speed into the enemy's main body of troops, especially when we remember that each of these chariots contained a number of able-bodied warriors. The next witness to the character of the early British horse is to be found in two British coins of King Cunobelin, who reigned during the first century, and which are amongst the earliest pieces of money known to have been struck in England. Both coins bear a representation of a horse; the designs are rude, as might be expected, being the work of a period when the inhabitants of Britain were more accustomed to the methods of war and agriculture than of art. Looking at the representations in this light it is evident that the designer took his ideal from a deep carcass, wide buttocked breed with profuse mane and tail, i.e., from a type of horse that had many of the characteristics which our present Shire horse still retains. Before passing by with a contemptuous smile the efforts of some almost prehistoric artist of nearly 2,000 years ago, it will be wise to consider what his work has done for us. He has given us evidence of the existence at that time in England of what may fairly have been the ancestors out of which the massive yet active breed of which England to-day has so much reason to be proud. These coins were found on the borders of Norfolk, Suffolk, and Cambridgeshire, then the territory of the Iceni, a tribe which distinguished itself above all others by their stubborn resistance to the Roman troop, for their skillful management of the war chariot, and therefore in the efficiency of their powerful horses.

Years pass by and little can be gleaned in regard to our subject, and in the meantime it must be kept in mind that until the middle ages the work on the farm and all heavy cartage was performed almost entirely by oxen, the strong horses being kept principally for the purpose of war only. The venerable Bede remarks this fact, and states that it was only somewhere about A.D. 631 that prelates and other Churchmen of rank were permitted to ride on horseback on their journeys, and he goes on to say that they were at the same time counselled to select mares for their own use in order to spare the horses for the men in armour. It may be asked what connection this has with the subject of this paper, but a little consideration will show, that since in those days war was one of the chief objects of life and horses were much used therein for carrying men in armour, a strong horse was required, and as for some years the armour continued to increase in weight, only the largest and stoutest horses were equal to the task; this may be easily realized when one considered the weight of the load, which in many cases reached, if it did not exceed, 448 lbs., consequently there must have been a breed of horses possessed of considerable size and weight, existent at that time. The type of the horse which was used was at that period called the "Great horse" or the "War horse," and it appears to have been the constant aim of the Government to increase not only the number but also the size of the "Great horse," for various Acts of Parliament in the reigns of Edward III., Richard II., Henry VII. and Henry VIII., i.e., between the years 1327 and 1547 were passed which were obviously intended to increase the spread of sire

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and substance in the breeding district. The earliest record of this type of horse as cart horses is by Wm. Fitz Stephen, who wrote in the reign of Henry II., A.D. 1154, who gives an account of a horsemarket held in Smithfield, in which he expressly mentions, "There are also to be found here cart horses fit for the dray, the plow, or the chariot." In the reign of John we have distinct particulars of an importation from Flanders of 100 stallions, and it is from the blending nearly 700 years ago of these animals with the English breeds that some strains at least of our heavy draught horses must be said to date their origin.

(To be continued.)

Notes on Galloway Cattle at London Provincial Fair.

There was a large and fine exhibit of Galloway cattle at the Provincial at London from the herds of Messrs. McCrae, Guelph, and Mr. Kough, Owen Sound. The latter is a comparatively new exhibitor, but he has taken up the breeding of Galloways with a spirit which has already secured for him very marked success.

The cattle were shown in fine condition and were well judged—animals of true type and good quality being selected in every class. The competition between the rival herds was very keen, and it would be difficult to say which was most successful. Four aged bulls were exhibited, and Mr. Kough was easily first with Claverhouse (4250), bred by Messrs. Biggar, Scotland, after their champion bull Crusader, and full brother to their heifer Violet II., which gained 1st prize at Melrose in July defeating the winner at Windsor "Royal." Claverhouse weighs over 2,100 lbs. at 3 years and 2 months and is a splendid bull; with a capital head and neck; he has a deep and level frame; is well fleshed; stands on short legs; and is remarkably good in his sirloin, quarter and thighs. In the two-year-old class Mr. McCrae was 1st with Commonwealth (4515) by Cromwell, a very promising bull of great substance, with capital head and quarters, but not quite so fine in his shoulder as Claverhouse, his dam is from the famous Semirami tribe. The second prize was also awarded to Mr. McCrae for Count Palatine (4508), a stylish bull by Crusader, dam Cantatrice, a prize-winning family in Scotland.

The yearling bulls were the weakest class; Mr. McCrae being 1st with Gleucraig (5028), Mr. Kough 2nd with General Gordon. Mr. McCrae was 1st with a promising bull calf, Bruce (5948), from a Baley cow, and Mr. Kough's second was sired by his prize bull. There were 6 entries in the class of cows, and in this was the keenest competition between Mr. Kough's Countess of Glencairn (9501), and Mr. McCrae's Good Girl (7431).

Countess is a very handsome cow with a good head; fine skin and splendid outline; her back is uncommonly good, and her only defect is a little tendency to a Shorthorn width of the hook bones.

Good Girl is also a splendid cow. She is quite equal to Countess in quality and style; she has a beautiful skin; walks well; but she is not in such high condition as her rival, and eventually they were placed in the order named.

Either of these cows might very well serve as a standard specimen of the breed. Several good Canadian-bred cows were shown but they were, as a rule, defective in their heads, with high polls, and too long from eyes to muzzle.

In three-year-old cows Mr. McCrae had a decided first in Violet III. (9675), sire Scottish Borderer (669).

Watch the Publishers' Column. It will always contain something new.

This cow was third yearling at the English "Royal" of 1887, and has excellent Galloway character. Mr. Kough's 2nd, Mary Fourth (3237), is a cow of much substance with excellent quarters, but her head is not of the true Galloway type.

In two-year-old heifers Mr. McCrae's exhibit, Susie of Janefield (10533), is a very fine heifer with good head, fine coat of hair and handsome outline; she is descended from Susan 12th of Baley (8121), a very fine cow—saved from the wreck of the "Brooklyn" in 1885.

Mr. Kough had a good second in Mary 5th of his own breeding, and from the same dam as his 2nd three-year-old cow. In yearling heifers Mr. Kough had a decided first place with Miss Steele 5th. This heifer has not a perfect head, but is of great substance for her age, and is altogether a fine heifer.

Mr. McCrae's 2nd heifer, Hannah B. 5026, belongs to the famous Hannah tribe, and is valuable both on account of her breeding, and Galloway character.

In the class of heifer calves the 1st and 2nd are of outstanding merit. Mr. McCrae wins with Rance 9th, a very promising heifer by a Crusader sire, and from a prize-winning family on her dam's side.

Mr. Kough's heifer, Countess of Glencairn 3rd, is very promising, and could not be of higher breeding; her sire and dam being first prize winners in their respective classes.

The medal for best bull was given to Claverhouse; that for best female to the prize two-year-old heifer; and the diploma was awarded to Mr. Kough's herd.

The show on the whole does great credit to the breed. The first prize aged bull; first prize two-year-old bull; first and second prize cows; first prize three-year-old cow; first prize two-year-old heifer; first prize old heifer; first and second prize heifer calves would make a group of cattle difficult to match in any breed, and they are all, with one exception, imported or bred from stock imported during the last four years.

For the CANADIAN LIVE STOCK AND FARM JOURNAL.

Our Manitoba Letter.

(From our own Correspondent.)

The great topic here is still the crops and crop reports. A few weeks back the best judges, especially those who had no axe to grind, were pretty certain that a ten bushel average of wheat over the province was about all we could make out. The Government give fourteen and a half, and I read in *Colonies and India*, a rather pretentious London paper, that Manitoba would this year turn out 20,000,000 to 30,000,000 bushels of crop. By the same mail I am informed by a clergyman that his son near Virden has not his seed, and that judging from the letters we send home, many of them semi-official, we Manitobans are sadly given to lying. The truth is, you hardly understand us, we had in early June great prospects, in July it looked as if everything would be dried up, and since then in a good few places, especially on the Portage plains, the northern margin of the province and some favored spots elsewhere, there has since been wonderful improvement, and a good few men whose crop will amount to very near that of 1887. But Virden is badly hit, the best fanner there has only 17 bushels average, the next best 14, then 10, then 7, down to one who has not a bushel in an acre. The same is true of other points. A light yield generally shrinks when it goes through the thrasher, and there is a good deal of that besides some that was plowed under months ago. In explanation of these very wide discrepancies I have

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only to say that the seven blind men who went out to see the elephant had equally divergent opinions, and you have in all the contradictory evidence a very accurate outline of our crop condition. I think the bad will do worse, and the good rather better than we reckoned on two months ago, and that under six millions will be pretty near the total of wheat we will have to sell out of this year's crop. Oats and barley worse than ever before known. The quality is capital. We are so well off, or so lacking in enterprise, that we did not send but one bag of our '89 crop east in competition, but I learn that that was first at Toronto, and that we could have placed a good deal more if we had only sent it there. Kenneth McKenzie, M.P.P., was the exhibitor of that wheat, and if our younger men had half his fighting spirit, it would be better both for themselves and the country. Our Government got together a very fair sample of grain in the straw and thrashed to show at all the eastern points, and the C.P.R. put in it a very nice car, besides what they are sending to England and the seaboard provinces, and I think from all I know of Ontario that if you had had to fight the drought we have suffered from here you would have wanted to skip out and leave the country to your creditors. We have given up that game now for this among other reasons, that the man who goes over to Dakota finds himself out of the frying-pan into the fire. The land is no better, seldom so good, except in the Red River valley proper, and the tax collector is a mongrel between horse leech and shark, who puts a taxable value on every old implement in sight as well as on the watch in your pocket. A friend of mine over there burnt one or two machines lately to escape the taxes, and as he has far more valuable equipments than his neighbors he pays on his total of ten sections, stock and implements, over \$1,000 a year. In writing so about Dakota I am not trying to draw a red herring across the trail, but I think it only fair that after freely confessing our own shortcomings, I should also confess the iniquities of our much vaunted rival. What is still worse, much of our loss this year comes from those balmy breezes that blow from the south and south-west. I am creditably informed that the wind that once in a season or so strikes us at 100° in the shade has been as high as 114° at midnight down at Aberdeen in Dakota, and our present hope is that we may have some ugly weather from north, east, or any quarter that will bring rain, a thing we now never get from the south-west. It was south west wind that blew the seed out of many an acre in Dakota more than once or twice last spring, and the same wind parched us up more or less all summer. We are badly in need of rain this fall to put our land in trim for next year's crop, and unless we have it within a month the outlook for next spring is pretty serious.

We have a great advantage in the lakes and swamps to the north of us. Thousands of cattle will this winter be supported here on the natural herbage of the bush, supplemented by a ton of hay per head, and you eastern men would be astonished to see in what weather cattle will wander round and pick all their living up to and beyond Christmas. Dry cold does little harm to either man or beast, and if we do now and then report some poor fellow found frozen to death it is only because we don't want to hurt the feelings of his friends by telling the stark truth that he got drunk before he froze.

We are going on briskly in the way of elevator building and railroad construction, because, though rather discouraged at the shortness of this season's

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crop, we have full faith in the country, especially the soil, and are quite sure that the very next wet year we shall have a redundant crop. I shall have an opportunity by next month of seeing a few of our county fairs, and am sure I shall have a good report to make of the stock especially; we have really as good sires now here as the best of yours in Ontario. Granite City, Bounding Willow, and others I might name, including some Shires and thorough-breds among horses. We are rather less ambitious in cattle than we were a year or two ago, but we have still some capital Shorthorns, and make a very creditable dip into other breeds. Shorthorns are our favorite general purpose cattle. We have plenty of room anywhere for a full-sized beast, there is no risk of its getting twisted or crippled winding out and in among the stumps and rocks, as is the case with you in the first twenty years' experience of Ontario pioneering. If we do have a short crop now and then we don't need to wait half a life-time before we buy a gang plow, a spring tooth or disc harrow, and a self-binder. Your eastern manufacturers are at this moment busy building 1,000 press-drill seeders for our next spring's requirements, and with careful and deep cultivation and thorough seeding, we may rub along another year, and produce a paying crop even though we have another year of scant rainfall.

The Provincial Exhibition.

Measured by the attendance of visitors, the Provincial Exhibition held at London, Sept. 9th to 14th, was not a marked success; but in point of merit, in respect to the live stock exhibits, it deserves to pass into history as one of the best that has ever been held under the auspices of the Ontario Agricultural and Arts Association. Favored by weather and site, the various classes of live stock were well represented in point of numbers, while the average of quality was excellent. As other important exhibitions were going on at the same time, it is certainly a matter for congratulation on the part of the Londoners that they received so much attention from our live stock exhibitors. The exhibits in this department especially were by no means only local, for herds were brought from some distance, as their owners were firm in the assurance that here they would meet foemen worthy of their steel.

CATTLE.

The showing in this department, on the whole, certainly did honor to Ontario and her sister province, Quebec. The beefing breeds were well represented, as is generally the case at our Ontario shows. It was observable that the dairy breeds are gradually growing in strength and are now championed by more patrons than formerly, thus reflecting the trend of opinion among our farmers and stockmen in favor of the dairy.

SHORTHORNS.—For once, at any rate, the Provincial was favored with fine weather, and Phœbus shone out in his glory the whole week, so much so that while standing round the judging rings one was fain, during the intervals, to seek the grateful shade of the trees, with which the fair ground is here and there tastefully studded. Shorthorns were hardly as well-represented as we have seen on former years, although some good animals were present. Aged bulls drew out 7 entries. Stanley 8538 a dark roan, exhibited by Messrs. Russell, of Richmond Hill, was soon picked out as 1st; and going to the roan bull Victor Hugo Ingram, although some were inclined to have given the preference to Roan Prince=2733=, which was placed 3rd. Two-year-olds are invariably a small class and contained only 4 entries. Windsor, a red, bred by S. Campbell, of Kinnellar, taking 1st, Clear-the-Way=9922= a dark roan, in good condition, and, and 3rd to Mr. Crerar's red. Yearling bulls were certainly the most exciting class in the male sections, the competition between the first and second bulls being very close. The tug-of-war lay between Mr. Currie's Silver Star=10776=, which was and prize bull calf at the Industrial of last year, and the Bow Park roan bull Master Ingram, who was 3rd at the same show, and speculation was rife as to which would gain the day, the more so as it appeared the general opinion that the silver medal for the best Shorthorn bull of any

age would fall to the winner of this class. Silver Star seemed the greatest favorite with the spectators, Master Ingram although, perhaps, better in front being slightly light in the flanks and the judges finally decided in his favor, and subsequently awarded him the silver medal, as had been anticipated; 3rd going to Riverside Hero, bred by Thomas Russell. Bull calves as usual contained a large entry, and consequently afforded considerable work to the judges, who eventually placed Grey Mariner, a very thick, short-legged calf, 1st. Crown Jewel, a red calf of great substance, sired by Warrior (55173), and; Scottish Rose 2nd=11083=, a full brother to the silver medal yearling bull and a very stylish red calf, but a trifle high at the tail end, being placed 3rd. In aged cows all three prizes were awarded to imported cows, the well-known Lady Isabella=5256= was once more placed first, and afterwards gained the diploma for the best female of any age, her daughter, the white cow, Isabella II.=8283=, being second. She is a wonderfully good-fronted cow, although a capacious critic might perhaps wish her a little smoother at the tail. Third prize going to imported Roan Princess, bred by Mr. Tyler, of Newmore, Scotland. In three-year-olds Lady Oxford Waterloo 5th, who last year won the diploma, though not in the condition we last saw her, won 1st; and going to Mina Lenton, a beefy roan, and 3rd to the white cow, 11th Maid of Sylvan. Two-year-olds were a small class and contained only 4 entries, while yearlings, we thought, contained the best exhibit in the female classes. In this section two whites competed and furnished additional proof of the correctness of the statement that has frequently been made "that a white is seldom shown but succeeds in taking a place." In this instance the white heifer Vacuna 13th=14738=, a very even animal of great quality, sired by Prince Albert, took 1st; and going to Messrs. Russell's red Rosabel=16022=, and 3rd to the white heifer Silver Queen=16776=. Heifer calves brought out 9 competitors, and a minute inspection revealed the fact that the first two places lay between Messrs. Russell's (of Richmond Hill) two red calves. Outsiders favored Nonpareil's Victoria, the red daughter of Vice-Consul, last year's sweepstake bull at the Industrial, and eventually the judges so decided it. Royal Princess=16779=, a good red but hardly as even as her competitor, being placed 2nd, the roan Elvira 13th taking 3rd. Three herds competed, 1st going to the Bow Park herd, headed by the yearling bull Master Ingram; and to Messrs. Russell's, headed by Stanley=8538=, and 3rd to Messrs. Nicholson's, headed by Warrior=4122=. The judges were Messrs. R. Gibson, Delaware, and H. Thompson, of St. Marys.

Awards.—Bull, three years old and upwards—1st to J. & W. Russell, Richmond Hill, on Stanley=8538=; and to Thomas McKay, Rockwood, Ont., on Victor Hugo Ingram (vol. v.); 3rd to H. J. Davis, Woodstock, Ont., on Roan Prince=2733=. Bull, two years old—1st to J. & W. Russell on Windsor (imp.); and to I. Russell, Exeter, on Clear-the-Way=9922=; 3rd to J. Crerar, Shakespeare, on Prince Charlie. Bull, one year old—1st to John Currie, Everton, on Silver Star=10776=; and to T. Nelson & Sons, Bow Park, Bradford, on Master Ingram; 3rd to T. Russell on Riverside Hero. Bull calf, under one year old—1st to T. Russell on Gray Mancer; and to R. & S. Nicholson, Sylvan, on 7th Crown Jewel=11077=; 3rd to John Morgan & Sons on Crimson Star=11983=. Cow—1st and 2nd to T. Nelson & Sons on Lady Isabella=5256= and Isabella 2nd=8283=. 3rd to J. & W. Russell on Roan Princess (imp.). Cow, three years old—1st to T. Nelson & Sons on Lady Oxford Waterloo 5th; and to J. & W. Russell on Mina Lenton; 3rd to R. & S. Nicholson on 4th Leocore of Elmdale (vol. 5). Heifer, two years old—1st to T. Nelson & Sons on White Socks; and to J. Crerar; 3rd to H. Soell & Sons, Clinton, on Queen of Clinton=14478=. Heifer, one year old—1st to R. & S. Nicholson on Vacuna 13th=14738=; and to J. & W. Russell on Rose of Autumn 9th=10599=; 3rd to John Morgan & Sons on Silver Queen=16776=. Heifer calf, under one year—1st and 2nd to J. & W. Russell on Nonpareil Victoria and Royal Princess=16779=; 3rd to C. M. Simmons, Ivan, on Elvira 13th=16683=. Bull of any age—1st and silver medal to J. Currie, Everton. Female of any age—1st and diploma to T. Nelson & Sons. Herd prize—1st to T. Nelson & Sons, and to J. & W. Russell; 3rd to R. & S. Nicholson.

HERDFORDS.—Herefords were not as largely represented as we have sometimes seen, although the catalogue promised us a new competitor to the ranks in the herd of Mr. Judah, of Hillhurst, Que. Unfortunately for some reason Mr. Judah's herd was not present, and Messrs. Macle and Drew were likewise absent, so the competition was confined to the herds of Messrs. Cochran and Fleming. The judges appointed were Messrs. C. Barker, of Paris, I. Stock, of Watford, and P. Green, of Innerkip, but owing to the non-arrival of Mr. Stock the awards were made by the other two gentlemen. Only two aged bulls were led out, and Cassio, although perhaps hardly as smooth as he was a year ago, once more captured the red ticket, and afterwards the silver medal for the best Hereford bull of any age, his son Marshal Grove being placed 2nd. In two-year-olds Mr. Fleming's Lord Fenn was the sole exhibit, and was awarded 1st. Two yearlings competed, both owned by Mr. Fleming, and here the judges could not agree and an umpire was called in, who awarded 1st to Amethyst, a short-legged bull and well-filled out

in the thighs but a little spread of rib, and 2nd to Wilton Hillhurst, a level-topped bull but too high off the ground. Two bull calves were led out and again the services of the umpire were required, who decided upon Paul Wilton for 1st, and Sir Broady for 2nd. In aged cows Miss Broady, who has so often carried off the red ticket and diploma, had to give way to her stable companion Lily VI bred by Mr. Partridge, of Discord, England, and content herself with a 2nd. Yearlings were certainly the strongest class of females and the three winners were an exceedingly good lot, especially Mr. Cochran's Vanity III., sired by Cassio. She stands on short legs, is well-filled over the shoulders and behind the hooks. She lacks a little in size, but she is otherwise so good that she not only won 1st in her class, but also the diploma for the best Hereford female of any age, a prize which Mr. Cochran has several times previously contended for, and this year with success. Mr. Fleming was the sole competitor in heifer calves, 1st going to Lady Dot, a smooth, level calf; Barbara II. and Amelia II. being respectively 2nd and 3rd. The prizes for herds were a foregone conclusion. Mr. Cochran's herd, headed by Cassio, again taking 1st over Mr. Fleming's herd, headed by the yearling bull Amethyst.

Awards.—Bull, three years old and upwards—1st and 2nd to Hon. M. H. Cochran, Hillhurst, Que., on Cassio (11353) and Marshall Grove 16944. Bull, two years old—1st to F. A. Fleming, Weston, on Lord Fenn 29030. Bull, one year old—1st and 2nd to F. A. Fleming on Amethyst 36807 and Wilton Hillhurst (vol. x.). Calf, under one year—1st to Hon. M. H. Cochran on Paul Wilton vol. xi.; and to F. A. Fleming on Sir Broady 36825. Cow—1st and 2nd to F. A. Fleming on Lily 6th 2382 and Miss Broady 2382. Cow, three years old—1st to Hon. M. H. Cochran on Vanity 2nd 23121; and to F. A. Fleming on Miss Broady 2nd 26399. Heifer, two years old—1st and 2nd to Hon. M. H. Cochran on Eastern Empress 28860 and Geranium 32948; 3rd to F. A. Fleming on Annot 152027. Heifer, one year old—1st and 2nd to Hon. M. H. Cochran on Vanity 3rd vol. xi. and Young Queen 3rd vol. xi.; 3rd to F. A. Fleming on Lady Dawn 36815. Heifer calf, under one year—1st, and 3rd to F. A. Fleming on Lady Dot 36816, Barbara 2nd 36808, and Amelia 2nd 36806. Bull of any age—1st and silver medal to Hon. M. H. Cochran. Female of any age—1st and diploma to Hon. M. H. Cochran. Herd prize—1st to Hon. M. H. Cochran; and to F. A. Fleming.

ABERDEEN ANGUS.—As at the Provincial of last year, Hon. M. H. Cochran, of Hillhurst, was the sole exhibitor. The members of his herd here shown possessed that smoothness, toughness, and symmetry of form that only a "doddie" may attain to. They were in fine bloom, showing that they needed not the sharp spur of close competition to keep them well-formed. It is certainly to be deplored that the other breeders of these prime feeders do not realize the effect their absence produces on the opinions of those viewing the exhibits with the object of comparing the status of the breeds. With such a string as he had, headed by the well-known Lord Hillhurst 3990, Mr. Cochran's exhibit would have withstood the best of competition. It is needless to give the awards, for this herd made an almost clean sweep of all the prizes. In our JOURNAL of February last an engraving appeared in which it represented a number of those here exhibited.

GALLOWAYS.—These hardy and lusty rangers were out in very strong force this year. The exhibitors were Mr. Thomas McCrae, of Guelph, and Mr. Wm. Kough, of Owen Sound. On another page we give a full content from the pen of one of Scotland's best authorities on this breed, Mr. James Bigger, of Dalbeattie, who holds the important position of Examiner in Agriculture for the Highland Society of Scotland, so that we shall but append the prize list here.

Awards.—Bull, three years old and upwards—1st to William Kough on Claverhouse (450); and to Thomas McCrae. Bull, two years old—1st and 2nd to Thomas McCrae on Count Palatine (4508) and Cornawallith (4515). Bull, one year old—1st to Thomas McCrae on Glenearg 508; and to William Kough on General Gordon. Bull calf, under one year—1st to Thomas McCrae on Bruce (508); and to William Kough on The Baron 6117. Cow—1st to William Kough on Countess of Glenearg (9501); and to Thomas McCrae on Good Girl (7437). Cow, three years old—1st to Thomas McCrae on Victress 2nd of Closeburn (6549); and to William Kough on Mary 4th (3234). Heifer, two years old—1st to Thomas McCrae on Black Beauty 14th (10401); and to William Kough on Mary 5th (3600). Heifer, one year old—1st to William Kough on Miss Steele 5th (4218); and to Thomas McCrae on Christie 5007. Heifer calf, under one year—1st to Thomas McCrae on Rance 9th; and to William Kough on Countess of Glenearg 3rd (6116).

DEVONS.—Two well-known prize-winning herds, those of Mr. W. J. Rudd, of Eden Mills, Ont., and Mr. S. Harper, of Cobourg, Ont., were here in strong force, and a nice, even lot of animals they were, beef from beel to tip of ear. Mr. Rudd had seventeen head and all prime animals, and the same may be said of the baker's dozen that Mr. Harper brought to compete with him. The prizes were awarded as below.

Awards.—Bull, three years old and upwards—1st to S. Harper on Luther (937). Bull, two years old—1st to W. J. Rudd on Oude 947. and to S. Harper on Brigham (948). Bull, one year old—1st to W. J. Rudd on Nelson (957); and to S. Harper on Buffalo Jack (955). Bull calf, under one year—1st to S. Harper on Job (985); and to W. J. Rudd on Captain (984). Cow—1st

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to W. J. Rudd on Beauty [800]; and to S. Harper on Lucy [331]. Cow, three years old—1st to W. J. Rudd on Lady Graceful [946]; and to W. J. Rudd on Esmeralda [936]; 3rd to S. Harper on Maggie [938]. Heifer, two years old—1st to S. Harper on Susan [953]; and to W. J. Rudd on Rene [952]. Heifer, one year old—1st to W. J. Rudd on Ethel [967]; and to S. Harper on Fannie B. Heifer calf, under one year—1st to W. J. Rudd on Gem [886]; and to S. Harper on Lily [889]. Bull, any age—1st and silver medal to W. J. Rudd. Female, any age—1st and diploma to W. J. Rudd. Herd prize—1st to W. J. Rudd; and to S. Harper.

AYRSHIRES.—Of the dairy breeds the Ayrshires came out in greatest numbers, and a very strong class they made, showing that of late years they have been greatly extending their territory, which now runs far westward in our Province. Mr. Thomas Guy was perhaps the largest exhibitor in this class. His contingent was headed by General Grant—A 136—his stock bull. This animal was in fine fettle, and with his snugly-ribbed barrel of immense volume, clean and neat head, thick, broad loin and deep quarter, in conjunction with his pliant skin, met all the requirements of the true type wanted for a dairy bull. A youngster who is, in all likelihood, destined in coming years to succeed General Grant in his post of honor is a capital calf, Rifleman—593—bred by Mr. Guy. He is a calf of much quality and of great promise. Mr. A. Gerrard, of Hamilton, Ont., had a number from his herd, and they certainly made a very creditable collection. The plum of the lot was probably Royalty, a two year old bull of excellent constitution, with a soft though heavy skin, and neat head. Mr. Gerrard had an excellent lot of dairy cows in his selection, such as would do honor to their owner at the pail or in the show-ring. Messrs. W. M. & J. C. Smith, of Fairfield Plains, Ont., had fourteen head from their herd present, helping considerably to heighten the interest in the awards, to which end Mr. W. Stewart, jr., of Menie, Ont., M. Ballantyne, St. Marys, Ont., Kains Bros., of Bryan, Ont., and Nichol Bros., of Plattsburg, also contributed in no small degree. Mr. Stewart's aged bull, General Middleton—443—was a typical Ayrshire, and being so was a bull of many good parts, from a dairy standpoint, and only that he was in such good company as Mr. Guy's General Grant—A 136—and Mr. Gerrard's Cleveland—297—higher honors than he here received would have become him worthily. In Jeannie of Auchenbrain—129—the Kains Bros. have a superior dairy cow, with excellent milk vessels, teats of fair size, and deep roomy body. They have also a two year old bull with bright prospects. In their year old Oxford King—A 55—the Nichol Bros. have a grouty youngster that has not won all his honors yet. Messrs. M. Ballantyne were particularly strong in young bulls and heifers. Prime animals among the former were their vigorous two-year-old Lorne of the Lea—579—and their yearling Hanlan—458—.

Awards.—Bull, three years old and upwards—1st and silver medal to T. Guy on General Grant—A 136—; and to A. Gerrard on Cleveland—297—; 3rd to W. Stewart, jr., on General Middleton—443—; Bull, two years old—1st to A. Gerrard, Hamilton, on Royalty; and to M. Ballantyne on Lorne of the Lea—579—; 3rd to Kains Bros. on Glen—A 54—; Bull, one year old—1st to Nichol Bros. on Oxford King—A 55—; and to T. Guy on Columbus; 3rd to M. Ballantyne on Hanlan—458—; Bull calf, under one year—1st to T. Guy on Rifleman—593—; and to Kains Bros. on Elsmere—585—; 3rd to W. Stewart, jr., on Duke of Menie—581—; Cow—1st to T. Guy on Violet—763—; and to Kains Bros. on Jeannie of Auchenbrain—129—; 3rd to A. Gerrard on Nelly Mars—515—; Cow, three years old—1st to W. Stewart, jr., on Annie Laurie—1096—; and to A. Gerrard on Lady Gorham—573—; 3rd to T. Guy on Gerta 12th. Heifers, two years old—1st to Kains Bros. on Pansy—1192—; and to T. Guy on Daisy of Sydenham—A 173—; 3rd to A. Gerrard on Annie Mars and—284—; Heifer, one year old—1st to T. Guy, Oshawa, on Model 4th; and to M. Ballantyne on Nettie—922—; 3rd to A. Gerrard on Jenny—326—; Heifer calf, under one year—1st to T. Guy on Model 5th; and to T. Guy on Violet 3rd—1251—; 3rd to Nichol Bros. on Queen of Oxford—A 291—; Female, any age—1st and diploma to W. Stewart, jr. Herd prize—1st to Kains Bros.; and to T. Guy; 3rd to A. Gerrard.

JERSEYS.—From the great number of these general favorites throughout the country, one would naturally expect a very large showing, but such was not the case here. Mrs. E. M. Jones, of Brockville, Ont., was by far the largest exhibitor, and a superior string she had headed by the well-known Rioter's Pride 11694. This bull in his breeding and personal qualities is of the very best. He has a deep roomy barrel, of good head and long girth, and is besides the owner of a skin of the finest quality and a head and eye beyond criticism. A worthy son of Canada's John Bull 8388 is Canada's Sir George 18290, a two year old of extra quality and finish. In Silver Bell 4069, a three year old cow with a beautiful head, garrle like eyes and full barrel, Mrs. Jones has a prize of great value. A two year old with many dairy qualities, is Orange Delia 5671. This cow has a splendid appearance, with a good barrel and large udder running far forward. A pair of fawn colored young heifers, Charming, of St. Lambert, and Banshee, of St. Lambert, speak volumes for the stock-getting qualities of their sire Rioter's Pride 11694. Mr. Rock Bailey, of Union, Ont., who has but recently come forward as a Jersey breeder, certainly

makes a most excellent exhibit for such a new beginner. Royal Mike, of Oak Grove 23021, is his stock bull. He is a dark color, and in his front and hind quarters, barrel and skin, shows that he is destined to get prime dairy animals. A solid form of merit is St. Lambert's Beauty 41069; but the queen of Mr. Bailey's lot is a young heifer, Ethel, of Oak Grove 58351, that will, beyond a doubt, develop into a superior dairy cow. Other exhibitors were Messrs. A. T. Peterson, Benmiller, Ont., D. McCallum, St. Thomas, Ont., B. F. Queen, St. Thomas, Ont., and Geo. Hill, Delaware, Ont.

Awards.—Bull, three years old—1st to Mrs. E. M. Jones, on Rioter's Pride 11694. Bull, two years old—1st to Mrs. E. M. Jones, on Canada's Sir George 18290; and A. T. Peterson. Bull one year old—1st to Mrs. E. M. Jones on Signal of Belvidere; and to D. McCallum; third to R. Bailey on Royal Mike of Oak Grove 23021. Bull calf under one year—1st to Geo. Hill; and Mrs. E. M. Jones on Jonathan Stoke Pogis. Cow—1st to Mrs. E. M. Jones on Lulu Delle 37697; and to Mrs. E. M. Jones on Ella of St. Lambert's 23429; 3rd to Mrs. F. M. Jones on Miss Satanella 31544. Cow three years old—1st to Mrs. E. M. Jones on Silver Delle 40691; and D. F. Queen. Heifer, two years old—1st to Mrs. E. M. Jones on Orange Delia 5671; and to Mrs. E. M. Jones on Barbary of Dorva 44816, third to Mrs. E. M. Jones on Topsy of Malone 49478. Heifer, one year old—1st to Mrs. E. M. Jones on Charming of St. Lambert; and on Massena's Malone 49479, and 3rd on Catharine of St. Lambert. Heifer calf under one year—1st to Mrs. E. M. Jones on Banshee of St. Lambert; and to R. Bailey on Ethel of Oak Grove 58351, and 3rd on Rose of Oak Grove 58352. Bull of any age—1st and silver medal, Mrs. E. M. Jones. Female of any age—1st and diploma to Mrs. E. M. Jones. Herd prize—1st and to Mrs. E. M. Jones.

HOLSTEINS.—Though there was but two contestants in this class, the Smith Bros., of Churchville, Ont., and the Wyton Stock Breeders Association, Wyton, Ont., yet owing to the excellence of both exhibits the interest never waned. The former had eighteen head. In their two-year-old bull, Minks' Mercedes Baron 5676, a get of the famous Mercedes Prince 2150, these gentlemen have a dairy bull of the highest merit. He is a vigorous, sturdy bull yet of the prime quality. His head is of the Mercedes stamp, chest prominent, body deep and full, and quarter all that could be desired. A skin of a rich orange color and unctuous bears testimony to his value as a sire. Another superior bull, a yearling, was also in this lot, Harmonia's Mercedes Prince 9841, a bull of rich breeding, being sired by Mercedes Prince 2150, and out of an excellent imported cow, Harmonia 3994, also among the number here shown. She is a grand cow, having the true dairy form and qualities in every respect. Siepkje 120 was another cow of excellent breeding and performance (1891½ pounds of milk in 31 days as a three-year-old). Siepkje 3rd certainly attests to the value of Siepkje as a breeding cow, in which is intensified milk-giving qualities. Baroness Clothilde 11692, though but a heifer May, 1888, gives infallible signs in her outlines, constitution and quality of growing into a cow of rare milking powers. She has for a grand-dam the great Clothilde that gave 26,000 pounds of milk in a year. The Wyton Stock Breeders' Association had an excellent display, at the head of which was their stock bull Mooie of Hartog 3rd 408. He is a bull of much quality, as seen in his neat head, pliant though not thin hide, and silky hair. His body is voluminous, while his hind-quarter is wide and deep. Koonig Nicholas 531 was another bull of excellent merit, sired by Nicholas 184. A superior pair of bull calves, both of January and both sired by Sir James of Aaggie 1452 and Sir Knight of Aaggie 12505 and Prince Regent of Wyton 12506. They certainly do honor to their exhibitors, who were also their breeders. Fadetta and, a cow of great merit from a dairy point of view, sired by Sir James of Aaggie 1452 was also bred by the exhibitors.

Awards.—Bull, three years old and upwards—1st to Wyton Breeders' Ass'n on Moore of Hartog 3rd 408; and to Smith Bros. on Duke of Edgely 552; 3rd to Wyton Breeders' Ass'n on Koonig Nicholas 531. Bull, two years old—1st to Smith Bros. on Mink's Mercedes Baron 5676. Bull, one year old—1st to Smith Bros. on Harmonia's Mercedes Prince 9841. Bull calf, under one year—1st to Wyton Breeders' Association on Prince Regent of Wyton 12506, and 2nd on Sir Knight of Aaggie of Wyton 12505. Cow—1st to Smith Bros. on Siepkje 120, and 2nd on Cornelia Tenson 1877; 3rd to Wyton Breeders' Ass'n on Sjoerd 4th 302. Cow, three years old—1st to Smith Bros. on Belle of Orchardside 2nd 6256. Heifer, two years old—1st to Wyton Breeders' Ass'n on Fadetta 2nd, and to Smith Bros. on Siepkje 4th 10349. Heifer, one year old—1st to Smith Bros. on Baroness Clothilde 11692; and to Wyton Breeders' Ass'n on Gypsy Queen Thini's Daughter 11131. Heifer calf, under one year—1st to Smith Bros. on Lillie Tenson, and to Wyton Breeders' Ass'n on Fadetta 3rd 15591. Bull of any age—1st and silver medal to Smith Bros. Female, any age—1st and diploma to Smith Bros. Herd prize—1st to Smith Bros.; and to Wyton Breeders' Association.

GRADE AND FAT CATTLE.—In this class though the number may not have been as large as that of former years, yet the quality was good. Mr. John Morgan & Sons, Kerwood, as customary, had a capital lot of grades. Other exhibitors of grade stock were Messrs. James Atkinson, York, Ont.; R. Whetter, London, Ont.; James Oke, Alvinston, Ont.; Mary Ann Luckhurst,

London East, Ont.; and J. Curry, Everton, Ont. Of fat cattle, Messrs. Weir & Weir, St. Marys, Ont.; R. & S. Nicholson, Syblan, Ont.; H. J. Davis, Woodstock, Ont.; and James Oke, Alvinston, Ont., were the principal exhibitors.

Awards.—**GRADE CATTLE:** Grade cow—1st to John Morgan & Sons, and to James Oke; 3rd to J. Atkinson. Cow, three years old—1st to James Oke; and to J. Atkinson; 3rd to John Morgan & Sons. Heifer, two years old—1st to J. Atkinson, York, Ont.; and to R. Whetter; 3rd to Mary Ann Luckhurst. Heifer, one year old—1st to James Oke; and to John Morgan & Sons; 3rd to J. Atkinson. Heifer calf, under one year—1st to J. Curry; and to John Morgan & Sons; 3rd to James Oke. Four females of any age—1st and silver medal to James Oke. **FAT CATTLE:** Ox or steer, three years old and under four—1st and 2nd to Weir & Weir. Ox or steer, two years old and under three—1st to James Oke; and to Weir & Weir. Cow, three years old and over—1st to James Oke. Heifer, under three years—1st to R. & S. Nicholson. Steer calf, one year and under—1st and 2nd to James Oke; 3rd to H. J. Davis.

HORSES

Being the focus of a district that pays much attention to the raising of horses, especially of the lighter classes, it is not surprising to find that in this department the exhibit was all that could be desired. It is utterly impossible, under the conditions that exist at such an exhibition as this, to give a complete and exhaustive report of all the exhibits, it only lying within the power of the writer to give a general review of the whole.

CLYDESDALES.—Messrs. R. Blith & Co., of Bowmanville, had, as usual, an excellent selection from their stables, mostly imports of this year. Sir Maurice [1126] (4721), a get of the famous Lord Erskine (1744), was undoubtedly the chief of the collection. He is a taking horse of good quality, smooth, even, and thick, with a clean look about his excellent feet and pasterns. His frame is strongly knit, and he carries himself with style and vigor. In Sir Walter (1131), a June foal of 1886, Mr. Blith has another especially fine stallion. He is a low-set, muscular horse, extra sturdy-looking and fine in quality. Eastfield Style [1128], also from these stables, is a capital three-year-old, sired by Ghillie Callum (5629). Though but a foal of 1887 Eastfield Chief [1129], of Prince of Wales blood through his sire St. Lawrence, is a robust stallion, with abundance of bone and strong muscular powers. Mr. Blith only had one filly in his collection, Maria [979], and she was extra neat, well-turned in all her parts, with a breadth of beam that would fill the eye of the most fastidious breeder. Messrs. D. & O. Sorby, of Guelph, Ont., determined to improve, if possible, on their past excellent record, brought over this year from the mother country a number of superior stallions and females, and the choice of these were at the Provincial. A worthy son of a worthy sire is Bold Boy [1149] (4257), foaled May, 1884. He is a get of the famous Lord Erskine, out of Lalla Rookh (3757) by General (323). He is a horse of substance, with clean bone and strong muscles. His barrel is snugly ribbed, and his quarter well clothed with muscle. In yearling colts and fillies Messrs. Sorby were strong, both in numbers and quality. Homeward Bound [1141] is a yearling of excellent finish, being all that could be desired in respect to quality. The Granite [1148], another colt of 1888, was sired by Granite City [709], one of Mr. Blith's importations of a few years ago. He certainly is an honor to his worthy progenitor. A prime lot of fillies are Evening Star [994], Louise [996], tracing in a few removes to the great Macgregor [1487], and Sunrise [995], a get of the well-bred McCammon (3818). Mr. Jos. Vance, of New Hamburg, Ont., materially aided in making the contest for supremacy in aged stallions a matter of interest through his five-year-old stallion Wigton Lad [532] (5441). Wigton Lad is all horse from heel to tip of ear. His quality is superior and his excellent build enables him to move with boldness, style and precision, and when his owner has hold of the halter-strap he displays his attractions to advantage. Waterside Farmer [1109], a dark brown son of Duchal (3737), is another from these stables. He is a heavy two-year-old of very strong parts, and of excellent finish in legs and pasterns. Colt's Stamp [1108] and Whithorn Prince [1110], a get of Prince Edward (1254), two yearlings, completed the list of Mr. Vance's exhibit. They are so excellently put together, and are just the material to produce worthy stock-getters. In our last issue for September we have thoroughly described this stable, and on the first page of that number appears an excellent engraving of most of these horses. Robert McEwen, of Byron, Ont., showed a stallion of merit in the aged class, viz., The Times [973], and he is also a horse of good breeding, having been sired by the well-known Good Times (1154). Mr. James Henderson, of Bolton, Ont., had a get of the famous Darnley (222) here. Lord Wellington [535] (1279) is the name. He is out of Larbrax-Ibbie (2420) by Young Conqueror (957), from which it may be seen he is a horse of first-class breeding, while in respect to personal merit he wants but little. Messrs. Charlton & Oliver, of Dun-

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crieff, Ont., had a well-bred horse of good personal qualities in Good Kind (1133) (2836), from Good Hope (1679). St. Regulus (1312) (6265) was another of theirs. He was sired by Garnet Cross (1662), dam St. Mary (4041) by St. Lawrence (3220), and he reflects his breeding in his quality and build. A solid, chunky three-year-old stallion was shown by P. Ryder, of Lucan, got by Monteith (3014). Another, shown by this gentleman, of good finish and substance was Brian Bough (1142), a get of Gillie Callum (3622), dam Bessie (1518) by Lochfergus (1730). Messrs. John McMillan & Sons, of Constance, Ont., exhibited a pair of two-year-old stallions, Keirside (1145) (6872), a strong boned and muscled stallion, a get of New Hope (3029) out of Keir Peggy IV 3639, and another, Master King, a stout bay, sired by The Master King imp. (792) (4753). C. E. Mason, Brucefield, Ont. had on exhibition a nice dark brown two-year-old stallion of strong frame, with full thighs and good quality. Messrs. Prouse and Williamson were also exhibitors of Clydesdales, and among their lot could reckon some good animals. Mr. Hugh Thomson, of St. Marys, had an especially promising two-year-old in Andrew Lammie (1141) (6433), sired by McCammon (3818), dam Topsy (509) by the much-prized horse Topman (806).

Awards.—Heavy draught stallion, four years and upwards—1st to R. Beith & Co. on Sir Maurice (1126) (4721), and to D. & O. Sorby on Bold Boy (1149) (4257); 3rd to J. Vance on Wigton Lad (552) (5441). Stallion, three years old—1st and 2nd to R. Beith & Co. on Sir Walter (1131) and Eastfield Style (1128) (6724); 3rd to P. Ryder on Brian Bough (1142) (5505). Stallion, two years old—1st to R. Beith & Co. on Eastfield Chief; and to Hugh Thomson on Andrew Lammie (1141) (6433); 3rd to J. McMillan & Sons on Keirside (1145) (6872). Yearling colt—1st and 2nd to D. & O. Sorby on Homeward Bound (1147) and The Granite (1148); 3rd to A. B. Scott & Son, Vanneck, Ont. on The Red Cross Knight (8497). Clydesdale or Shire filly, three years old—1st to D. & O. Sorby on Evening Star (994); and to H. Snell & Sons, Clinton, on Gipsy Queen (990). Clyde or Shire filly, two years old—1st to E. W. & G. Charlton, Duncreeff, on Queen of Maplewood Farm (439); and to D. & O. Sorby on Sonnie (996); 3rd to H. Snell & Sons on Jess of Airdie (989). Clyde or Shire yearling filly—1st to R. Beith & Co. on Maria (979); and to D. & O. Sorby; 3rd to A. B. Scott & Son on Primrose (661). Clyde or Shire brood mare—1st to John Oliver, Duncreeff, on Lady McGregor (374); and to A. B. Scott & Son on Kate II. of Congeith (225); 3rd to Prouse & Williamson on Coyton Maid (794). Clyde or Shire foal of 1889—1st to A. B. Scott & Son; and to J. McMillan & Sons. Clydesdale stallion, any age—1st and silver medal to R. Beith & Co.

Awards in heavy draught horses, cross bred, recorded in Canadian draught horse stud-book, or those under five crosses in draught horse record. Stallion, three years and upwards—1st to J. Gunning, Frome, Ont.; and to A. J. McCarthy, Ingersoll. Stallion, two years old and under—1st to J. Sims, Kintore; 2nd to T. McMichael, Seaford; 3rd to F. Cook, Granton. Stallion, one year old—1st to W. A. Cunningham, Carlow; and to H. Snell & Sons, Clinton; 3rd to T. McMichael. Filly, three years old—1st to J. Sims. Filly, two years old—1st to R. Pile, Parkhill; and to E. Armstrong, Embro. Filly, one year old—1st to D. McPherson, Thamesford. Span of heavy draught horses (geldings or mares), 1st to J. S. A. McFarlane Littlewood; and to A. Hughes, Kerwood.

ENGLISH SHIRES.—Messrs. Ormsby & Chapman, of Springfield-on-the-Credit, were the principal exhibitors in this class. They had a trio of heavy, stout stallions, all in excellent trim, though but lately imported. Leake Royal George (87) (7561) is a muscular colt with plenty of bone. Another of theirs, Leake Rover (85) (7560) was a strongly put together colt of good growth. Messrs. H. George & Sons showed in Lennox (103) (7574), a bay stallion a foal of 1887, a horse of prime qualities, of heavy, massive frame, and the best of muscles. Man o' War (153), a ponderous stallion of six years, was shown by Thomas Dunkin & Sons, of River View, Ont. He is a horse of immense substance, strong framed and heavy muscled.

Awards.—Stallion, four years and upwards—1st to Thomas Dunkin & Sons on Man o' War (153). Stallion, two years old—1st to H. George & Sons on Lennox (103) (7574); and 3rd to Ormsby & Chapman on Leake Royal George (87) (7561) and Leake Rover (85) (7560). Stallion, any age—1st and silver medal to T. Dunkin & Sons.

PERCHERONS.—This class was very poorly represented in numbers, there being but few exhibitors. The principal exhibitors were J. W. Pringle, Ayr Ont.; P. Whelihan, St. Marys, Ont.; D. E. Adams, Oxford Centre Ont.; M. Campbell, Iona, Ont.; D. C. Dorman, Byron, Ont. and George Green of Goderich. The latter had a nice weighty block of a three year-old stallion, got by Dunham's famous imported Percheron Brilliant 1271 (755). Mr. P. Whelihan had a fine lot and succeeded in capturing most of the prizes.

Awards.—Stallion, three years old and upwards—1st to D. C. Dorman; and to J. W. Pringle; 3rd to G. Green. Stallion, two years old—1st to D. E. Adams. Yearling colt—1st to P. Whelihan; and to M. Campbell. Filly, three years old—1st to D. E. Adams. Filly, two years old—1st to P. Whelihan. Filly, one year old—1st to D. E. Adams. Brood mare—1st to P. Whelihan; and to D. E. Adams. Foal of 1889—1st to P. Whelihan; and to D. E. Adams. Stallion, any age—1st and silver medal to D. C. Dorman.

SUFFOLK PUSCH.—In this class, also, there were but few contestants. Messrs. Jos. Beck, Thorndale Ont. A. & J. W. Salmon, Thorndale, Ont. and A. J. Clinton Kerwood, Ont.,

were the only exhibitors. The former had a grand brood mare in Vanny 1630, sired by Cup Bearer 3rd 566. She is deep bodied, square quartered, and is extra well-developed in all her parts. Messrs. A. & J. W. Salmon had a low-set fine year-old, Invader 1437, here from their stables. He has a great breadth of loin and back, being extra strong in his coupling.

Awards.—Stallion, three years old and upwards—1st to A. & J. W. Salmon on Invader 1439; and to A. J. Clinton. Brood mare—1st and 2nd to Jos. Beck on Patch 1436 and Vanny 1630. Filly, three years old—1st to A. & J. W. Salmon. Filly, two years old and under—1st to J. Beck. Colt of 1889—1st to A. & J. W. Salmon on Emperor; and to J. Beck on Princess. Stallion, any age—1st and silver medal to A. & J. Salmon.

TIMOTHY GRUBBES.—Though the number of entries were not very many, yet the excellence of those that did compete in this class was of a high order. Mr. T. D. Hodgins, of London, Ont., had quite a string, headed by his taking four year-old stallion Albert, that won the high honor of securing first in his class, which was one not without good competition. Mr. Hodgins was especially strong in youngsters. Messrs. J. Dymont & Sons, of Orkney, Ont. had his stables well-represented at, and made an excellent show of fillies. Inspector, (1879), a stallion of good breeding and excellent merit, was shown by Mr. R. McEwen, of Byron. He is a get of Berlin, and is a fine rangy stallion, with a fine quality of bone. Mr. W. P. McClure, V.S., of Woodstock, Ont., exhibited in the aged stallion class an active stallion of good quality, and Messrs. Frank & Sons, of The Grange, Ont., showed a two-year-old stallion, F-rufil, a promising son of Old Terror.

Awards.—Stallion, four years old and upwards—1st to T. D. Hodgins on Albert, and to R. McEwen on Inspector; 3rd to W. P. McClure, V.S., on Leonces. Stallion, three years old—1st to A. Frank & Sons on Fearful. Yearling colt—1st to J. Brody, Glanworth; and to J. Dymont on Gladstone. Filly, three years old—1st to J. Dymont on Flip Flip. Filly, two years old—1st to J. Dymont on Allie D. Yearling filly—1st, and 3rd to J. Dymont on Arrow, Annie D. and Volga. Brood mare—1st and 2nd to T. D. Hodgins on Lady Lucy, and Curtilina; 3rd to J. Dymont on Aunt Alice. Foal of 1889—1st to T. D. Hodgins; and J. Brody. Thoroughbred stallion, any age—1st and diploma to T. D. Hodgins, London. Female, any age—1st and diploma to J. Dymont, Orkney.

ROADSTERS AND CARRIAGE HORSES.—The showing here was certainly very creditable, and it reflects the fact that the neighborhood of London is one of our best light horse districts. Not only were the exhibitors numerous, but the entries in the various classes were as many as the most sanguine could hope for, consequently the competition was of the keenest, and the animal that got to the top had to possess merits of the rarest order. It would be practically impossible to notice the various exhibits, their number being so large, so that we shall but append the prizes won.

Awards for Roadsters.—Stallion, four years old and upwards—1st to W. L. Odell, Odell; and to G. V. Delong, Lynedoch; 3rd to C. Darling, Ridgetown. Stallion, three years old—1st to J. Dymont, Orkney; and to J. Coughlin, Glanworth; 3rd to J. McKillop, West Lorne. Stallion, two years old—1st to Paul & Charlton, Coldstream; and to G. V. Delong, Lynedoch; 3rd to T. R. ser, Denfield. Yearling colt—1st to G. A. Routledge, Lambeth; and to J. A. Cuddy, Adelaide; 3rd to C. Heven, Lord m. Three-year-old filly or gelding—1st to R. Clyde, St. Marys; and to R. Young, Crumlin; 3rd to R. J. Wood, London. Two-year-old filly or gelding—1st to R. M. Wilson, Delhi; and to T. Abraham, Norwich; 3rd to J. Whitten, Thamesford. Yearling filly or gelding—1st to E. & J. Tracey, Curries Crossing; and to A. Inglesby, Ingersoll; 3rd to D. Carroll, Orkney. Brood mare—1st to G. Knight, Mandamin; and to A. Inglesby, Ingersoll; 3rd to J. McCartney, Thamesford. Foal of 1889—1st to G. H. McLeod, Thamesford; and to G. Knight, Mandamin. Pair matched horses in harness, under 15½ hands—1st to J. McCartney, Thamesford; and to S. T. Thompson, Innerkip; 3rd to N. T. Buchanan, Ingersoll. Single horse, under 15½ hands—1st to R. M. Wilson, Delhi; and to L. D. Swartout, Norwich; 3rd to J. Conn, Alvington. Pair of ponies in harness, 12 hands and under—1st to B. F. Queen, St. Thomas. Pony in harness, 12 hands and under—1st to Capt. S. A. Denison, London; and to O'Neill & Ferguson, London. Pony in harness, over 12 hands up to 14 hands—1st to C. G. Cruikshank, London. Roadster stallion, any age—1st and diploma to H. McLurg, Falkirk.

Awards to Carriage Horses.—Stallion, four years old and upwards—1st to Cameron & Dewar, Nairn; and to F. Row, Belmont; 3rd to P. Cavin & Sons, North Bruce. Stallion, three years old—1st to T. D. Hodgins, London; and to C. Burill, Holbrook; 3rd to W. Hughes, The Grange. Stallion, two years old—1st to Cavin & Johnson, Norwich; and to W. B. McLean, Hensall; 3rd to J. O'Neill, Birt. Yearling colt—1st to W. Graham, Glenoe; and to R. M. Wilson, Delhi; 3rd to W. Hodson, Lobo. Filly or gelding, three years old—1st to R. Embury, Salford; and to W. K. Newton, Salford; 3rd to E. Monk, Springfield. Filly or gelding, two years old—1st to E. Monk, Springfield; and to M. J. Campbell, Komoka; 3rd to R. M. Wilson, Delhi. Yearling filly or gelding—1st to F. Lewis, London; and to D. Flood, Elginfield; 3rd to R. A. Oliver, Ingersoll. Brood mare—1st to R. M. Wilson, Delhi; and to W. Graham, Glenoe; 3rd to T. Graham, Norwich. Foal of 1889—1st to P. Cavin & Sons, North Bruce; and to D. Flood, Elginfield. Pair matched carriage horses in harness, 16½ hands and over—1st to R. M. Wilson, Delhi; and to J. Gibbon, Strathroy; 3rd to A. Inglesby, Ingersoll. Pair matched carriage boxes, 15½ hands and under 16½, in harness—1st to T. D. Hodgins, London; and to A. D. Stewart, Ailsa Craig; 3rd to L. J. W. Shipley, Denfield. Single carriage horse, in harness—1st to L. D. Swartout, Norwich; and to J. McCartney.

Thamesford; 3rd to L. G. Davey, London. Carriage stallion, any age—1st and diploma to Cameron & Dewar, Nairn. Saddle horse—1st to H. SchaT, Birt; and to I. Meredith, London; 3rd to J. Fulcher, London.

AGRICULTURAL HORSES.—The competition in this class was fairly good, and quality much the same as customary. The prize-winners we give below.

Awards.—Filly or gelding, three years old—1st to F. H. Neil, Lucan; and to Prouse & Williamson, Ingersoll. Filly or gelding, two years old—1st to E. & J. Tracey, Curries Crossing; and to B. Pile, Parkhill; 3rd to J. Franks, Harrietsville. Yearling filly or gelding—1st to D. McPherson, Thamesford; and to E. & J. Tracey, Curries Crossing; 3rd to Prouse & Williamson, Ingersoll. Brood mare—1st to J. Sims, Kintore; and to J. Franks, Harrietsville; 3rd to F. Monk, Springfield. Foal of 1889—1st to A. Hughes, Kerwood; and to Prouse & Williamson; 3rd to J. Henderson, Belton. Matched farm team (geldings or mares), in harness—1st to A. Sutherland, Breinar; and to Prouse & Williamson; 3rd to A. McLean, North Bruce.

SHEEP.

Though it cannot be said that the number of flocks represented was greater than usual, yet we think we are safe in saying that in point of quality those present have rarely, if ever, been equalled at our provincial shows.

COTSWOLDS.—The Messrs. J. G. Snell & Bros., of Edmonton, had one excellent lot, numbering twenty head, of this year's importation. Messrs. Laidlaw & Jackson, of Milton Grove, Ont. were also in attendance with their usual good showing. Other exhibitors that came in for shares in the awarded honors were Messrs. R. Morgan, Kerwood; and Mr. McCarthy, of Lobo.

Awards.—Pam, two shears and over—1st to J. G. Snell & Bros.; and to R. Morgan; 3rd to M. McCarthy. Shearling ram—1st to J. G. Snell & Bros.; and to Laidlaw & Jackson; 3rd to R. Morgan. Ram lamb—1st, 2nd and 3rd to J. G. Snell & Bros. Ewes, two shears and over—1st and 2nd to J. G. Snell & Bros.; 3rd to Laidlaw & Jackson. Shearling ewe—1st, 2nd and 3rd to J. G. Snell & Bros. Ewe lamb—1st, 2nd and 3rd to J. G. Snell & Bros. Pen of imported Cotswolds—Silver medal to J. G. Snell & Bros. Pen of Canadian-bred Cotswolds—Silver medal to R. Morgan.

LEICESTERS.—This class was very strong as is generally the case. The contestants were Messrs. Wm. Whitelaw, of Guelph, with 18 head; H. Snell & Sons, Clinton, Ont., with a similar number, of which 6 were but recently imported; D. Harvey, of West McGillivray, with a like contingent; J. Kelly, of Shakespeare, with a flock of 14 head; and Nibhol Bros., of Plattsville, Ont.

Awards.—Ram, two shears and over—1st to D. Harvey, and to H. Snell & Sons; 3rd to Wm. Whitelaw. Shearling ram—1st and 2nd to J. Kelly, jr., and to Wm. Whitelaw. Ram lamb—1st to Nichol Bros., and to Wm. Whitelaw; 3rd to D. Harvey. Ewes, two shears and over—1st and 2nd to J. Kelly, jr.; 3rd to D. Harvey. Shearling ewe—1st and 2nd to J. Kelly, jr.; 3rd to Nichol Bros. Ewe lamb—1st, 2nd and 3rd to J. Kelly, jr. Pen of Canadian-bred Leicesters—Silver medal to J. Kelly, jr.

LINCOLNS.—The champions of these heavy fleece and mutton producers were Messrs. Wm. Oliver, Avonbank, Ont.; Wm. Walker, Ilderton, Ont.; E. Parkinson, Eramosa, Ont.; and R. W. Stevens, Lambeth, Ont.

Awards.—Ram, two shears and over—1st to Wm. Oliver; and to E. Parkinson; 3rd to Wm. Walker. Shearling ram—1st to Wm. Walker; and to R. W. Stevens; 3rd to D. Parkinson. Ram lamb—1st to R. W. Stevens; and to Wm. Walker; 3rd to Wm. Oliver. Ewe, two shears and over—1st to Wm. Oliver; and 2nd and 3rd to Wm. Walker. Shearling ewe—1st to Wm. Oliver; and to Wm. Walker; 3rd to E. Parkinson. Ewe lamb—1st and 3rd to Wm. Oliver; and to Wm. Walker. Pen of imported Lincolns—Silver medal to Wm. Walker.

OXFORD DOWNS. The principal exhibitors in this class were Messrs. Smith Evans, of Gourock, Ont.; Peter Arkell, Teeswater, Ont.; J. Tolton Walkerton, and G. T. Harcourt, St. Annes, Ont. This class was strong in prime animals, and the prizes were certainly won only on superior animals. In this number of our JOURNAL a trio from the silver medal herd appears on our front page. From this may be gleaned something of the quality of the exhibit in this class.

Awards.—Ram, two shears and over—1st to Smith Evans; and to G. T. Harcourt. Shearling ram—1st to Smith Evans; and to J. Tolton. Ram lamb—1st to Smith Evans; and to Peter Arkell. Ewes, two shears and over—1st to Smith Evans; and to J. Tolton. Shearling ewe—1st and 2nd to P. Arkell. Ewe lamb—1st to Smith Evans; and to P. Arkell. Pen of Oxford Downs—Silver medal to Smith Evans.

SHROPSHIRE.—Messrs. John Campbell, Woodville, Ont., Richard Gibson, Delaware, Ont. W. H. Beattie, Wilton Grove, Ont., and J. & J. Smith, Branford, Ont., showed some excellent animals of this breed. An animal that attracted much attention even among such good company was Mr. Campbell's imported ram, Royal Patron, which his present owner selected, after being given the choice of fifty, from the flock of Mr. G. Evans, of Uffington, England. We notice that at a recent sale this latter gentleman sold over forty of his flock at an average of £30, and that a half brother of Royal Patron sold for 120 guineas.

Awards.—Shropshire ram, two shears and over—1st to J. Campbell, jr. and to W. H. Beattie. Shearling ram—1st and 2nd to J. Campbell, jr.; 3rd to R. Gibson. Ram lamb—1st, and 2nd to J. Campbell, jr. Ewe, two shears and over—1st

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and and to J. Campbell, jr.; 3rd to W. H. Beattie. Shearling ewe—1st, and 3rd to J. Campbell, jr. Ewe lamb—1st and 2nd to J. Campbell, jr.; 3rd to J. J. Smith. Pen of Shropshires—Silver medal to J. Campbell, jr.

SOUTHDOWNS.—Messrs. John Jackson & Sons, Abingdon, were large exhibitors, as usual, in this class. Messrs. A. Telfer & Sons were also out with a choice selection of eight head from their flock. Messrs. D. H. Dale, of Glendale, T. C. Douglas, of Galt, and George Baker, of Simcoe, also contributed materially to the excellence of the showing.

Awards.—Rams, two shears and over—1st and 2nd to J. Jackson & Sons; 3rd to D. H. Dale. Shearling ram—1st to J. Jackson & Sons; 2nd to A. Telfer & Sons; 3rd to T. C. Douglas. Ram lamb—1st and 3rd to J. Jackson & Sons; 2nd to A. Telfer & Sons. Ewe, two shears and over—1st to J. Jackson & Sons; 2nd to George Baker. Shearling ewe—1st, and 3rd to J. Jackson & Sons. Pen of imported Southdowns—Silver medal to J. Jackson & Sons. Pen of Canadian bred Southdowns—Silver medal to J. Jackson & Sons.

MERINOS.—The only exhibitors in this class were Messrs. Rock Bailey, of Huron, Ont., and W. M. & J. C. Smith, Fairfield Plains, Ont.

Awards.—Merino ram, two shears and over—1st to R. Bailey, and 3rd to W. M. & J. C. Smith. Shearling ram—1st and 2nd to R. Bailey; 3rd to W. M. & J. C. Smith. Ram lamb—1st and 2nd to R. Bailey; 3rd to W. M. & J. C. Smith. Ewe, two shears and over—1st and 2nd to R. Bailey, 3rd to W. M. & J. C. Smith. Shearling ewe—1st, and 3rd to R. Bailey. Ewe lamb—1st, and 3rd to W. M. & J. C. Smith. Pen of Merinos—Silver medal to R. Bailey.

FAT SHEEP.—Those that won honors in this department had excellent animals indeed, for the competition was keen and the entries numerous.

Awards.—Fat wether—1st, and 3rd, J. Rutherford, Roseville. Fat ewe—1st to Wm. Oliver, Avonbank; and to Wm. E. Wright, Glanworth; 3rd to J. Campbell, Woodville. **Special Prize.**—The beautiful silver water pitcher offered by Mr. John S. Pearce & Co., of London, for best general purpose flock of sheep was won by Messrs. J. G. Snell & Bro. with a election from their Cotswold flock.

SWINE.

The numbers in this class shows a great increase on those of former years. Not only was there a good rally in numbers, but the variety in respect to breeds was a noticeable feature. The increased strength of the swine exhibit clearly shows that as a domestic animal of the farm the pig is becoming more and more important each day.

BERKSHIRES.—Though not represented very well in number as far as the exhibitors were concerned, yet in regard to quality it is rare indeed that such a fine lot of pigs come together as those of Messrs. J. G. Snell & Bro., of Edmonton; Geo. Green, of Fairview; C. M. Simmons, of Ivan; H. J. Davis, of Woodstock; and H. George & Sons, of Crampton. Messrs. Snell & Bro. had an extra fine lot of imported animals, twenty-four head in all. They were the admiration of all onlookers. Geo. Green had an especially fine yearling boar. Oh! what a stretcher was the exclamation of a bystander viewing this prodigy of the swine kind.

Awards.—Boar, two years and upwards—1st and 2nd to J. G. Snell & Bro.; 3rd to Geo. Green. Yearling boar—1st to Geo. Green; 2nd and 3rd to J. G. Snell & Bro. Boar over six months and under twelve—1st to J. G. Snell & Bro.; 2nd to Geo. Green; 3rd to C. M. Simmons. Boar under six months—1st and 3rd to J. G. Snell & Bro.; 2nd to Geo. Green. Boar of any age—Diploma to J. G. Snell & Bro. Sow, two years and upwards—1st and 2nd to J. G. Snell & Bro.; 3rd to Geo. Green. Yearling sow—1st and 2nd to J. G. Snell & Bro.; 3rd to Geo. Green. Sow under six months—1st to J. G. Snell & Bro.; 2nd and 3rd to Geo. Green. Sow, any age—Diploma to J. G. Snell & Bro. Boar and three sows imported—Silver medal to J. G. Snell & Bro. Boar and three sows, Canadian bred—Silver medal to J. G. Snell & Bro.

SUFFOLKS.—These economical feeders were present in goodly numbers. J. Featherstone, of Springfield-on-the-Credit, was probably the largest exhibitor, having in all twenty head. E. D. George, of Putman, followed close after with a lot numbering nineteen head, while H. George & Sons, Crampton, had twelve head, R. Dorsey & Sons, of Summerville, also a full dozen, W. H. Reid, of Leckton, P. O., a lot made up of half that number.

Awards.—Boar, two years and upwards—1st to R. Dorsey, 2nd and 3rd to J. Featherstone. Yearling boar—1st to E. D. George; 2nd to J. Featherstone; 3rd to W. H. Reid. Boar, over six months and under twelve—1st to R. Dorsey & Sons; 2nd to J. Featherstone; 3rd to H. George & Sons. Boar, under six months—1st, and 3rd to R. Dorsey & Sons. Boar, any age—1st to R. Dorsey & Sons. Sow, over two years—1st and 3rd to J. Featherstone; 2nd to R. Dorsey & Sons. Yearling sow—1st to R. Dorsey & Sons; 2nd to H. George & Sons; 3rd to E. D. George. Sow, over six months and under twelve—1st to J. Featherstone; 2nd to W. H. Reid. Sow, under six months—1st to W. H. Reid, 2nd and 3rd to R. Dorsey & Sons. Sow, any age—1st to R. Dorsey & Sons. Boar and three sows of any age, imported—Silver medal to R. Dorsey & Sons. Boar and three sows any age, Canadian bred—Silver medal to J. Featherstone.

POLAND CHINA.—Messrs. R. Dorsey & Sons, of Summerville, were here also large exhibitors. Messrs. W. M. & J. C. Smith, of Fairfield Plains, had a good showing of thirteen head, while Daniel Decourcy, of Bonholm, also added considerably to the

quality of the exhibit with his lot. Another exhibitor was J. A. Gould, of Woodstock, with a number of capital animals.

Awards.—Boar, two years and over—1st and 2nd to Messrs. Smith. Boar, one year—1st to R. Dorsey & Sons; 2nd to Messrs. Smith. Boar, over six months and under twelve—1st to Messrs. Smith, and to J. A. Gould. Boar, under six months—1st and 2nd to Messrs. Smith. Boar, any age—1st to R. Dorsey & Sons. Sow, two years and upwards—1st to Messrs. Smith; 2nd to R. Dorsey & Sons. Yearling sow—1st to R. Dorsey & Sons; 2nd to Messrs. Smith. Sow, over six months and under twelve—1st and 2nd to Messrs. Smith. Sow, under six months—1st to D. Decourcy; 2nd to Messrs. Smith. Sow, any age—Diploma to Messrs. Smith. Boar and three sows—Silver medal to Messrs. Smith.

ESSEX.—Mr. J. Featherstone, of Springfield-on-the-Credit, had a grand lot of these—fifteen head. They were a uniform lot, of excellent quality. Mr. James Main, of Boyne, Ont., exhibited a number of animals very creditable to their owner.

Awards.—Boar, two years and upwards—1st and 2nd to J. Featherstone. Boar, over one year and under two—1st and 2nd to J. Featherstone. Boar, over six months and under twelve—1st and 2nd to J. Featherstone. Boar, under six months—1st to James Main; 2nd to James Featherstone. Boar, any age—Diploma to J. Featherstone. Sow, over two years—1st and 2nd to J. Featherstone. Yearling sow—1st to James Main; 2nd to J. Featherstone. Sow, over six months and under twelve months—1st and 2nd to J. Featherstone. Sow, under six months—1st to J. Featherstone, 2nd to James Main. Sow, any age—Diploma, J. Featherstone. Boar and three sows, any age—Silver medal to J. Featherstone.

LARGE WHITE BREEDS.—In this class the Large Yorkshires, Improved Yorkshires, Chester Whites, and Ohio Chester Whites, were jumbled together. Now that these several breeds are so well represented it is surely a matter for reform. The Improved Yorkshires were on exhibition in large numbers. Messrs. Ormsby & Chapman, of Springfield, with fifteen head; Green Bros., of Inverkip, and J. Featherstone, of Springfield-on-the-Credit, with twenty-five head; and R. Dorsey & Sons, of Summerville, with eight head, were the principal exhibitors of these growing favorites of the pork packers. Of Cheaters, H. George & Sons, of Crampton, showed seventeen head, and D. Decourcy eighteen head. Other exhibitors were E. D. George, of Putman, and Edward Kendrew, of Pond Mills.

Awards.—Boar, two years and upwards—1st to Ormsby & Chapman; 2nd to E. D. George; 3rd to J. Featherstone. Boar, one year old—1st to H. George & Sons; 2nd to E. D. George; 3rd to J. Featherstone. Boar, over six months and under twelve—1st and 2nd to J. Featherstone; 3rd to E. D. George. Boar, under six months—1st to H. George; 2nd to J. Featherstone; 3rd to D. Decourcy. Boar, any age—Diploma to Ormsby & Chapman.

Sow, two years and upwards—1st to J. Featherstone, 2nd and 3rd to R. Dorsey & Sons. Yearling sow—1st to J. Featherstone; 2nd to D. Decourcy; 3rd to H. George & Sons. Sow over six months and under twelve—1st to E. D. George; 2nd to J. Featherstone; 3rd to D. Decourcy. Sow, under six months—1st to J. Featherstone, 2nd to D. Decourcy; 3rd to R. Dorsey. Sow, any age—Diploma to J. Featherstone. Boar and three sows, any age—Silver medal to J. Featherstone.

Toronto Industrial Exposition.

Though the elements waged a merciless war with but few and short truces during the second week of Toronto Exhibition, yet despite this, visitors, firm in the assurance that they would see something becoming of Canada's greatest fair, and exhibitors, convinced that to win trophies here were honors indeed, flocked from far and near and made the Queen City their trying place. It goes without saying that the former had a pleasure feast before them that would satisfy the most ravenous of appetites for amusement, while it is equally beyond question that the latter here found peers in plenty to pick up the gauntlet and do battle for the laurels awaiting the winner. The men from the east, emboldened by their triumph at Ottawa, and the men from the west, exhilarated by the after-glow of victory at the Provincial, met here on common vantage ground, and in the display they made in most departments surpassed that of all former years. The popularity of Toronto's Fair has been once more strongly attested to, and we make bold to say that continued with the same vigorous enterprise and industry that has been the reason of its success in the past, it will soon become the equal if not the superior of the best on our continent, and grow into an institution that "age cannot wither, or custom stale."

CATTLE.

SHORTHORNS.—We were rather disappointed in the exhibit of horned beasts, and it brought to mind the inquiry we overheard last year made by a well-known breeder, "Where are we going to get next year's prize bulls?" The gentleman to whom the query was put replied by pointing out several of the young bulls. When we find that only two or three of these were present this year, it may easily be imagined that the display of bulls was certainly not equal to those of former years. In aged bulls Stanley = 8538, who was first at a two year old at last year's

Provincial, repeated his victory at London. Golden Robe (54375), a deep, low set bull sired by Vermont (47913), was placed second, Victor Hugo Ingram having to content himself with third. Messrs. Russell's red two year old bull, sired by Gravesend out of a cow of the Bessie family, being the only entry, was awarded first. Yearling bulls renewed the contest commenced at London, and the closeness of the competition was verified by the fact that the decision at the Provincial was here reversed, Master Ingram being placed ahead of Silver Star, 3rd going to the next red yearling Musketeer = 10740. Bull calves were again a large class of eighteen entries; in the absence of Mr. Russell's Gray Mariner, Mrs. Nicholson was successful in gaining 1st and with 20th Duke of Sylvan and 21st Duke of Sylvan, Scottish Rose and again obtaining 3rd place. The contest for the silver medal for the best Shorthorn bull of any age was somewhat perplexing, the choice being between Stanley and Master Ingram, but the former eventually gained the day. The decisions in aged cows were a confirmation of the Provincial awards, as were also those of the three and two year olds. Yearling heifers were a smaller class than at London, yet the three prize winners there were present, and were here again the chosen three with the variation that here Red Rosabel = 16022 was placed ahead of Yvonna 13th, a decision in which some did not concur. Heifer calves contained some new competition, and the judges hesitated some little while between the red Nonpareil Victoria and the man daughter of Hampton Hero, but finally decided once more in favor of the former, the roan calf Mayflower 11th, particularly good over the shoulder and fore end, but slightly spread in the hind legs, taking 3rd. For the four best calves bred by the exhibitor four herds were led out. Mr. Nicholson's quartette sired by Warrior taking first, Messrs. Watts, to which some were inclined to give the preference, taking 2nd, and Messrs. Russell 3rd. In the class for head of aged animals the exhibits were identical with those at London, and the awards were the same. The judges were Messrs. Hugh Thompson, of St. Marys, John Fothergill, of Burlington, and J. I. Davidson, of Balsam.

Awards.—Bull, three years old and upwards—1st to J. and W. Russell, Richmond Hill; 2nd to D. K. High, Jordan; 3rd to H. J. Davis, Woodstock. Bull, two years old—1st to J. and W. Russell. Bull, one year old—1st to Bow Park, Brantford; 2nd to Jno. Currie & Sons, Everton; 3rd to J. and W. L. Watt, Salem. Bull calf, under one year—1st and 2nd to R. & S. Nicholson, Sylvan; 3rd to Jno. Morgan & Sons, Kerwood. Bull of any age—1st and silver medal to J. and W. Russell. Cow, four years old and upwards—1st and 2nd to Bow Park Farm; 3rd to J. and W. Russell. Cow, three years old—1st to Bow Park Farm; 2nd to J. and W. Russell; 3rd to R. and S. Nicholson. Heifer, two years old—1st to Bow Park Farm. Heifer, one year old—1st to J. and W. Russell; 2nd to R. and S. Nicholson; 3rd to J. Morgan & Sons. Heifer calf, under one year—1st to J. and W. Russell; 2nd to J. and W. B. Watt; 3rd to Joseph Redmond, Peterboro. Four calves, under one year, bred and owned by the exhibitor—1st to R. and S. Nicholson; 2nd to J. and W. B. Watt; 3rd to J. and W. Russell. Herd, one bull and four females, over one year old, owned by exhibitor—1st to Bow Park Farm; 2nd to J. and W. Russell; 3rd to R. and S. Nicholson.

HEREFORDS.—Never before has there been as large or as good a display of this breed; a few years ago, it will be remembered, that we took exception to the condition in which exhibitors of this breed brought out their cattle, and remarked that such a practice did not tend to increase the popularity of any breed. Whether the present exhibit is due in part to our former stricture, or to the fact that the breeders of this valuable beef breed have recognized the advantage of bringing out their favorites in proper trim, it matters little, the end has been attained and the stone of reproach has been rolled away from the door of the Hereford men, and instead of this year hearing disparaging comments made between the Shorthorn and Hereford rings, the reverse was the case. We were pleased to extend a hearty welcome to Messrs. Vernon, of Waterville, and Judah, of Hillhurst, P. Q., who have this year for the first, but not we hope for the last time, exhibited at our Western Shows. Aged bulls were a grand class, Cassio again came out 1st and also won the silver medal for the best Hereford bull of any age; Marshal Grove was 2nd, and Duke of Chadin, a very even bull but slightly down in the back and perhaps a trifle high off the ground, 3rd. Two two year olds competed, 1st going to Young Tushingham II., and 2nd to Lord Fenn. In yearlings, Amethyst again was placed 1st, and Harmony Wilton, and a position which, if we are not mistaken, they occupied as calves at the last Industrial; Wilton Hillhurst being 3rd. In bull calves, Amos, a level calf, but somewhat flat on the ribs was 1st; Lord Tushingham, a good backed calf, but with a little too much day-light under him, and, and Sir Broady, 3rd. Aged cows were a good class, Lowland Lass, a well fleshed animal, but down in the back, was placed 1st; Lily VI. again held her place over Miss Broady, although the latter showed to better advantage than she did at London. In two year olds, Eastern Empress and Geranium once more took 1st and 2nd, 3rd lying between Lady Laura 6th, and

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Annot Lyle, the former eventually gaining the day, the latter being rather patchy. The prize animals in yearling heifers were placed the same as at London, but in heifer calves the awards were reversed as to the 2nd and 3rd positions, Lady Dot being superseded by Barbara II., a decision we could not concur in, 1st being awarded to Mr. Judah's Bertha. Four herds were led out, and as was anticipated Mr. Cochrane's, headed by Cassio, was easily 1st, Mr. Judah's herd, headed by Duke of Chadim, being 2nd, and Mr. Fleming's, headed by Amethyst, 3rd. A little hesitation was observable among the judges in awarding the 2nd and 3rd prizes, and had Mr. Fleming been a little stronger in his bull, there is little doubt he would have taken a higher place. The judges were Messrs. R. Marsh, of Richmond Hill, F. Green, jr., of Inniskip, and Principal Mills, of the O. A. C., Guelph.

Awards.—Bull, three years old and upwards—1st and 2nd to M. H. Cochrane, Hillhurst, Que., on Cassio (6849) and Marshall Grove 16944; 3rd to E. Judah, Hillhurst, Que., on Duke of Chadim 23177. Bull, two years old—1st to J. W. Vernon, Waterville, Que., on Young Tushingham 23398; and 2nd to F. A. Fleming, Toronto, on Lord Fenn 29030. Bull, one year old—1st and 3rd to F. A. Fleming on Amethyst Vol. X. and Wilton Hillhurst Vol. X.; 2nd to L. G. Drew, Oshawa, on Harmony Wilton (3336). Bull calf, under one year—1st to E. Judah on Amos Vol. X.; 2nd to J. W. Vernon on Lord Tushingham 4th; 3rd to F. A. Fleming on Sir Broady. Bull, any age—1st and silver medal to M. H. Cochrane on Cassio. Cow, four years old and upwards—1st to E. Judah on Lowland Lass 24768; and 2nd to F. A. Fleming on Lily 6th 23833 and Mrs. Broady 23852. Cow, three years old—1st to M. H. Cochrane on Vanity 23121, and 2nd to F. A. Fleming on Miss Broady 26399; 3rd to E. Judah on Ripley. Heifer, two years old—1st and 2nd to M. H. Cochrane on Geranium 32948 and Eastern Empress 28600; 3rd to J. W. Vernon on Lady Laura 6th 23294. Heifer, one year old—1st and 2nd to M. H. Cochrane on Vanity 3rd and Young Queen 3rd; 3rd to F. A. Fleming on Lily Wilton Vol. X. Calf, under one year—1st to E. Judah on Bertha Vol. X.; and 2nd to F. A. Fleming on Barbara and Vol. X. and Lady Dot Vol. X. Herd, one bull and four females over one year, owned by exhibitor—1st to M. H. Cochrane; 2nd to E. Judah; 3rd to F. A. Fleming.

ANGUS.—The Hillhurst herd, which had no competition whatever at London, here met in with a number of "prime Scots" representing the herds of Dr. D. Craik, of Montreal, and the result was that more vigor and interest attended the proceedings. Dr. Craik is a new exhibitor in western regions, but his success here, allowing for the fact that he had a veteran exhibitor to contend against, must surely be gratifying to him. We learnt, and we also drew the conclusion from the animals exhibited, that Dr. Craik is no mere novice in breeding, as he has handled the doddies for a number of years past. Charmer of Eastview 8770, a yearling bull of this herd, was a snug youngster, and smoothly moulded in all his parts. Baronial Prince, a young bull calf of this collection, showed the true Angus characteristic in his round form and fineness of finish. Of the five females, Princess Victoria, a Kinloch Baroness (5522) by a Pride bull, Shah (680), is probably the queen of the lot. She is the mother of Baronial Prince. Fanny of Ardgowan 6512 and Ardgowan Favorite 8872 are a trim pair of the Kinloch Favorite strain. They both possess abundance of quality, and with little waste about them, indicating that they would, in butcher's phraseology, "kill well."

Awards.—Bull, three years old and upwards—1st to M. H. Cochrane on Lord Hillhurst. Bull, one year old—1st to M. H. Cochrane on Black Hussar 903; 2nd and 3rd to Dr. Craik on Charmer of Eastview 8770 and Favor 0770. Bull calf, under one year—1st to Dr. Craik on Baronial Prince. Bull, any age—1st and silver medal to M. H. Cochrane. Cow—1st and 2nd to M. H. Cochrane on Ruth's Favorite 8038 and Pride 6th 6 Greystone 3961; 3rd to Dr. Craik on Fanny of Ardgowan 6512. Cow, three years old—1st and 2nd to M. H. Cochrane on Lady Ida Forbes 6619 and Bonny Maid 6937. Heifer, two years old—1st, 2nd and 3rd to M. H. Cochrane on Jeanette 6032, Valencia 8044, and British Bird 6942. Heifer, one year old—1st to M. H. Cochrane on Beauty's Queen 9399. Heifer calf, under one year—1st to M. H. Cochrane on Lady Forbes of Crampton Vol. III. Herd, one bull and four females over one year old, owned by exhibitor—1st and 2nd to M. H. Cochrane; 3rd to Dr. Craik.

GALLOWAYS. As at London the only exhibitors in this class were Messrs. Thos. McCrae, of Guelph, and W. Kough, of Owen Sound. As we put up an interesting description of the contest of these herds at the Provincial we shall but append the awards here.

Awards.—Bull, three years old and upwards—1st and 2nd to W. Kough on Claverhouse (456) and Robin Adair 2124; 3rd to Thos. McCrae on Cob of Tarbrooch (4167). Bull, two years old—1st, 2nd, and 3rd to Thos. McCrae on Commonwealth 4515, Count Palatine (4508) and Chester (4472). Bull, one year old—1st and 3rd to Thos. McCrae on Glencairn 8028 and Count Brant 3944; 2nd to W. Kough on General Gordon (4786). Bull calf—1st and 3rd to Thos. McCrae on Bruce 5948 and Kent; and 2nd to W. Kough on The Baron 6177. Bull, any age—1st and silver medal to W. Kough. Cow, four years old and upwards—1st to W. Kough on Countess of Glencairn (5017); 2nd and 3rd to Thos. McCrae on Good Girl (7431) and Maid of Killinming (12202). Cow, three years old—1st and 2nd on Mary 4th 2324 and Sybil and (10088); 2nd to Thos. McCrae on Violet 3rd (6675). Heifer, two years old—1st and 3rd to Thos. McCrae on Susie of Janefield (10533) and Black Beauty XIV. and to W.

Kough on Mary 5th 3600. Heifer, one year old—1st to W. Kough on Miss Steele 4248; 2nd and 3rd to Thos. McCrae on Cherie 11081 and Hannah II. of Guelph (11060). Heifer calf—1st to Thos. McCrae on Rance IX. 5937; 2nd and 3rd to W. Kough on Sybil K. 3rd 5308 and Countess of Glencairn 3rd. Herd—1st to W. Kough; 2nd to Thos. McCrae.

DEVONS.—It is with regret that it is once more our task to record that there is little or no increase in the number of Devons exhibited, and at the risk of offending our Devon friends, we would point out that the condition in which some of the animals were shown is not calculated to increase their popularity with the public. "Comparisons are odious," but still they are made, and onlookers standing round the rings see Shorthorns, Herefords, etc., brought out in the pink of condition, and naturally suppose that the Devons have been similarly treated, and we would ask our Devon friends if a condition which affords scope for such a comparison is giving fair play to their favorites, and we feel sure that their attention having once been directed to this point that we shall next year see something like an exhibit. In aged bulls Luther was the sole exhibit, and received a red ticket. Duke winning 1st in his class and afterwards the silver medal for the best Devon bull of any age. In aged cows Rose was placed 1st and Beauty 2nd, although we would have been inclined to reverse their positions; 3rd going to Mabel in preference to Rose of Cobourg. In the class for heifers Mr. Rudd showed two and Mr. Harper one, the silver medal being taken by Mr. Rudd and the bronze by Mr. Harper. The judges were the same as those on Herefords.

Awards. Bull, three years old and upwards—1st to S. Harper, Cobourg, on Luther 931. Bull, two years old—1st to W. J. Rudd, Eden Mills, on Duke 947; and 2nd to S. Harper on Brigham 948. Bull, one year old—1st and 3rd to W. J. Rudd on Darby 959 and Nelson 957; and 2nd to S. Harper on Buffalo Jack 955. Bull calf—1st to S. Harper on Job 985; and 2nd to W. J. Rudd on Hero 982 and Captain 984. Bull, any age—1st to W. J. Rudd. Cow, four years old and upwards—1st and 2nd to W. J. Rudd on Rose 849 and Beauty 800; 3rd to S. Harper on Mabel (940). Cow, three years old—1st and 2nd to W. J. Rudd on Lady Emerald 946 and Esmeralda 946; 3rd to S. Harper on Maggie (948). Heifer, two years old—1st and 3rd to W. J. Rudd on Dido 951 and Rene 952; and 2nd to S. Harper on Susan 955. Heifer, one year old—1st and 3rd to W. J. Rudd on Frances 962 and Ethel 961; and 2nd to S. Harper on Fanny B 960. Heifer calf—1st and 3rd to W. J. Rudd on Fanny 835 and Gem 886; 2nd to S. Harper on Lily. Herd—1st to W. J. Rudd; 2nd to S. Harper.

AYRSHIRES. Messrs. Jas. Drummond, of Montreal, and Jas. McCormick, of Rockton, here joined the Provincial exhibitors, Messrs. J. Gerrard of Hamilton, Thos. Guy, of Oshawa, W. M. & J. C. Smith of Fairfield Plains, W. Stewart, jr., of Maine, and Nichol Bros. of Plattville, making the Ayrshire class a very strong one, and one of the best rallies of this breed that has ever occurred. Mr. Jas. Drummond had an extra good collection, but as we shall treat our readers to a group from this herd in our next number we shall defer using our notes until then. Mr. McCormick displayed his tact as a breeder in the string he had. Campbell (375) his stock bull, is worthy of the honor bestowed on him. In form he is capital, with a rugged constitution and plenty of vitality. Beauty of Argyle 417, winner of first at a three-year-old, was indeed a beauty in more than name from the dairymen's point of view. The gathering of Ayrshires at this fair was without doubt one of the best that has ever been brought together at one fair in Canada. It redounds to the credit of the Ayrshire breeders that this was so, and the continuance of such musters will do much to make the breed better known and more patronized.

Awards.—Bull, three years old and upwards—1st to James Drummond on Rob Roy (2971); 2nd to W. M. & J. C. Smith on Rob Roy of Oxford 300; 3rd to James McCormick. Bull, two years old—1st to A. Gerrard on Royalty 4646; 2nd to James McCormick on Frank and 470; 3rd to Nichol Bros. on Oa and Lad—A 44. Bull, one year old—1st to Nichol Bros. on King of Oxford A 45; 2nd to James Drummond on Prince P H (4669); 3rd to Thomas Guy on Lutterly Duke 901. Bull calf—1st to James Drummond on Marquis P. H. (4769); 2nd to A. Gerrard on Jim Henderson 404; 3rd to Thomas Guy. Bull, any age—1st and silver medal to James Drummond. Cow, four years old and upwards—1st and 2nd to James Drummond on Viola 3rd (3822) and Lily. Hardington (3628); 3rd to Thomas Guy on Violet 1729. Cow, three years old—1st to James McCormick on Beauty of Argyle 417; and 2nd to James Drummond; 3rd to W. Stewart, jr. Heifer, two years old—1st to W. M. & J. C. Smith on Gusta 22th 602; 2nd to James McCormick on Sarah Thompson; 3rd to Thomas Guy on Lily of Sydenham 910. Heifer, one year old—1st and 3rd to James Drummond on Bu P H. and Primrose 4543; 2nd to Thomas Guy on Model 4th 911. Heifer calf—1st and 3rd to Thomas Guy on Violet 3rd and Model 4th; 3rd to James Drummond. Herd—1st to James Drummond; 2nd to W. M. & J. C. Smith; 3rd to James McCormick.

JERSEYS.—There was a capital muster also in this class. Mrs. E. M. Jones, of Brockville, brought the same contingent here as that she had at the Provincial. Mr. R. Bailey also was on hand with the same lot as that which he showed at London. The other exhibitors were Messrs. Jno. Leys, of Toronto, W. Rolph, of Markham, John Maughan, Toronto, Jas. Clark, Brampton, Jno. P. Smith, Roaches Point, A. M. Dodge, Waubesaue,

and the Lakehurst Jersey Stock Farm of Oakville. Mr. John Leys had eighteen in all, headed with his admirable stock bull Ollie Boy 16668, that appears in the August number of our Journal in an excellent engraving. Bell Boy is criterion of the stock of Ollie Boy as the latter was his sire. He is a choice youngster and was well worthy of his award. Alma of Oakdale, a two year old heifer, another that Ollie Boy has sired, had many indications about her of future good milk and butter qualities. Mr. Rolph, of Markham, had a two year old of sterling value, in Canada's John Bull 5th 29092, a get of the renowned sire Canada's John Bull 8388. The Lakehurst Jersey Stock Farm had a number of crack animals in their entries. A yearling of good quality and high breeding was Mighty Dollar, a get of One Hundred Per Cent. 16390, and he was well worthy of the highest honors the judges could give him in his class. They showed another get of this same sire, Jetcam May, that secured third in a strong class.

Awards.—Bull, three years old and upwards—1st to Jas. Clark, Brampton, on Nabob John Bull 17826; 2nd to Jno. P. Smith, on Lady's Prize; 3rd to A. M. Dodge, on Alberts John Bull 18320. Bull, two years old—1st to Mrs. E. M. Jones, on Canada's Sir George 18290; 2nd to W. Rolph, on Canada's John Bull 5th 29092. Bull, one year old—1st to Lakehurst Jersey Stock Farm, on Almighty Dollar; 2nd to Jno. Leys, on Bell Boy; 3rd to Mrs. E. M. Jones, on Signal of Belvedere. Bull calf—1st to Jno. Maughan, on Fawn King 22791; 2nd and 3rd to Lakehurst Jersey Stock Farm. Bull, any age—1st and silver medal to Mrs. E. M. Jones, on Rioter's Pride 11604. Cow, four years old and upwards—1st and 3rd to Lakehurst Jersey Stock Farm, on Hugo Beauty 31576, and Dolly 2nd; 2nd to Mrs. E. M. Jones, on Lula Delle. Cow, three years old—1st to W. Rolph, on Baronet's Victory and 39176; and 2nd to Mrs. E. M. Jones, and 3rd to John Maughan, on Violet of Glendun 40710. Heifer, two years old—1st and 3rd to Mrs. E. M. Jones, on Orange Delia and Barbary of Dorval; and 2nd to John Leys, on Alma of Oakdale. Heifer, one year old—1st and 2nd to Mrs. E. M. Jones, on Catharine of St. Lambert and Massena's Malone; 3rd to Lakehurst Jersey Stock Farm, on Jetcam May. Heifer calf—1st to Mrs. E. M. Jones, on Ranshee of St. Lambert; and 2nd to R. Bailey on Rose of Oak Grove 58352; 3rd to W. Rolph. Herd—1st to Mrs. E. M. Jones; 2nd to Lakehurst Jersey Stock Farm; 3rd to W. Rolph.

HOLSTEINS.—A very noticeable feature in the live stock department was the increase in the number of Holstein exhibitors over that of former years, and this, too, in the face of the fact that many of the older breeders did not put in an appearance. From the Provincial the Smith Bros. came with the same collection as they had there. Adanac 190, a vigorous bull of many personal attributes besides form and constitution, stood here at the head of the harem of twenty females shown by Mr. John Leys, M.P.P., of Toronto. Messrs. Felan & Breckon came forward with twelve head that made a creditable showing. On Oakville Chief 733, of the Echo strain, first honors were bestowed and he truly won it in the very best of company considering that Mink Mercedes Baron 5676, owned by the Smith Bros. (whom many thought should have been better placed) and Alex. Kennedy's Woodbine Prime 6712 were his competitors. The females of this lot possessed many features on the whole to recommend them as useful dairy animals. Mr. Alex. Kennedy, of Ayr, had a force of six head, headed by a rather taking bull in personal appearance, Woodbine Prince 6712. The females were of good types and were a uniform lot not without features of excellence. Mr. John Woodhall, of Brampton, had also a number of good animals which did not fail to win with their qualities the judges' good opinion in a number of cases.

Awards.—Bull, three years old and upwards—1st to Jno. Leys on Adanac 190; 2nd to Smith Bros. on Duke of Edgely 525. Bull, two years old—1st to Felan & Breckon on Oakville Chief; 2nd to Alex. Kennedy on Woodbine Prince 6712; 3rd to Smith Bros. on Mink Mercedes Baron 5676. Bull, one year old—1st to Jno. Leys on Banker; 2nd to Smith Bros. on Harmonia's Mercedes Prince 6841; 3rd to Felan & Breckon on Holland Field 7656. Bull calf—1st and 2nd to Felan & Breckon on Island Maud's Dikson; 3rd to Alexander Kennedy. Cow, four years old and upwards—1st, 2nd and 3rd to John Leys on Rol 111. 497, Olive 498, and Diawerra 491. Cow, three years old—1st to Smith Bros. on Belle of Orchardside and 6256; 2nd to Felan & Breckon on Anna Roberts 5497; 3rd to John Woodhall on Miss McLin 3835. Heifer, two years old—1st to John Woodhall on Edgely Beauty 6548; and 2nd to Smith Bros. on Valley Princess 9911; 3rd to Felan & Breckon on Belle of Falconwood 5335. Heifer one year old—1st to Smith Bros. on Modest Girl 3rd 10515; 2nd to John Leys on Bijou of Oakville; 3rd to Felan & Breckon on Anna Roberts and 10326. Heifer calf—1st to Smith Bros. on Lillie Tensen; 2nd and 3rd to Felan & Breckon on Butlin Spaulding and Mina Low. Herd—1st to John Leys; 2nd to Smith Bros.; 3rd to Felan & Breckon.

GRADE CATTLE.—The exhibitors in this class were Messrs. Jno. Morgan & Sons, of Kerwood; Jas. Oke, Alvinston; Jno. Currie & Sons, Everton; J. Atkinson, Utoka; and Jas. Leask, of Greenbank. The prizes won by these several gentlemen are given below.

Awards.—Cow, four years old and upwards—1st to Jno. Morgan & Sons; 2nd to J. Leask; 3rd to Jas. Oke. Cow, three years old—1st to J. Atkinson; 2nd to J. Leask; 3rd to Jno. Morgan & Sons. Heifer, two years old—1st to Jas. Leask; 2nd to J. Atkinson. Heifer, one year old—1st and 3rd to Jas. Leask; 2nd to Jas. Oke. Heifer calf—1st to Jno. Currie & Sons; 2nd to Jno. Morgan & Sons; 3rd to Jas. Oke. Four females over

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one year old, the property of the exhibitor—1st and 3rd to Jas. Leask; and 2nd to J. Atkinson.

FAT CATTLE.—The competition in this class was good. The exhibitors were as follows: Messrs. J. & R. McQueen, Salem; Weir & Weir, St. Mary's; J. & W. B. Watt, Salem; W. Coe, North Hastings; Jas. Oke Alvinston; and W. Snyder & Son, Brampton.

Awards.—Fat steer, three years old and over—1st and 2nd to Weir & Weir. Fat steer, under three years old—1st to Jas. Oke; and 2nd to W. Snyder & Son; 3rd to J. & W. B. Watt. Fat cow or heifer, four years old and over—1st to J. & R. McQueen; and 2nd to W. Coe; 3rd to Jas. Oke. Fat heifer, under four years old—1st to Jas. Oke; and 2nd to W. Snyder & Son; 3rd to R. & S. Nicholson. Pair of fat cattle any age, neither of which are entered in the other sections—1st to J. & R. McQueen; and 2nd to W. Snyder & Son; 3rd to Jas. Oke.

HORSES.

Never before in the history of the Industrial has such a large and excellent assemblage of horses been brought together. In all classes, light and heavy, the competition was of the keenest, and it there was one feature more than another distinctly shown it was that our breeders are paying more attention to quality and finish than formerly. This was observable in all classes, and particularly so in the heavy draughts. A greater uniformity in form, build and type was also distinctly to be seen in the lighter classes, indicating that our horsemen are awakening to the fact that this feature is a very valuable one in the raising of light horses if the wants of any market of extent is to be met.

CLYDESDALES.—If we may accept the number of Clydes here exhibited as a criterion of their popularity in Canada, or perhaps, more properly Ontario, we cannot but be struck with the rapidity of their progress and the hold they have upon our horsemen. Such a concourse of Clydes has never, to our knowledge been gathered together in Canada. The quality was high even though the individuals were many, and the judges, Messrs. Jno. Duff of Everton, Geo. Cockburn of Baltimore, and E. W. Charlton of Dunfermline, had most decidedly a task of no light nature before them in awarding the prizes with that carefulness and prudence which characterised their decisions. Of all the classes, that of the two year old stallions contained the greatest number and gave us to the keenest competition. Messrs. R. Beith & Co., of Bowmanville, D. & O. Sorby of Guelph, and Jos. Vance of New Hamburg, were here with the same animals that they had at the Provincial. Mr. T. W. Evans, of Yvelton, had a number of his importations of this year, and in fine cattle they were. He had a pair of two year old stallions, the best of which was Just the Thing Vol. XII., a deep brown, heavily and strongly built stallion, of nice finish and rather, that was a successful show horse over the water, having been a winner at Paisley, Borhead and other shows. He was a horse hard to beat. The other, Jubilee Sovereign 6859, was a thick bay and well muscled. Messrs. Dundas & Grandy had a selection of four from their stud. General Wolfe 844, a three year old son of St. Lawrence (3200), was from their stables. He is a strongly quartered horse, deep in the heavy ribs and full chested. A choice filly, Maid o' Bardraug 659, was another of their lot that had her good qualities acknowledged by a first in her section. Messrs. D. & R. McGeachy, of Castlemore, had a number of superior animals, and they succeeded in winning the silver medal for the best Clydesdale mare with two of her progeny. Mr. John Gilmour, of Toronto, had a uniform lot of good ones, mostly stallions, all importations of this year. Several stallions the property of Mr. John Rolston, of Croy, Scotland, found admirers among well versed horsemen. Other exhibitors that contributed more or less to make the showing worthy of the breed, were Messrs. J. Campbell & Co., of Markham, Thos. McLaughlin, Brussels, Jno. Sheppard, Toronto, A. B. Scott & Son, Vanneck, Adam Inch, Glasgow, J. Gilkinson, Orangeville, J. Thomson, Lansing, Thos. Meagher, Doncaster, Sydenham & St. Vincent Stock Co., Jas. McCombie, Galt, Joseph Button, Kleinburg, E. Shaw, Heathcote, Jas. I. Davidson, Balsam, J. W. Robinson, St. Mary's, and J. Devitt, Floradale.

Awards.—Stallion, four years old and upwards—1st to R. Beith & Co. on Sir Maurice 1126; and 2nd to D. & O. Sorby on Hold Boy 4257; 3rd to Joseph Vance on Wighton Lad 5441. Stallion, three years old—1st and 3rd to R. Beith & Co. on Sir Walter 1313, and Eastfield Style 1258; and 2nd to Dundas & Grandy on General Wolfe 844. Stallion, two years old—1st to R. Beith & Co. on Eastfield Chief 1299; and 2nd to T. W. Evans on Just the Thing Vol. XII.; 3rd to J. Gilkinson on McConeagley. Yearling colt—1st to A. B. Scott & Son on Red Cross Knight 849; and 2nd to D. & O. Sorby on Homeward Bound and the Granite. Stallion, any age—Silver medal to R. Beith & Co. Filly, three years old—1st to D. & O. Sorby on Evening Star; and 2nd to J. Campbell & Co.; 3rd to John Gilmour on Rosa. Filly, two years old—1st and 3rd to Dundas & Grandy on Maid of Bardraug 659, and Halton Fanny 658; and 2nd to T. W. Evans on Daisy 61. Yearling filly or gelding—1st to R. Beith & Co. on Maria 679; and 2nd to D. & O. Sorby on Sunrise; 3rd to T. W. Evans on Paisley Gem Vol. XI. Brood mare with foal of same breed by her side—1st to J. Devitt; and 2nd to A. Inch on Nannie; 3rd to A. B. Scott & Son. Foal of 89—1st to A. Inch on Bonnie Jean Vol. XII.; and 2nd to A. B. Scott &

Son; 3rd to W. Foster on Enterprise. Mare with two of her progeny—Silver medal to G. & R. McGeachy. Span of geldings or mares—1st to J. W. Robinson; and 2nd to R. Beith & Co.; 3rd to Jas. I. Davidson & Sons. Mare, any age—Silver medal to Dundas & Grandy. Special prizes—Stallion, imported or Canadian bred, with five of his progeny of any age or sex—1st to D. & R. McGeachy. Three females any age, the property of exhibitor, and recorded in the Clydesdale Stud Book of Canada—1st to R. Beith & Co.

ENGLISH SHIRE.—There was quite an addition to this class in the way of exhibitors, many making their first appearance here. Messrs. Ormsby & Chapman reinforced the lot they had at the Provincial with a number of their best animals that had not been idle in winning prizes at Buffalo. J. Gardhouse & Sons, of Highfield, had a strongly coupled and muscular stallion in King of the Castle 3171, a get of Honest Tom 1105. He is close to the ground, of nice quality, and is a clean mover. King Tom 1107, owned by S. Hisey & Son, of Creemore, a toppy and stylish moving stallion, got by King Tom (2446), was a competitor for honors in the same class. Mr. Thomas Irving, of West Winchester, exhibited a vigorous and active stallion, named Hail All 5937. He stands on short pins of firm bone and moves in capital style, but was perhaps lighter in timber than many of his competitors. Man o' War (153), noticed in our Provincial report, was here also. W. H. Millman, of Woodstock, had from his stud Guinea King, a three-year-old stallion, of full quarters, deep, round body, and nice finish; also a large-bodied, strong-joined brood mare, Cherry, that stood and in her class, Maggie and Jennie were an excellent span of mares, but had a hard pair to beat in Hendrie & Co.'s Princess Louise and Beatrice. Mr. E. M. Jarvis, of Clarksons, made a capital beginning in exhibiting by winning 1st on a roomy and wide-quartered three-year-old filly, Leake Lively.

Awards.—Stallion, four years old and upwards—1st to J. Gardhouse & Sons on King of the Castle (3171); and 2nd to S. Hisey & Son on King Tom (1107); 3rd to Thos. Dunkin & Son on Man o' War (153). Stallion, three years old—1st and 3rd to Ormsby & Chapman on Leake Cramp Vol. XI. and Leake Shelford Vol. XI.; and 2nd to W. H. Millman on Guinea King. Stallion, two years old—1st and 3rd to Ormsby & Chapman on Leake Walker Vol. XI. and Commander 4th 7045; and 2nd to W. Glendenning on Ellesmere Laddie 166. Yearling colt—1st and 2nd to Ormsby & Chapman on Leake Edward Vol. XI. and Leake Beauchief Vol. XI. Stallion, any age—Silver medal to Jas. Gardhouse & Sons. Filly, three years old—1st to E. M. Jarvis on Leake Lively; and 2nd to Ormsby & Chapman on Leake Polly and Leake Lovely. Filly, two years old—1st and 2nd to Ormsby & Chapman on Leake Daisy and Leake Sally. Brood mare with foal of same breed by her side—1st to F. Coleman; and 2nd to W. H. Millman on Cherry. Foal of 1889—1st to W. H. Millman; and 2nd to F. Coleman. Span of geldings or mares—1st to Hendrie & Co.; and 2nd to W. H. Millman. Mare, any age—Silver medal to Hendrie & Co.

SUFFOLK PUNTERS.—This clean-limbed, firm-boned, and active breed were out in comparatively good numbers. Mr. Thos. Irving, of West Winchester, had a collection that certainly did honor to their owner's abilities as a horseman. Banker Boy 1912 a stallion owned by this gentleman and here shown, is a fine upstanding horse, snugly put together, and possessed of action bold and free. Baroness 1300, a brood mare from these stables, would satisfy the most particular with her immense breadth of loin, deep, well-sprung barrel, and grand quality. Mr. D. Christie, also of West Winchester, exhibited a spry and vigorous stallion, Captain William 1993, and a three-year-old mare, Smart 2nd, of excellent width and finish. Messrs. Snider & Edmonston, of Brantford, had also a number on hand that made a creditable record. Messrs. A. & J. W. Salmon, who were at the Provincial, also were exhibitors here.

Awards.—Stallion, two years old—1st to Thos. Irving on Banker Boy 1912. Yearling colt—1st to D. Christie on Captain William 1993. Stallion, any age—Silver medal to Thos. Irving. Mare three years old—1st to D. Christie on Smart 2nd. Brood mare with foal of same breed by her side—1st to Thos. Irving. Foal of 1889—1st to Thos. Irving on Flossie. Matched team (geldings or mares) in harness—1st to Snider and Edmonston. Mare, any age—Silver medal to Snider & Edmonston.

PERCHERONS.—This breed made a better showing than usual, and some fine specimens were to be found among them; rangy, solid-bodied and short-limbed stallions that would leave their impress strongly on their get. Mr. L. Beaubien, Montreal, President of the Horses National, of 30 James St. Montreal, and connected with the Percheron and Arabian Horse Imp. Co. of United States, and the Société Hippique de Paris, had on exhibition two fine stallions, and especially is this applicable to a dashing coal black three-year-old, Joly 812, that had, before coming to Toronto, won for his owners a number of honors. Owing to a late arrival they were only on exhibition, and did not enter the competition. This firm had a couple of French Coach horses here also. Holopherne 198, a four-year-old, is a rangy, stylish stallion, full of quality, smooth and well-turned in all his parts. The other, Marquis de Prusse 203, was stronger boned and heavier built though only a three-year-old. Other Percheron exhibitors were: Messrs. D. E. Adams, Oxford Centre; McGavin Bros. Chatham; E. Brickman, Rednorville; W. E. Baker, Demorest-

ville; J. W. Anderson, Rossmore; P. W. Brown, Demorestville; and the Sydenham & St. Vincent Stock Co., of Chatsworth.

Awards.—Stallion, three years old and upwards—1st to E. Brickman; and 2nd to W. E. Baker; 3rd to P. W. Brown. Stallion, two years old—1st to W. E. Baker; and 2nd to J. W. Anderson; 3rd to McGavin Bros. Yearling colt—1st to J. W. Anderson; and 2nd to W. E. Baker. Stallion, any age—Silver medal to E. A. Brickman. Mare, three years old and upwards—E. A. Brickman, and 2nd to D. E. Adams; 3rd to McGavin Bros. Yearling filly or gelding—1st to D. E. Adams. Brood mare, with foal of same breed by her side—1st to W. E. Baker; and 2nd to D. E. Adams; 3rd to E. A. Brickman. Foal of 1889—1st to E. A. Brickman; and 2nd to McGavin Bros. Matched team (geldings or mares) in harness—1st to McGavin Bros. Mare, any age—1st and silver medal to W. E. Baker.

HACKNEYS.—The only horse that entered the ring to compete for the sweepstakes for Hackney stallions was Nobleman 2328, owned by Thomas Irving, of West Winchester. This stallion is far the best Hackney we have ever seen, and we heard one, in authority on light horses, corroborate this opinion. Being extra well trained, and in the hands of a capital horseman, he showed his many virtues to excellent advantage. He is quality from heel to nose, and in form is symmetrical, stylish, and full of ambition. His fine muzzle, clean cut throat-latch, beautifully arched crest and full neck, in conjunction, with his round, tightly-ribbed barrel, carried on legs that are handled in the best of style, comprise some of the attributes that made him universally admired by all who saw him on the line. He was, of course, given first in his class.

ROADSTERS.—The gathering of roadsters has rarely, if ever, been equalled in Toronto. In the stallion classes a number of capital horses were brought out. Frank Ellis 7397, owned by J. Craig, V.S., of Hamilton, that appeared in an engraving in the June issue of our JOURNAL, was here in capital trim. He is a very stylish stallion, with abundance of ambition, and was also of such a height and build as to throw stock that would look becoming before a carriage. Forrest Mambrino 985, a lithe and well-put-together stallion, a get of Mambrino Patchen, was also in the ring. He strikes a splendid gait, and was undoubtedly worthy of the honor he received at the judges' hands. He is owned by Mr. John Leys, of Toronto. In the special prize for stallion and five of his get it would be hard to get a lot to equal these. Frank Ellis was certainly highly honored in his youngsters which all reflected their sire's breeding and quality. The bays sired by Forrest Mambrino were of a heavier stamp, and were a collection of rare excellence also. There was quite an advance over the roadster class of former years. Stallions and mares were here in plenty of the best breeding, indicating that the breeders are paying more attention to the blood lines than formerly, and the result has been horses more uniform in conformation and more of the true roadster type. It would be practically impossible to notice even in part the exhibits in this class, owing to the great numbers.

Awards.—Stallion, four years old and upwards—1st to J. Craig, V.S., Hamilton, on Frank Ellis 7397, and 2nd to J. Leys, Toronto, on Forrest Mambrino 985; 3rd to G. W. Long, St. Catharines. Stallion, three years old—1st to W. Cowper, Dundas, on Leopard; and 2nd to H. Glover, Hannon; 3rd to J. Fisher, Georgetown. Stallion, two years old—1st to H. G. Charlesworth, on Honest Wilkes; and 2nd to J. H. Kennedy, Canning, on Norville 10213; 3rd to G. V. Delong, Lynedoch, on Judge Livingstone. Yearling colt—1st to D. W. Thompson, Wexford; and 2nd to James Smith, Watford, on Yeon Medium; 3rd to W. Elliot, Lambton Mills. Stallion, any age—Silver medal to J. Craig, V.S. Three-year-old gelding—1st to J. J. Stewart, Britannia; and 2nd to Charles Johnson, Summerville; 3rd to G. Baker, Lan-nonville, on Prince Imperial. Three-year-old filly—1st to S. Bitter, Dollar, on Mandoline; and 2nd to John McKeown; 3rd to J. Russell, Jr., Toronto. Gelding, three years old—1st and 2nd to J. Pratt, Brampton. Filly, two years old—1st to J. J. Stewart, Britannia; and 2nd to R. M. Wilson, Delhi; 3rd to K. T. Smith, Toronto. Yearling filly or gelding—1st to J. Pratt; 2nd to William Patterson, Milton; 3rd to D. D. Smith, Seaford. Brood mare, with foal—1st to J. Craig; and 2nd to W. Smith, Seaford; 3rd to E. A. McDonald, Toronto. Foal of 1889—1st to J. Craig; and 2nd to W. Smith; 3rd to W. Hendrie, Hamilton. Pair matched horses, geldings or mares—1st to James Clark, Brampton; and 2nd to R. Hutton, Owen Sound; 3rd to W. C. McLean, Meaford. Single mare or gelding, in harness—1st to J. W. Holman, Toronto; and 2nd to E. McIntyre, Brantford; 3rd to C. H. Nix, Uxbridge. Mare, any age—Silver medal to J. Craig, Hamilton. Stallion and five of his progeny—1st to J. Craig; and 2nd to John Leys.

CARRIAGE HORSES AND THOROUGHBREDS.—The entries in both these classes were numerous, and the quality on the whole all that could be desired. In the latter class the aged stallions attracted considerable attention, as they were an exceedingly good collection. The carriage horses made fully a better exhibit, especially in respect to style and finish that that of any former year.

Awards in Carriage Class.—Stallion, four years old—1st to John Kock, New Hamburg, on Captain Cook; and 2nd to A. C. McMillan, Enn, on Shining Light 1178; 3rd to W. C. Brown, Meadowdale, on King Fairfield. Stallion, three years old—1st to A. Marsh & Sons, Richmond Hill, on Prince Alexander; and 2nd to Jas. Irving, Cass Bridge, on Defiance; 3rd to L. Reaubien, Montreal. Stallion, two years old—1st to Jas. Cum-mington & Son, Mayfield, on Young Peacock; and 2nd to James

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J. G. Snell & Bro.; 3rd to Messrs. McNish. Sow, under six months—1st and 3rd to J. G. Snell & Bro.; 2nd to Messrs. McNish. Boar and two sows any age—1st to J. G. Snell & Bro.; 2nd to Geo. Green.

SUPPLOS.—This very plump and easily kept breed was well represented in the exhibits of R. Dorsey, Burnhamthorpe, J. D. Featherstone, Springfield-on-the-Credit, H. George & Son, Crampton, W. H. Reid, Lockton, and some others.

Awards.—Boar, over two years—1st to Jos. Featherstone, 2nd to H. George & Sons; 3rd to R. Dorsey. Boar, over one and under two years—1st two W. H. Reid, 2nd to R. Dorsey; 3rd to Jos. Featherstone. Boar, over six and under twelve months—1st and 2nd to Jos. Featherstone; 3rd to W. H. Reid. Boar, under six months—1st and 2nd to R. Dorsey, 3rd to H. George & Sons. Sow, over two years—1st and 2nd to J. Featherstone; 3rd to R. Dorsey. Sow, over one and under two years—1st to R. Dorsey; 2nd to E. D. George; 3rd to H. George & Sons. Sow, over six and under twelve months—1st to R. Dorsey; 2nd to H. George & Sons; 3rd to Jos. Featherstone. Sow, under six months—1st and 2nd to R. Dorsey; 3rd to W. H. Reid. Boar and two sows, any age—1st to R. Dorsey; 2nd to Jos. Featherstone.

Essex.—This breed, also easily kept, was not out in large numbers, the only exhibitor being John Featherstone, Credit, and he, as an infallible consequence, captured all the prizes.

POLAND CHINAS.—This large-bodied breed, so popular in America, were brought out by the Messrs. W. M. & J. C. Smith, Fairfield Plains, R. Dorsey, Burnhamthorpe, D. Decourcy, Bornholm, and J. A. Gould, Woodstock. The quality was fair, but the markings in some instances varied more probably than is desirable.

Awards.—Boar, over two years—1st and 2nd to Messrs. Smith. Boar, over one and under two years—1st to R. Dorsey; 2nd to Messrs. Smith. Boar, over six and under twelve months—1st to Messrs. Smith; 2nd to J. A. Gould, Woodstock. Boar, under six months—1st and 2nd to Messrs. Smith; 3rd to D. Decourcy. Sow, over two years—1st to R. Dorsey; 2nd to Messrs. Smith; 3rd to J. A. Gould. Sow, over one and under two years—1st and 2nd to R. Dorsey; 3rd to Messrs. Smith. Sow, over six and under twelve months—1st and 2nd to Messrs. Smith; 3rd to J. A. Gould. Sow, under six months—1st to D. Decourcy; 2nd and 3rd to Messrs. Smith. Boar and two sows, any age—1st to R. Dorsey; 2nd to Messrs. Smith.

LARGE WHITE BREEDS.—Large Yorkshires, Improved Yorkshires, Chester Whites, and Ohio Improved Whites were shown together. A strange mixture for any one being called on to judge. The large Yorkshire and the Improved Yorkshire are not at all alike in general conformation or in specific characteristics. The former are very large, with large heads and drooping ears; the latter have medium bone, and are medium in size, being long and deep in the body. The ears do not droop, the head is rather short, and the neck clean. The face has something of the appearance of a bull dog, having lots of dish, and a short pug nose. The judges awarded the prizes to those who had the largest and fattest animals, irrespective of breed or utility. The leading exhibitors of Improved Yorkshires were Ormsby & Chapman, Springfield; Green Bros., Innerkip; E. M. Jarvis, Clarkson; H. George & Sons, Crampton; J. E. Brethour, Burford. R. Dorsey, Burnhamthorpe; and J. Decourcy, Bornholm, exhibited large Yorkshires; and D. Featherstone, Springfield, had a good exhibit of Chester Whites.

Awards.—Boar, over two years—1st to J. Featherstone; 2nd to Ormsby & Chapman; 3rd to E. D. George. Boar, over one and under two years—1st to Geo. Weldrick; 2nd to E. D. George; 3rd to Ormsby & Chapman. Boar, over six and under twelve months—1st to Jos. Featherstone; 2nd to D. Decourcy; 3rd to R. Dorsey. Boar, under six months—1st to H. George & Sons; 2nd to Geo. Weldrick; 3rd to R. Dorsey. Sow, over two years—1st to Jos. Featherstone; 2nd and 3rd to R. Dorsey. Sow, over one and under two years—1st to Geo. Weldrick; 2nd to Jos. Featherstone; 3rd to D. Decourcy. Sow, over six and under twelve months—1st to E. D. George; 2nd and 3rd to D. Decourcy. Sow, under six months—1st to Jos. Featherstone; 2nd to H. George & Sons; 3rd to R. Dorsey. Boar and two sows—1st, to Jos. Featherstone; 2nd to R. Dorsey.

Veterinary.

For the CANADIAN LIVE STOCK AND FARM JOURNAL.

Navel or Joint-ill.

By F. C. GRENSIDE, V.S., GUELPH.

A subscriber inquired in the August number of this journal for information regarding the nature of the trouble from which his foal died. From the symptoms given we are of the opinion that the young animal suffered from the malady usually designated by the term "Joint-ill" by veterinarians. From the fact that foals quite frequently suffer from this disease, and that the death-rate is very high amongst those thus

affected, we consider the subject of sufficient importance to be dealt with at some length.

This affection usually shows itself before the foal has attained the age of two weeks, but in other cases a month may elapse. Sometimes the first symptoms of ill-health that present themselves are the loss of vigor and activity, the animal becomes more or less dull and languid; and the coat loses its sleekness, showing a dry staring condition. More marked, however, is the stiffness occurring in one or more legs, with swelling about the joints, particularly the hocks, stifle and knee joints. The swelling is at first moderately solid, pressure to it giving much pain; but after a time it begins to soften, and fluctuates upon pressure. If not opened it will after a time usually burst, and discharge a thin yellowish-white matter, containing shreds of solid tissue; very often the skin over the abscess will slough off in considerable sized pieces, and expose a raw surface.

In some cases the swelling around a joint will disappear, and be succeeded by an enlargement in another situation, but more frequently all tumefactions remain, several co-existing. Much astonishment is sometimes expressed at the enormous size, and the large quantity of fluid contained in those abscesses. We have seen fully a quart discharge from an abscess in the region of the stifle. Another usually well-marked symptom is the increased frequency in breathing, indicating with other signs the great fever that exists.

Although the animal is evidently suffering a great amount of pain, and is experiencing well marked depression and exhaustion, if raised to the teat it will usually suck, owing to the great thirst that the presence of the fever causes. The amount of nourishment consumed is not, however, sufficient to prevent rapid loss of flesh in the face of the fever, and drain upon the system caused by the large abscesses formed.

Some authorities have observed and recorded a discharge from the nose, and enlargement of the glands below the jaw. Diarrhoea also often occurs as a complication, and reduces the ebbing strength of the patient.

Some patients do not survive an attack more than two or three days, while others live as long as two or three weeks. Occasionally a case recovers, but fully seventy-five per cent. succumb. Many theories have been propounded to explain the nature of this serious disease, but the explanation given by Bollinger, an eminent veterinary pathologist, is generally accepted as being the correct one at the present time.

Bollinger's opinion is deserving of much respect, as he has had extensive opportunities of observing cases and making *post mortems*. He has come to the conclusion that the disease, the symptoms of which have been described, has its origin in the "navel string." That the exposed end of the cord becomes irritated from some cause, as a bruise or injury, exposure to cold and wet, and particularly to filth, as litter, manure, and urine.

The end of the "navel string" of a newly-born foal is an unprotected and, to some extent, sensitive structure, which naturally shrivels up and drops off; but if it becomes irritated instead of shrivelling up it takes on an unhealthy character, becoming inflamed and festered. An unhealthy state of a wound is always favorable to the attack of germs that are constantly floating in the air. If these germs gain a foothold on a living tissue they are apt to be absorbed, and thus gain access to the blood current and be carried to all parts of the system, and producing

what is ordinarily called blood poisoning. The inflammation of the end of the navel string extends, and involves the vein that is continuous with it up the liver. The coat of it become much thickened and a large clot is present in it. Now this appears to be the centre from which the poison is distributed throughout the system, bringing about marked changes in different parts, which can plainly be seen in connection with the joints, but which are also visible in the internal organs *post mortem*.

Although so little success is experienced in the treatment of "Joint-ill," a great deal can be accomplished in the way of preventing it.

First and foremost, attention to cleanliness is necessary. In mild, dry weather when the foal is dropped in the field, we seldom encounter a case of "navel ill;" but when it has to be housed, and it is kept in a box foul from any cause then cases are common enough. There should be no accumulation of filth below the floor of the box, as is often the case. The box should be cleaned out at least once a day, and it is a good plan to dust the cleanly-swept floor with land plaster. Short straw is better than long as it does not bunch so much when used as bedding, and is more easily kept dry. The litter should be shaken up two or three times a day, so as to insure a *clean dry* bed for the foal.

Many attendants are too fond of putting ligatures around the cord with the idea of arresting bleeding. This in some cases leads to irritation, and may operate as a cause of the trouble under consideration. It is seldom that sufficient bleeding ever occurs to do any harm. If the cord does not dry and shrivel up as it should do, it should be washed clean, and a five per cent. solution of carbolic acid freely applied to it. This application is a safe precaution in any case, although frequently unnecessary.

In some cases the inflammation is confined to the end of the cord when it remains red and moist; no serious harm resulting, but there is always a danger of it extending and involving the vessels continuous with it inside the belly, when there is cause for apprehension.

The Farm.

No better criterion of the skill and industry of the workman is known to us than the condition of the tools with which he labors. It is not a mere matter of sentiment to have the ploughs, cultivators, etc., bright and clean and in the best of running order, but it simmers down to a question of dollars and cents. Now that so many implements are being stored away, a word as to some of the rust preventatives may not be amiss. A mixture, to be applied with a paint brush, that has been used extensively, is made by dissolving one ounce of resin in four ounces of linseed oil, and this is while hot mixed with a quart of kerosene oil and well stirred. A simple and effective method is to apply to the parts liable to rust a good thick coat of lime-wash. A mixture made by dissolving an ounce of camphor in some turpentine, and added to four ounces of lard and one ounce of pulverized black lead or stove polish and completely mixed, has been recommended for this purpose.

THE value of fine bone meal is much greater than of that which is coarsely ground, for the reason mainly that fine bone is readily decomposed and taken up by plants, while the former may lie in the ground for years before it becomes available as plant food. So

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great is this difference that in the New England markets nitrogen of the finest bone meal is worth 16½ cents per pound, while that in the coarsest is valued at 8½ cents, and the phosphoric acid is valued at 7 and 4 cents respectively, in the two grades given above. It is also well to remember, as stated in a report recently issued from the Experiment Station of Connecticut, that one of the cheapest sources of available nitrogen and phosphoric acid is now found in very finely ground bone. How surely the developing light of modern science is chasing away the mists of ignorance that hung over not a few of the practices of other years, in the little use that was made of the home sources of fertility. We remember when the practice was common of throwing in a lot of bones around the root of a newly-planted grape-vine. Well, the custom was a little better than that of allowing the bones to bleach around the dog kennel, but how very much inferior to the practice of applying finely ground bone meal in preparing the ground for a grape-vine. When bone meal suitably ground is about double the value of that not so prepared, it is of vital importance that the former is secured rather than the latter.

In preparing seed grain for sowing it is important that the farmer by judicious winnowing sifts out all the small and light seeds. The size of seed has an important influence on germination. It has been found as the result of carefully conducted tests that large seeds, as a rule, germinate earlier than small ones, and that the germination is decidedly more vigorous. This is a matter that every farmer has very largely under his control, as seed is generally selected from stocks grown on the farm. There is no loss connected with the operation, as the small grains sifted out can be fed on the farm. It is well to bear in mind, however, that early germination is never so important as *vigorous* germination, and this is sure to follow the use of well-developed heavy seeds, the other conditions being right. Sometimes seeds that are immature, and therefore light, will germinate more quickly than those fully matured, but the blade sent up is delicate and lacking in vitality. Like the weak man carrying a heavy burden who hastens to get to the end of the journey, and so exhausts his strength, these immature seeds endeavour to send up a quick growth which they cannot maintain. Selection from the best and of the best, cannot but influence in a salutary manner the processes of plant growth, and so retard, if it does not altogether prevent, that constant tendency to deteriorate that seems to be the heritage of all kinds of cereals. Seed thus carefully selected and sown on clean soil properly prepared, must have an immense advantage over that selected simply from the common heap imperfectly cleaned, and sown in land it may be polluted with weed seeds, which from the day of sowing are prepared to fight for possession until the day of reaping.

The Cultivation of Mangolds.

It is not generally understood that nearly all the work of preparing the ground for mangolds should be done in Autumn, but yet it is so. Mangolds cannot well be sown too early in the spring after the ground has become sufficiently dry to work. If sown thus early the dampness that is in the ground at that season renders germination very sure, whereas the dry weather of later spring makes this very uncertain. It

is a matter of prime importance, therefore, to have nearly all the work of preparation done in Autumn.

The mode of preparing the ground will vary some with the nature of the soil, but in most soils the following course of procedure will answer: Plough shallow just after harvest for the purpose of cleaning the land, and harrow soon after to promote new germination. If foul with thistles use the broad-share cultivator some weeks later. Then apply good barnyard manure at the rate of fifteen loads per acre, and plough deeply. In the spring plough again, and then form the drills unless the soil should be open and loose, in which case the drilling may be done after a good harrowing or cultivating. If the soil is leechy the manure should go on after the last ploughing in Autumn as a top-dressing. In this case ploughing in the spring before drilling will be a necessity in order to bury and incorporate the bulk portion of the manure.

If, however, the soil is stiff, the land had better be ribbed after the last ploughing in Autumn, and a sub-soil plough run between the drills. In the spring these drills can be simply harrowed lengthwise with a light harrow and then the seed sown at once. The ground in this case will not be so easily kept clean as where it is ploughed in the spring, but owing to the early period at which the sowing is done much more time is given for this process, which fully counter-balances the other loss. Germination in the latter case is just about certain, and in strong soils the one difficulty in securing a good crop is to secure good germination.

Fertilizers, as superphosphates and salt, may be employed with much advantage on hungry soils. And salt renders excellent service on any soil. Indeed it may be considered almost a food for the mangold. It is to be regretted exceedingly that the salt combination has increased the prices so much that its use must of necessity be more restricted on the farm. The accursed ring which have drawn down upon themselves the execrations of all good men are fattening at the expense of the hard-earned tillers of the soil.

But to return to the mangolds. They will make good use of 400 pounds of salt to the acre. The simplest method of applying both the salt and superphosphate is just before forming the drills, when this is done in the spring; when done in Autumn the artificial fertilizers should be sown in the drill, and this may be done when the seed is sown. Horse-hoeing may be done with advantage as often as there is time for this. It should be done sufficiently often to keep the ground moist, and quite free from weeds. The mangolds may be thinned to from 12 to 18 inches according to variety, when about three inches high, and no weeds at any time should be allowed to grow.

The mangold feeds upon a wide range of soils, light sands and stiff clays being the least favorable to its growth, especially the former. Medium soils with just enough of clay to give them tenacity, and to provide mineral constituents and moisture are best. There are but few parts of Ontario where mangolds will not grow fairly well if only cultivated properly. Good crops of them can be grown on soils too heavy for the successful cultivation of the turnip.

Those living in clay sections, especially where the land is not well under-drained, will do well to prepare their drills in the fall. The soil in the drill is then reduced to a fine tilth by exposure during the first periods, and in this seed-bed, which is also warmed by the early spring suns, there is almost certain germination. Where this is not done the ground turns up cold and cloddy, and requires weeks of exposure before

a like condition is induced, by which time it is too late to sow the mangolds.

It is a matter of much moment to the farmer on strong clays that he can grow mangolds. He cannot grow turnips, nor can he feel sure that he will get corn, but so long as he can get a good crop of mangolds he has an important adjunct in the rearing of good stock.

Soaking the seed from 24 to 48 hours prior to sowing facilitates germination. The seed thus soaked may be dried by spreading it on a floor, and when partly dry sprinkling it with ashes, sand, or powdered charcoal. Unless the seed is soaked the germination is likely to be irregular.

Attention should be given to the variety selected for sowing. In soils that are deep the long varieties give the best returns, but in those that are shallow or with subsoil very heavy the Globe varieties should be selected.

When harvested they should lie in the field in heaps a few days before drawing, and these should be covered with tops to protect from night frost. They are very susceptible to injury from frost, for which reason they should be harvested early.

It is a mistake to feed mangolds early in the season where this can be avoided. They improve with age up to a certain limit; the amount of sugar contained in them increases until they are several months old.

Increased attention should be given to the cultivation of the mangold. They are a grand food for milch cows, breeding ewes, suckling lambs, and sows both before and after farrowing. Where the cultivation receives sufficient attention growing them is almost equal to a summer-fallow for cleaning the land. Owing to their deep habits of growth they bring up plant food from the subsoil, and a crop of barley following them is almost sure to do well. The grass following the barley is likely to do equally well.

Artificial Fertilizers.

These fertilizers will of necessity be used more and more as the country grows older. The selling of crops from year to year with the constant depletion of fertility accompanying it will render this an imperative necessity. In the neighborhood of towns and cities artificial fertilizers must of necessity be the principal resource of farmers and gardeners, who, as a rule, sell the bulk of their crops off the place every year.

Years ago we took the stand that the first duty of the farmer in relation to fertilizers was to make the best possible use of all fertilizers made upon the farm, before any should be purchased from abroad. We have in no way modified our view in reference thereto, but we take it for granted that many of the tillers of the soil are thus provident, and still want supplies over and above this to enable them to grow the crops they are seeking. It is a matter of thankfulness that we have manufacturers of fertilizers in this country to supply in part at least the growing need, and moreover we have a reasonable guarantee that these are not adulterated, since we have an inspector whose duty it is to test these whenever samples may be sent to him.

The necessities of the New England States, because of the poverty of their soils in many parts, has led the farmers there to give much attention to the manufacture and use of artificial fertilizers, and the practice of many of the farmers purchasing the raw materials and

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mixing for themselves has of late met with considerable favor.

This practice may be attended with some disadvantages, but it has its advantages as well—the principal one of which is that it enables the farmer to adapt the constituents of the mixture to the exact requirements of his land. One having soil rich in potash may not require to use a fertilizer containing so large a percentage of this as those in the market contain, and by the purchase of suitable ingredients may therefore adapt the mixture precisely to the requirements of his land.

It is also claimed that he can prepare the mixture more cheaply than he could purchase the same from a manufactory. We receive this statement with some reserve as things can always be manufactured much more cheaply when done in a wholesale way, and the difference is usually sufficient to cover the additional cost of placing the article upon the market.

There is another advantage that should receive consideration. When the ingredients are purchased separately they can be more easily analysed than in a mixture, and therefore inferior forms of nitrogen, phosphoric acid and other principal fertilizing ingredients are more easily detected.

We are not quite sure if it is the duty of our chemical professor at the Ontario Agricultural College to do work of this kind for the farmers, but if it is not, some provision should be made for work of this kind. This has been done at the Connecticut Agricultural Experiment Station at New Haven, where a chemist gives his attention to work of this nature when so required.

We can see many advantages that will accrue to the farmers who engage in work of this character. It must react very beneficially upon their intelligence in relation to their calling. No sane man will engage in such a work without having a fair knowledge of the requirements of his soils, and of the nature of the action of the principal ingredients that promote plant-growth. Before he can do this then he has studied both, and the knowledge thus acquired will but whet the appetite for more.

Before the farmer has obtained this knowledge he should apply artificial fertilizers only in a tentative way. When he finds the results satisfactory he can go on and extend the work.

There is one class of manures, however, that but few farmers can make any mistake concerning so long as they get them on or in the ground soon after they are made, that is barnyard manures. Where they may not be able to comprehend the value of tankage, sulphate of ammonia, or bone black, they may have a very intelligent idea of the value of bran and cotton seed meal to produce flesh or milk, and to produce good crops in the manure made from them. Those who purchase these and similar ingredients safely and feed them intelligently will never be disappointed in the results; but because this is true it does not follow that it would not be eminently wise on the part of some to mix artificial fertilizers for themselves and on the part of others to purchase and use those already on the market.

Seed Germination.

Every farmer knows or ought to know how important it is to sow only seed that is good in every respect. In the case of that grown at home, if he allows it to mature fully, and if the growth has not been hindered

by adverse conditions, he need not doubt for a moment that it will nearly all grow, especially in the case of cereals. When the seed is purchased it is different. He then usually knows nothing about the conditions under which it was grown, and usually in such instances it is a wise precaution to test its vitality. We have known instances where whole fields of barley failed to germinate, the seed having been purchased. Its vitality had been destroyed in some leaching process, with the object of improving its color. It should be remembered, also, that the vitality of grain that has been heated to any considerable extent in the mow before, or in the granary after threshing, is so seriously injured that sowing it is unsafe.

Where there is any doubt about the germinative power of seed it should be tested. The best place for doing this is at home, and by the farmer himself. There can be no great difficulty about selecting a few grains of seed, placing them at a proper and equal depth in the soil, and noting the time and condition of their appearance. That the seed germinates simply is not enough. The sower should be satisfied with nothing less than robust germination, for a sickly germination is of but little value. We have read of experiment stations making no little ado about the service they were rendering the country in testing the germinative power of frozen grain, and of seeds sent them at sundry times and in sundry places. The seed testing departments of experiment stations have a loftier mission than this. It is their province to investigate and determine the many conditions that affect germination rather than to ascertain what percentage of seeds will grow out of a given number, which it may please any Tom, Dick or Harry in the country to send them who wishes to get his name into print.

The field of investigation to which we have referred is a wide one, and we are glad to see that the experimental station at Cornell University has entered it with the apparent determination to give us wheat rather than the chaff of so many so-called seed tests of the past. In a bulletin recently issued by that station the influences that they have found to affect germination are those of temperature, moisture, soaking before sowing, soil, light, weight of seed, color of seed, and latitude.

The experiments in reference to temperature determine that when the same was constant and kept about 74°, germination was more rapid than when the temperature was variable. This knowledge will, of course, be of practical value only to those who have hot-houses, as the farmer is at the mercy of temperatures that are sent him. The same remark will apply in the case of the tests with varying quantities of water, in which it was ascertained that the amounts of water used in green-houses ordinarily is excessive during the germinating period.

In the tests made by soaking seeds before sowing, it was found that the seed soaked germinated more rapidly than that sown dry, but that the total percentage in sprouting was not materially different. Carrot seed, soaked 36 hours, germinated more rapidly than that not soaked but 24 hours. We must not conclude, however, that because the total percentage in the sprouting was about the same in the end, that so it would be in field practice. In the tests made there was a sufficiency of moisture in the soil at all times, a condition of things which the farmer cannot command. In some conditions of soil the advantage the soaked seeds would have over those not soaked would amount to the difference between getting a crop and not getting one. When dry weather is coming, if soaked

turnip seed is sown at once on freshly made drills germination is almost certain; whereas if the seed is not soaked, germination is precarious.

It was found that seeds exposed to light during the process of germination sprouted much more slowly in most instances, and in some instances refused to sprout at all. From this it follows that harrowing grass seeds with a light harrow when sown in spring on fall wheat or rye fields is a commendable practice, in keeping with results obtained by farmers who have practised this method.

The effects of soil and soil-conditions upon germination are very marked. Every farmer knows that soils over or under moist, or baked, are unfavorable to early germination. It is therefore important to give close attention to this matter at the time of sowing. When grain germinates readily and soon makes a good "stand," the chances of a crop are so much better than when it comes up feebly and irregularly, however favorable the after conditions may be.

Here, too, the farmer in field practice is much at the mercy of the elements, but not wholly so. He can so work his land ordinarily that it will have a fine tilth at the time of sowing, which usually means the requisite amount of moisture for favorable germination, and he can further improve permanently the mechanical condition of the land by judicious draining. When impaction follows sowing from heavy rains, he can, in most instances, come to the rescue by a judicious use of the harrow.

Prompt vigorous germination is an important factor in all successful grain growing, and every condition that bears upon this should receive the careful attention of the farmer, so far as this may be in his power. Periods of stagnation of growth are injurious at any time in the life of the plant, but are probably relatively more injurious the nearer they occur to the commencement of its growth.

Land Plaster or Gypsum.

So long has this fertilizer been in use that it is said to have held an important place in the practice of the ancient Greeks and Romans. However this may be, perhaps the first time it was brought to notice in America was through the story told of Benjamin Franklin, of whom it is said that desiring to strikingly impress his neighbors with the beneficial results accruing from its use, he wrote in his clover patch with gypsum the words, "This has been plastered," and this text the extra-fed plants, by their more rapid growth, displayed in bold relief to all observers.

From a knowledge of its composition the inference would be drawn, and it would be a true one, that this substance is more of a stimulant than a direct plant food. It is made up of the following: Lime, 32½ parts; sulphuric acid, 46½ parts; and water, 21 parts in one hundred. It is a substance, however, that is sometimes subjected to great adulteration, as it was found at the Wisconsin Experimental Station to vary from one to fifty per cent. in impurities, which generally consisted of carbonate or silicate of lime. From the composition of this substance it may be seen that the only elements of value as a plant in it are the calcium in the lime and sulphur in the acid. But these, however, are usually, and the lime especially, very abundant in all soils. Gypsum has, as is well known in practice, a very beneficial effect upon nearly all leafy crops, such as the clovers, etc. Its good effect has been partly accounted for by stating that it frees

Don't forget that if you don't improve your stock, you will go to the wall.

Don't forget that the L.S.J. will help you to improve and care for your stock.

Don't forget that ten pounds of extra mutton on your flock will pay for your Journal for a whole year.

the potash in the soil from its insoluble combinations, and leaves it in a condition easy of assimilation by the growing plants. Some plants, such as the clovers, turnips, etc., also contain considerable quantities of sulphur in their composition, which accounts in a measure for their hearty response to dressings or applications of gypsum. The common method of applying is as a top dressing to clover or turnips, but it is by applying a month or so beforehand, so that the gypsum may have time to act on the substances in the soil, that best results, as a rule, follow its use. It is usually applied at the rate of two hundred to four hundred pounds per acre.

To our mind gypsum has a greater value, however, when used as an absorbent in stables, for when sprinkled over the floor it keeps down all odors and serves to fix the ammonia, which would otherwise escape. On entering a tightly-closed stable on a winter morning the smell of ammonia is very pronounced. It is this gas, containing some of the most valuable manurial substances, that the gypsum prevents from escaping. When gypsum is used, this ammonia is caught by it and a change takes place, the sulphuric acid of the gypsum changes with the carbonic acid of the ammonia compound, and thus a more stable substance is formed. Fittbogen conducted a number of experiments to determine how much of the nitrogen in the fodder was retained in the manure when one or another of the preservatives were used. He found that when no gypsum or other preservative was used there was retained 71 to 82 per cent., while in that to which gypsum was applied there was retained 88 to 90 per cent. This fertilizer can be obtained at a cost of from four dollars upwards per ton, varying with the distance of transportation. At such a price it gives excellent value. The quantity to be used is about one-half pound per day for each horse, cow, or ten sheep. Dry gypsum has no tendency to lessen odors, as shown by the fact that dry ammonium carbonate in powder form and dry gypsum may be mixed together and the ammonia smell is not in the least decreased in strength, but when moistened the reverse becomes the case. In stables this is not a matter of importance, as it is almost sure to become moist. When applying to manure heaps, as is often done to check fermentation and prevent the loss of ammonia, it should be moistened either before or after applying. In purchasing it, if possible, see that it has been kept in a dry place, as it readily absorbs moisture, which will greatly increase its weight. It is also a matter of importance that it be finely ground, as this materially influences its value as an absorbent, and more particularly as a manure. As a rule, it will be found that the light-colored plasters are purer than the darker.

Information Wanted About the Banner Oat.

Editor CANADIAN LIVE STOCK AND FARM JOURNAL:

DEAR SIR,—Through an advertisement in your journal I bought from Mr. John Miller, of Markham, in May last, one bushel of Vick's Banner oats, which I sowed on one-half an acre of well-drained land, and I have just threshed from the crop 30½ bushels. The early season here was very wet, and the rest of my oats and the general crop has only given about one-half the usual yield. I would like to hear from others, through your journal, that sowed this oat if they also have found them to yield exceptionally heavy.

Aylmer, Ont.

E. J. HUTCHISON.

Don't forget that the L.S.J. will tell you how to get this extra ten pounds.

The Dairy.

It is a pleasure for us to inform our readers that we have arranged with our esteemed contributor, Prof. Robertson, of Guelph Agricultural College, for a series of articles on dairy farming to begin in our November number, and run through the winter season. The various phases of this all-important subject will be fully treated of, and we feel assured that our readers will be heartily in accord with us when we say that we could not have consigned the subject to a better authority in such matters than Professor Robertson. Through his labors by voice and pen he has attained the proud position of America's best authority in all matters pertaining to the dairy and dairy farming; and we feel sure that his articles will contribute in no small measure to make our pages more attractive and more instructive during the coming season.

The Prime Features of Good Butter.

Good butter carries with it invariably its own bill of sale, while bad butter is always, unless in the absence of the good, a drag upon the market. If either the home or foreign trade is being supplied the object of the dairyman should be to build up a reputation for butter of a first-class quality so that the purchaser may look with firm faith on the maker's brand as a surety for the quality of the product which he is about to buy. Extremely valuable though a good name may be in all business departments, yet it is doubly so for the buttermaker, for the reason that no other farm product may vary so much in quality as butter; ranging as it does in all degrees of excellence from the vilest of axle grease to the delicious gilt edge article. It does not take a purchaser long to find out the worth of a certain brand from a certain maker, and as soon as the dairyman can make his brand the synonym for a high class product the quicker will he secure a profitable and lasting trade.

It must be apparent to every observer that the home trade is not cultivated as it should be. It requires that a product of the highest order only be offered, and this is not in the majority of cases the nature of the output of our many farm dairies. The demand coming from our many cities is strong, and it is such as to respond readily to cultivation. The butter trade is one that depends almost solely on the quality of the output. The more choice the latter the greater the consumption, and hence the stronger the demand, and on this account do we make the assertion that this part of the dairy cannot be overdone. While there is a home demand largely dormant, what shall be said of the vast market across the ocean that annually requires millions of pounds of prime butter? To secure the top prices of this market it is clear that the standard of Canadian butter must be considerably raised, for from the consular reports we learn that American butter is low in their estimation, as evidenced by the fact that American butter sells for 6.60c. per lb. less than the Danish, 6.40c. per lb. less than the German, 5.91c. per lb. less than the Swedish, and 5.23c. per lb. less than the French. These figures teach us that to compete with these we must produce an article superior to theirs.

As to what constitutes good butter we shall endeavor to briefly outline. The first prime feature and the most important for butter to have is a pleasing flavor. Butter of flavor is so self-assertive as to make itself

Don't forget that if you advertise, you are likely to get ten purchasers abroad for one among your neighbors at home.

known as such to the buyer at once. The terms rosy, creamy, nutty, aromatic, etc., are often applied to butter, and in many cases those that use them do not understand their full force. The rosy flavor is said to be due to the volatile oils, and that it is only present in fresh butter, as it vanishes after the butter becomes from one week to two months old. The nutty flavor is best distinguished just after the butter has been washed and in a granular state before salting. This is a peculiar flavor of butter, markedly distinguishing it from oleomargarine and kindred products through the beefy flavor of the latter. For flavor about forty points out of one hundred obtainable is a just valuation. The body comes next in order with a value of twenty-five points out of a possible hundred. This refers to the firmness and solidity of the butter as told by the trier. If on running the trier in the tub and turning it around once it is found that the butter in the groove is perfectly round then it indicates that the body is all that could be desired, but if it is oval or flat it shows softness of body. Texture is placed at ten out of one hundred points. By breaking a small piece of the butter the texture may at once be seen. It should break like a piece of steel, showing the granular structure clearly. The body and texture are very important features, and have a strong bearing on the duration of the flavor, for if the former are not of merit the excellent features of the flavor do not last for any length of time. The color also has a marked effect on the disposal of the butter. Not only should it be a bright straw color but it should be clear and uniform throughout the whole mass. The salting will effect this materially if not carefully guarded against by distributing it evenly throughout. The color has been given a valuation of fifteen points. It is a question whether this is not too high, considering the fact that this requirement may be easily satisfied by the addition of annatto or other coloring matter. The neatness of the package, making the butter look attractive, and above all cleanly, is a point of prime importance. For this ten points at least should be allowed. On prints or small packages it is often noticeable that the salt gathers on the outside having the appearance of frost, which materially detracts from the looks of the butter. This is caused by the overabundance of moisture in the butter, which dissolving the salt carries it to the outside, and there evaporating leaves the salt in little crystals which gives the butter an unattractive appearance as well as flavor too salty for the average taste.

The Thermometer in the Dairy.

Though this valuable instrument, the thermometer, is within the reach of all, yet it is surprising how few make use of it in their work. We refer in the latter clause to the butter-makers of the farm, for it would be a practical impossibility for the factory butter-maker to turn out the product he does without bringing the thermometer to his aid. To guess at the temperature of the water in which the milk cans are set is a slipshod method, for no matter how experienced the hand may become by long continued practice in determining the degree of warmth or cold, it is nevertheless very apt to mislead and will undoubtedly give very diverse readings. Then, again, the matter of the temperature of the cream is a very important one, of far more concern, we venture to say, than even some of the best of butter-makers are inclined to put upon it. The temperature at which the cream is churned influences more or less, for weal or for woe, the per

Don't forget, too, that their prices are likely to be better.

centage return in butter, the quality of the butter, and perhaps more strongly than any of these, it has a marked influence on the time it takes the butter to come. How often we have heard the question put, "Why does the butter not come?" In nine cases out of ten it is due to the low or high temperature of the cream when put in the churn. The temperature of the cream markedly affects the adhesive power of the butter globules. The agitation of the cream brings the butter globules together, and if the temperature is a proper one, they adhere one to the other and gather in groups until they become visible to the eye in small pellets, when churning should cease. But let the temperature of the cream be too low and these very small lumps of fat that are free in the cream harden, and as we would naturally infer from our knowledge of other fats, they will not adhere to each other, so that instead of taking only half an hour or so, the butter eventually comes, after much friction to heat it up, in two, three, or even more hours. On the other hand, when the cream temperature is too high, which occurs as often in summer, unless proper measures are taken to prevent it, as the reverse happens in winter, the butter globules, being very soft, do not remain in pellets, but with the dashes of the churn become distributed again throughout the mass of cream.

The proper temperature at which to churn the cream shifts within certain limits according to its condition. It is never fixed, but it is for the butter-maker to use his skill and knowledge gleaned from past experience in deciding on the temperature for each separate batch. The average temperature is about 60° Fahr., the range being from 55° Fahr. in midsummer to 65° or even 70° in midwinter. The difference in the nature of the food fed the cows at these different seasons is the main cause of this variation. There are two ways that are commendable for the changing of the temperature just before churning. The crock containing the cream may be set in a tub containing either cold or hot water, as desired, or what may be used in the majority of cases, a small quantity of water at a suitable temperature may be added to the cream. This also materially aids in bringing the butter quicker, as the addition of water lessens the stickiness of the cream, and the result is the butter globules gather quicker. Our advice to all endeavoring to make a uniform butter of the highest quality is to get an ordinary bulb thermometer, not one attached to a tin back, and use it continually.

Butter Conferences.

It must be apparent to all who have watched the course of our agriculture that the dairy interest has sprung from a lowly state into a position of the highest prominence during the last decade. This has been brought about almost solely by the teachings and enthusiastic work of our Dairy Associations. Through their agency our cheese product has become a source of great revenue to our farmers, due to the marked change made in the quality of our cheese, through the labor of these Associations, and the freely given assistance of individuals. Our butter trade, home and foreign, has not advanced as rapidly owing chiefly to the difficulty of pressing home to our farmers the correct principles of butter making.

Our Associations are laboring hard to remedy the present state of affairs, but the progress must necessarily be slow owing partly to the difficulty of reaching those who keep the average of the quality of our

butter output below what it should be, and also largely to the fact that even those who attend these meetings do not put into practice the principles there expounded by able speakers.

An effectual means, to our mind, of overriding both these difficulties is through the establishing of butter conferences. This scheme has been in vogue with our more progressive American neighbors, and is simple in plan and effectual in its work. The plan they have adopted is to send out two delegates to attend farmers' meetings or, in some cases, substitutes, the one a skilled butter-maker, who churns the cream supplied by local authorities and makes it into butter before his audience. The whole process, from the ripening of the cream to the packing of the butter, is done openly, and when it is completed the other personage explains the reason for each step, emphasising the importance of observing all the principles and also answering any questions that may be put. The result of this is that thus true principles of modern butter-making are firmly pressed home, and without a doubt carried into practice by the receiver.

As an instance that will perhaps more strongly place before our readers the benefits from this method of teaching than any amount of logic, we cite Colonel Curtis, an expert dairyman of New York State, as saying, that in two years they have so advanced the people of his State as butter-makers that when they began to hold butter conferences Western creamery butter brought two cents per pound above that of New York State, but now the latter is able to sell at two cents a pound above the Western. Before the end of 1889 it is stated that the New York Dairyman's Association will have held under their auspices some thirty-eight butter conferences in different parts of the State.

Some may demur at expending too much on our dairy interest, but the expenditure of the Governments of Sweden and Denmark, limited in their field and not overly blessed by a bountiful nature, should put to shame all such. A few brief facts as to what some European countries are doing may not be amiss. Germany has thirty dairy schools for the purpose of educating young men and women in this branch of work, and they are all supported by the Government, the tuition being free. Denmark also has a great number where the pupils remain for short periods at a small cost. In Sweden they pay students for learning this work on dairy farms, giving thirty-two girls yearly £8 6s. each for learning butter and cheese making. Sweden appropriates each year the large sum of \$25,000 for dairy instruction. The outcome is that the butter-makers of Denmark and Sweden get the highest price in the British market for their butter, because of its high uniform quality.

We do not quote this as a plea for a greater expenditure, but to lull discontents, for the work could be carried on with but very little further expenditure, if any. We have at present four factory inspectors that are only employed during the factory season. Now these same men who have been chosen for their experience and knowledge of their work could, in part at least, help at these conferences during the winter months at our Farmers' Institutes, or special meetings for that matter, in the several electoral districts of the Dairy Associations. One of these instructors, accompanied by another person versed well in the principles and practice of butter-making, and an able speaker, would be all that would be necessary. This scheme is worthy at least of the attention of our dairymen, for the fact is paramount that there is a vast market await-

ing cultivation, and that may only be accomplished by raising the butter standard of butter factories and farm dairies.

Swiss Cattle.

Switzerland has long been noted for the close attention given by her children of the mountain and valley to the dairy interest. Wherever this is done in a marked degree we find improvement in stock used for the purposes of the dairy. Her people export no less than seventeen kinds of cheese to a great many countries, a striking comment on the amount of attention given by them to the manufacture of the products of the dairy.

Of her cattle there are two distinct races. One of these, the Berner spotted, has its origin in the valleys of the Simme, the Saane, and the Kander, in the canton of Berne. Of this race there is an offshoot, numerous in the neighboring canton of Friburgh, called the Freiburger Schwarzwich, marked similar to the Berners cattle, except that the spots are black instead of yellow or red.

The origin of the other race, the Brown Schwyz, commonly known in America as the Brown Swiss cattle, is traced to the canton of Schwyz, but they have overspread the whole of Appenzel, Eastern and Central Switzerland, and westward as far as the canton of Argau. This breed is of great antiquity, the skulls that are found along with the bones of the prehistoric cave-dwellers resembling very closely those of the breed at the present time. The Berners are supposed to have come originally from the Netherlands, having a near resemblance to certain breeds of Dutch cattle.

We do not know of a single Swiss animal in the Dominion, but in the State of Connecticut Brown Swiss cattle are numerous. The breeders there have formed themselves into an association, and as early as 1884 published Vol. I. of their herd-book, the membership of the association at that time numbering 38 persons. Since then they have spread to many other parts, indicative of a justly growing popularity.

The Brown Swiss cattle are mouse-colored, and the nearer the approach to this hue the purer the animals are considered. The cows are large, round, and plump in form, with straight top-line. The large, mild, black eyes indicate a docility that has almost become proverbial. The horns are white and smooth, but tipped one-third of their length with black, and are rather short than long. The ears are large and lined with an abundance of cream-colored hair. The neck is just a little too short and thick for the very best milk performance, but the head is finely shaped, a white ring running round the black nose. The udder is white in color, large, well-shaped, and the milk veins are very prominent.

The ordinary weight of the cows is from 1300 to 1400 pounds, which is considerably in excess of the average live weight of the Jersey, Guernsey, or Ayrshire, and something more, we apprehend, than the average of the medium of the Holstein. The average of the cows exhibited at a fair held at Langenthal, Switzerland, some years ago, gave the height of shoulder as 52 inches, the girth behind the shoulder as 77 inches, and the length from base of horns to the root of the tail 80 inches.

The distinctive markings of this breed are very uniform, indicative of a long continued breeding without any admixture of foreign blood. In addition to

Why then should you hesitate to put in a "Breeder's Card"?

Why hesitate even if you have only a few animals to sell?

The extra profit gained will pay for the Card three or four times over.

the meal-colored band around the mouth, a yellow strip runs along the middle of the under lip, crosses over to the upper lip, and extends up the sides of the nostrils, and the switch-tongue and hoofs are black.

These cattle are now being imported in large numbers into Italy, Germany, and Russia. There is a growing demand for them in America, and Great Britain and Spain have each imported a few.

In the Dominion, with its fine stretch of thousands of miles from sea to sea, embracing so large a variety of soil and climate, and much of which is pre-eminently adapted to dairying, it is highly probable that the Brown Swiss will yet find a home.

In adaptability to purposes of dairying there is not a little resemblance between Quebec province and Switzerland. Both are mountainous. Both have rivers rushing on with a haste that can brook no delay. Both have wide, deep valleys where rich pastures grow, and both have rugged hills where the foot of the grazing cow is far more in place than that of the ploughman. The winters in both are stern. The historic associations may be different. Quebec has no William Tell of departed centuries, or no hero of "Sempach on the Lake," but that will not hinder the marvellously rapid growth of her grasses in springtime, nor their adaptability to the purposes of dairying.

It may be objected that the Ayrshires are there now, the Guernseys are there, and the Jerseys are there. We answer the cows of no one of these breeds averages 1300 to 1400 pounds in weight. Switzerland has produced a vigorous race, nursed amid the mountain air of her cantons, and fed on the pure milk of the Brown Schwyzers, and the air that has given nerve to her people has also given hardihood to her cattle.

At Cham, in Switzerland, there is a milk-condensing company which uses the milk of 6000 cows per year, and they are only ordinary Brown Swiss cows. The average yield of milk per year is given by the United States Consul of Basle, in the year 1883, as 5315 pounds, and here we are in this Ontario of which we feel so justly proud creeping along with an average yield of during the cheese-factory season of 2673 pounds.

Poultry.

About Eggs.

The standard yield and weight of eggs for the different varieties of domestic fowl have been given about as follows:—Light Brahmas and partridge Cochins, seven to the lb.; they lay, according to treatment and keeping, from 80 to 100 per annum; often times more if kept well. Dark Brahmas, eight to the lb., and about 70 per annum. Black, white, and buff Cochins, eight to the lb.; 100 is a large yield per annum. Plymouth Rocks, eight to the lb.; lay 100 per annum. Houdans, eight to the lb.; lay 150 per annum; non-sitters. La Fleche, seven to the lb.; lay 130 per annum; non-sitters. Black Spanish, seven to the lb.; lay 150 per annum. Dominiques, nine to the lb.; lay 130 per annum. Game fowls, nine to the lb.; lay 130 per annum. Creveceurs, seven to the lb.; lay 150 per annum. Leghorns, nine to the lb.; lay 150 to 200 per annum. Hamburgs, nine to the lb.; lay 170 per annum. Polish, nine to the lb.; lay 150 per annum. Bantams, sixteen to the lb.; lay 60 per annum. Turkeys, five to the lb.; lay from 30 to 60 per annum. Ducks' eggs vary greatly with different species; but from five to six to the lb., and from 14 to

28 per annum, according to age and keeping. Geese, four to the lb.; lay 20 per annum. Guinea fowls, eleven to the lb.; lay 60 per annum.

♦ ♦ ♦

Fattening Fowl For Christmas

As the season of good cheer draws near not a few of our readers may, even at this early date, have their eye on a majestic gobbler, a plumper goose or a brace of pullets to deck their festive board on that most auspicious occasion—a Christmas dinner. Others again besides this desire to have prepared for the profitable market at this time of the year some of their fowl. How to have them in time for this important period is a problem that has before now met many. In methods of fattening fowl we have, perhaps, to acknowledge that our European friends may teach us a lesson, or at least offer some ideas worthy of our practice. A writer in one of our English periodicals, *The Farmer*, describes the whole process, as adopted by them, in what follows:

The fowls to be fattened should not exceed six or seven months old, and the pullets should be put up before they have laid, should be in good condition, and well fed, from their birth up to the day on which they are cooped. Cramming is regarded as the most economical and effectual mode of proceeding. The fowls to be fattened are placed in coops in which each one has its own compartment. The coop is a long, narrow wooden box, standing on short legs; the outer walls and partitions are close boarded, and the bottom is made with rounded spars one and a half inches in diameter, running lengthways of the coop; on these spars the fowls perch. The top consists of a sliding door, by which the chickens are taken out and replaced. The partitions are eight inches apart, so that the fowls cannot turn round. The length of each box is regulated by the number of divisions required, the cocks and pullets, and the lean and the fat lots, not being mixed up indiscriminately, because their rations differ, and the new comers would disturb the old settlers by their noise. The floor beneath the boxes is covered with ashes or dry earth, which is removed every two days with a scraper. The food is chiefly buckwheat meal, bolted quite fine. This is kneaded up with sweet milk till it acquires the consistency of baker's dough; it is then cut up into rations, each about the size of two eggs, which are made up into rolls about the thickness of a woman's finger, but varying with the sizes of the fowls; these are subdivided by a sloping cut into "patons," or pellets, about two and a half inches long. A board is used for mixing the flour with the milk, which in winter should be lukewarm. This is poured into a hole made in the heap of flour, and mixed up little by little, with a wooden spoon as long as it is taken up; the dough is then kneaded by the hands till it no longer adheres to them. Oatmeal, or after that barley meal, are the best substitutes for buckwheat meal. Indian corn-meal makes a short, crumbly paste, and produces yellow, oily fat.

In cramming, the attendant has the buckwheat pellets at hand with a bowl of clear water; she takes the first fowl from its cage gently and carefully, not by the wings or the legs, but with both hands under the breast; she then seats herself with the fowl upon her knees, putting its tail under her left arm, by which she supports it; the left hand then opens its mouth (a little practice makes it very easy), and the right hand takes up a pellet, dips it in the water, shakes it on its way to the open mouth, puts it straight down, and carefully

crams it with the forefinger well into the gullet; when it is so far settled down that the fowl cannot eject it, she presses it down with the thumb and forefinger into the crop, taking care not to fracture the pellet. Other pellets follow the first, till the feeding is finished in less time than one would imagine. It sometimes happens in cramming that the windpipe is pressed together with the gullet; this causes the fowl to cough, but it is not of any serious consequence, and with a little care is easily avoided. The fowl, when fed, is again held with both hands under its breast, and replaced in its cage without fluttering; and so on with each fowl. The chickens have two meals in twenty-four hours, twelve hours apart, provided with the utmost punctuality; if they have to wait, they become uneasy, if fed too soon, they suffer from indigestion, and in either case lose weight. On the first day of cramming only a few pellets are given; the allowance being gradually increased till it reaches twelve to fifteen pellets. The crop may be filled, but before the next meal the last must have passed out of the crop, which is easily ascertained by gentle handling. If there be any food in it, digestion has not gone on properly; the fowl must then miss a meal, have a little water or milk given it, and a smaller allowance next time; if too much food be forced upon the animal at first, it will get out of health, and have to be set at liberty.

The fattening process ought to be complete in two or three weeks, but for extra fat poultry twenty-five or twenty-six days are required; with good management you may go on for thirty days; after this the creature becomes choked with accumulated fat, wastes away, and dies. The fowls are killed instantaneously, by piercing the brain with a sharp knife thrust through the back of the roof of the month. After plucking and trussing the chicken is bandaged, until cold, to mould its form, and if the weather is warm it is plunged, for a short time, into very cold water. A fowl takes usually rather more than a peck of buckwheat to fatten it. The fat of fowls so managed is of a dull white color, and their flesh is, as it were, seen through a transparent delicate skin. Plucking should be done instantly the fowl is dead, as the feathers then come off with the greatest ease, and the skin is not liable to be torn.

The Apiary.

For the CANADIAN LIVE STOCK AND FARM JOURNAL. Out Door and Cellar Wintering.

By R. F. HOLTERMANN, Romney, Ont.

So much has been said upon the subject that it is well-nigh threadbare, however as there are many farmers who keep bees, and who only read agricultural papers having no bee department, a few thoughts here may not be out of place. A man has to be guided by circumstances in the matter if he has not a good winter repository for his bees; there is no use discussing the advantage of indoor wintering unless to induce him to build such a place. A man having but a few colonies rarely cares to do this unless he can kill two birds with one stone, and in building make the repository an addition to some other building. Those who must winter outside should seek to put their bees in shape early, just as it is poor farming to have our stock in the fall of the year out on chilly nights and days, so it is poor bee-keeping to have hives exposed in the fall of the year to all the changes of weather. So much doubtless requires to be done in other departments that one is very liable to neglect the bees or something else under these circumstances. It would

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be well to find out which pays least and drop it. To find out a good way to winter, it would be well to visit some bee-keeper who has for some years made a success of wintering, and follow his plan as nearly as you can. One cannot over-estimate the value of these visits, there are few men who will not tell you what they can if approached in a proper way; take paper and pencil and put down what you want to know, for very often you will go home and make some bad blunder through getting "mixed." Whilst upon the subject it will not be out of place to urge every one to attend all the conventions they can, do not be afraid of an outlay of a few dollars; it will pay you well. The International Bee Association, which meets this year in Brantford, Canada, this December 4th to 6th, and which already promises to be one of the best attended conventions ever held in America, offers an excellent opportunity for every one keeping bees, or intending to keep bees. Information will then doubtless be given by the best authorities upon the subject. The programme is an excellent one; reduced hotel and railway rates have been secured, and if any one wishes for information and particulars upon the subject I shall be pleased to furnish them.

FOOD FOR BEES.

That granulated sugar is a safe winter food for bees no one will deny; that first-class capped clover or linden honey is a safe food for bees but few deny. That fall honey, such as golden rod, bonaset and aster, is a safe food for winter for bees very many dispute. The majority are not always right, yet in this instance investigation will probably show the majority to be correct. No one can afford to feed granulated sugar; it is retailing at 10c. per lb., and the retailer has but a very slight margin on it. Seeding, except whole combs, should be avoided, very little can be said in its favor, and so much against it.

HONEY EXHIBITS.

A visit to the Toronto Industrial Exhibition and the honey building gave us a view of the best honey display, for the present year, made in Canada.

The reason for this is probably that the inducements offered were greater. Every effort was made by the officers to assist exhibitors.

Mr. R. McKnight, Owen Sound, had the nicest display. Mr. McKnight's tastes and means enable him to make a good display.

R. H. Smith, Bracebridge, Ont., had probably the second best display of extracted honey.

Jacob Alpaugh, and E. A. Thomas had a beautiful display of comb honey.

Rev. D. P. Niven, Geo. Laing, J. Davidson's exhibits added much also to the excellence of the exhibit.

Fruit done up with honey, also cake, were shown, and intended to educate the public as to the merits of honey in cooking.

It is rather remarkable that there was no display of bee-keepers' supplies. The wisdom of this may be questionable, and yet at that season of the year bee-keepers purchase but little, and their interest is very slight in aparian supplies. Could they show their goods in the spring of the year in such a place doubtless very many would take advantage of the opportunity. Supply dealers I think should show a few leading lines. A large exhibit is quite an unnecessary expense. The absence of any display in 'ais l.' may lead others to show next year.

At Toronto the honey was very good color, probably never better, the reason of this is because the bulk of it was from linden; the color of this is very clear.

Read the Publishers' Column and see what we will do for you if you will help us.

The flow has been a very fair one, and owing to the scarcity of fruit, honey is, and will be, in good demand. The bee-keeper should take advantage of this and enlarge his market.

Horticultural.

Figw are the persons who have ever made the acquaintance of our exquisite and fragrant white water lily (*Nymphaea*) in its native home but have yearned to transplant it to their gardens. If a shallow place can be found where they are growing along the stream, and one of the large, thick roots secured, this may be accomplished. For to hold them, nothing answers better than half of an old oil barrel. Sink this in the soil, the damper the situation is the better, and fill the tubs about half full with strong loam mixed with thoroughly rotted cow manure. In this place the roots, and cover with an inch or so of clean sand. The rest of the tub is now filled with rain water, which it has been found may be kept sweet until the lilies are well advanced by planting with them a few of the quicker growing water-plants, such as duck-weed. Where a number of these half-barrels are grouped together, it has been suggested that the unoccupied space between them be planted with such plants as ferns, calla lilies, caladiums, and other varieties that love moisture.

Mulching Strawberries.

By W. W. HILLBORN, Horticulturist Central Experimental Farm

The crop of strawberries will very much depend on how well the plants have been protected during the winter and early spring. It is not the severe freezing that injures the plants so much as the oft-repeated freezing and thawing. The use of a mulch of coarse manure, marsh hay, or clean wheat straw, is most effectual in preventing injury from this cause. Oat straw generally packs too closely, and does not admit air freely enough to either soil or plants, especially on heavy land. As soon as the ground freezes in the autumn sufficiently hard to prevent horses and wagon from breaking through the crust, the mulch should be applied. Most of the material should be placed between the rows with just enough immediately over the plants to nearly cover them from sight. Before growth begins in the spring, draw the covering off from the plants and let it remain between the rows until after the fruit has been gathered; it thus serves the triple purpose of keeping the fruit clean, the soil cool, and causes it also to retain longer the moisture gathered early in the season—which is all important to the production of a large crop of fruit.

In localities where late frosts are likely to occur at the time of blossoming, the mulch should be removed just before growth begins in spring and very shallow cultivation given. The soil becomes warmer when thus loosened and the blossoms often escape a frost, when the land is thus treated, which would otherwise injure them to a considerable extent.—*Ottawa Central Farm Bulletin, No. 5.*

Chess (*Bromus Secalinus*).

By J. HOVES PANTON, Professor of Natural History and Geology at Ontario Agricultural College.

The following are some reasons why a person should be ready to conclude that this plant is no exception to others and depends for its perpetuation upon the seeds which it matures:

1. The plant is widely different from wheat in appearance; so much so that botanists place it in the genus *Bromus*, while wheat belongs to the genus *Triticum*. Couch grass (*Triticum repens*) being in the same genus as wheat, comes much nearer in its characters than chess does, and yet no one ever hints that it is derived from wheat. If chess is a degenerated condition of wheat we might reasonably expect some resemblance to the plant from which it was derived.

2. The most devoted evolutionist would not expect to see develop in the short space of a few months, owing to the effect of frost, a plant so unlike in structure, form and habit to that from which it is derived. It is only through long periods of time that such modifications in a plant can take place as to change its character so much that it may be viewed as a new species. But in this case one season brings about such a remarkable change that the plant is ranked in another genus—a more comprehensive term than species.

3. If chess be sown it yields chess. If it were degenerated wheat, and sown under favorable surroundings, it should soon return to wheat; for we observe both in animal and plant life that a deteriorated form will return to its proper nature when conditions are suitable for growth. Some have gone so far as to say chess will not grow from seed, but this is a mistake that can easily be seen by sowing some of the seed.

4. Chess will mature seed under adverse conditions, though the plant be only two or three inches high; while if surroundings are favorable it grows three or four feet high before seed is matured. This may account for its never being seen in good crops, while it may be seeding the ground for a more suitable time, when the crop in which it is seeded is injured by frost; then this hardy annual (the seeds of which possess great vitality) is ready to take the vacant soil and yield a crop no longer hid from the farmer's eye.

5. The conclusions arrived at by all men who make plant life a special study are, (a) that chess is a typical plant, producing seed yearly, which give rise to plants of the same character; (b) that a seed of wheat cannot be sown so as to produce chess; and (c) that chess cannot produce wheat under the most favorable conditions for growth.

6. In instances where parts of a plant, apparently a combination of chess and wheat, were so mixed as to seem but one plant, close examination proved them to be parts of separate plants, and that the apparent union was not real. In some cases microscopic examination has been required to prove it.

7. Wheat has been grown in some places and often winter-killed, and no chess has appeared. There are places where chess is unknown, and wheat in these passes through all the vicissitudes which seem favorable to the development of this weed in other parts where the plant is common. Farmers careful in using clean seed often have winter-killed wheat unaccompanied by chess.

8. Liberal rewards have been offered by agricultural papers to any one who could prove conclusively that chess is derived from wheat, and as yet no successful competitor has appeared, though as high as \$500 was the prize.

With these facts before us, it does seem difficult for a person to accept a theory which demands greater concessions than the most sweeping form of evolution. Though this plant may appear under circumstances difficult to explain, we are forced to believe that if its origin is carefully considered it will not require one to

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pin his faith to views so antagonistic to the teachings of science as those required to be accepted by persons claiming wheat as its source.

REMEDY. The great remedy for chess is to be exceedingly particular about the seed you sow. A few seeds scattered among wheat do not seem to amount to much in the heap, but if they were taken out we would be surprised at the quantity mixed among the grain.—*Extract from Bulletin XLVI.*

Young Stockman's Department.

Prize Essays from Our Boys.

The farm boy has capabilities which oftentimes he does not know that he possesses. They lie sleeping as quietly as his house dog on the rug by the kitchen stove in winter evenings. He does not know that he has them, and we wish to help him to find this out. With this object in view we will offer prizes from month to month for short essays to be written by the boys of the farm, not more than sixteen years of age, on farm topics that will be named from time to time. The essay must be accompanied by the name and address of the writer, and should reach this office not later than the 15th of the month preceding that in which the prize essay will appear. But our prize will be given each month, and in each month will appear the prize essay of the preceding month's competition.

Each essay is not to exceed one column of the JOURNAL in length. The writer can easily estimate the space by counting the words in an average line of a printed column of the JOURNAL, and also of a line of the manuscript which he is writing, and then ascertaining the number of lines of manuscript required for a column of the JOURNAL.

Subjects for Essays to appear in November:

1. Curing Pork for House Use on the Farm.
2. Care of Breeding Ewes from the Time of Housing until Lambing Time.

Subjects for Essays to appear in December:

1. The Feeding, Care, and Management of Fowls during the Winter Months.
2. The Feeding, Care, and Management of a Foal During the Winter Months from Weaning Time until Spring.

To the writer of the essay winning the prize in each of the above competitions will be forwarded by mail, free of cost, any one of the following books. All of which are used as text books at the Ontario Agricultural College, Guelph, and the cost to the retail purchase, about one dollar each:

1. *The Soil of the Farm*, by Scott & Morton.
2. *The Crops of the Farm*, by Scott & Morton.
3. *The Chemistry of the Farm*, by Warington.
4. *Hand-book of Agriculture*, by Wrightson.

This list will be increased in succeeding issues.

Now, boys, put on your spurs and enter the lists. Many of you are capable of becoming leaders and instructors. It would be a shame to allow your talent to rust like the cast aside plow in the fence corner. We will expect a lot of good essays to reach us on the subjects named for November by the middle of October. Don't delay for a single day as you have no time to lose.

Books for the Boys of the Farm.

The boys of the farm who wish to know more than their neighbors cannot do so without they read. They

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must read agricultural papers. They must also read books on farm topics that are carefully written. Now boys we want to make it easy for you to get the books you may want even though you have no money to pay for them. A good honest farmer's boy (and the country has lots of them) is not afraid of work. To any farm youth who will send us the names of two new subscribers for the JOURNAL for one year and \$2.00 we will send by mail, free of cost, any one of the following books which are used as text books at the Ontario Agricultural College, and which cost retail in the neighborhood of \$1.00 each:—

1. *The Soil of the Farm*, by Scott & Morton.
2. *The Crops of the Farm*, by Scott & Morton.
3. *The Chemistry of the Farm*, by Warington.
4. *Hand-book of Agriculture*, by Wrightson.

This list will be added to in future issues. Sample copies of the JOURNAL will be sent to use in canvassing to any one asking for them. In canvassing for subscriptions you may say that we will give the remaining numbers of the JOURNAL for this year free, or from now till the end of 1890 for \$1.00. Who will be the first to send in two orders?

To the Boys of the Farm.

When those engaged in the live stock industry wish to rear animals of superlative excellence they feed them well, and keep them pushing well ahead from birth without any periods of stagnation. Unless this is done with the most unremitting care and constancy no animals can be reared that will capture prizes at any of our leading exhibitions.

On similar principles the boys of the farm are to be reared, who are to be the leaders in the future. They must be fed with a full supply of intellectual food from the earliest period, and it must be given to them with a constancy that knows no periods of rest.

In the hope of doing what we can in the great work of educating our farm boys, we have concluded to open a department to be known as the "Boys' Department." We hope our boys will look upon it as their special heritage. We want them to help us to take care of it, and to tend it as carefully as though it were a part of their own garden plot upon their father's farm. We will plant in it trees of farm knowledge bearing many kinds of pleasant fruits, which will certainly be shared by the boys who assist us in tending the trees.

We would have you remember, boys, that the leaders of the future will be educated men, men who in boyhood have made the most of their chances by eagerly seizing every opportunity for improvement. You may not have the opportunity of going much to school or to college at all, but if you read with care and thought what comes within your reach in relation to your life work, you can with prudent effort bring yourself to the front.

You may be able to manage a team well. Perhaps you grow prize lambs. You may have been the owner of the best kept garden plot in your section of country. If so, we are glad to know it. But we would have you remember that in the future these things will not of themselves make leaders of men. Those who direct others will have to be educated wherever they may get their education. We remind you, boys, that bringing together a few hundred acres of land will not of itself make you men of mark. Winning many prizes at the shows will not of itself make you men of influence, you must have trained minds, and it will be all the better if these are self-trained.

Read the Publishers' Column and help along the cause of good farming.

Now, boys, what we propose to do is simply this we will offer prizes from month to month for short essays on a great variety of subjects relating to every department of the farm. The subjects of these essays will embrace the breeding, rearing, feeding, and management of live stock; the cultivation and growth of farm crops; the orchard; the garden; the apiary; and the dairy; and indeed every feature of farm life relating to growth and production. The essays of the successful writers will be published in this department.

Again, we know, boys, that many of you have given much attention already to the growth of young stock, and to the growth of many other things, and we would like to know what your methods are; we want other boys to know as well, for if you can assist other boys in becoming better farmers the very thought of this will give you pleasure. To enable you to do so we invite you to send letters for publication in this column. If you fed a pig from an early age and made it to weigh 160 pounds when dressed at six months' old, tell us how you fed it. If you raised water-melons large enough to make the teeth water to look at them, tell us how you managed, and in the same way tell us what you did in order to produce any thing else that is truly good. If there are any things you want to know, and no doubt but there are, just ask us in this column and we will try and help you.

Now, boys, rain in the letters upon us during the month of October, and we will try and get room for them in the November issue. Make them short and to the point, and use plain and simple English in writing them. Never write a sentence without saying something, and we promise you you will find the work more helpful to your minds than base ball is to your muscles.

More particulars are given in reference to the essays for which prizes are offered in another place.

Jottings.

Presentation to Mr. E. W. Chambers.—At the close of the Provincial Exhibition held in London, Mr. E. W. Chambers, of Woodstock, Superintendent in the Cattle Department, was presented with a handsome gold watch and chain by the exhibitors. This is not the first present Mr. Chambers has received in that or a similar capacity, and no doubt the tributes thus given so freely were richly deserved.

Charlotte County Agricultural Fair.—The Charlotte County Agricultural Society, of Prince Edward Island, hold their annual Fair and Ploughing Match at the Alma House, St. Andrews, Oct. 8th and 9th. A number of premiums are offered for the various breeds of cattle, horses, sheep, and swine, while the products of the household are not overlooked. Mr. Jno. S. Magee, St. Andrews, is the Secretary of the Society, and Mr. R. R. Stevenson, the President.

Soiling Endorsed.—"We do not know him, or who he is," says Dr. Hodins, in the *Vermont Watchman*, "but Professor Thomas Shaw is right when he maintains that production of special crops for soiling stock effects a saving in land to the extent of enabling the farmer, with about fifty acres, to raise more beef, mutton, milk, butter, or cheese, than the one with one hundred acres who pays no attention to growth of green fodders. All this is true, but when the country fills up, and all the farm land is occupied, we shall see (or those who are then living will see) the merits and advantages of high farming and of soiling stock."—*Hoard's Dairyman*.

A Good Milk Yield.—A wonderful milk yield is recorded on behalf of the Guernsey cow, Pretty Dairy Maid, which won for her owner, Mr. D. O. Le Patourel, of Guernsey, the champion cup for the best female of her breed at the recent Windsor show. In a test carried out by the Royal Guernsey Association during three days the cow was milked four times daily—at five a.m., eleven a.m., four p.m., and ten p.m.—and gave 61 lbs. 2 oz. on the first day, 62 lbs. on the second, 52 lbs. 9 oz. on the third, when she

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was not in good health. The milk of the last two days was churned, and yielded 5 lbs. of butter, which is at the rate of 17½ lbs. a week. There was no special feeding, and the weather during the test was unfavorable.

The Chatham Mill in Strong Demand.—Mr. Manson Campbell, Chatham, Ont., well known the world over as the manufacturer of the much prized Chatham Fanning Mill, is meeting with every success in the sale of this useful and strongly constructed mill. The work of manufacturing these has grown to immense proportions indeed, by the strong demand that has gradually enlarged as their merits become known. As an index to the popularity of these mills throughout the country, we need only cite the fact, that at Toronto Fair alone, no less than 157 mills were sold. This surely speaks volumes for this machine, for it is not a thing of a day, but has stood the test for a number of years back.

Notice to Apple Growers.—Apple growers and shippers having apples to dispose of should apply to H. Squelch, Covent Garden, London, Eng. Mr. Squelch's trade being a special one for choice goods, and having business connections with the best houses in the United Kingdom, he is in a position to realize the highest price. He attends to all consignments personally, and all goods are sold directly to large stores and shopkeepers, they thus do not pass through dealers' hands. Mr. Squelch invites communication, and will be happy to give references, among whom may be mentioned his bankers, the London and County Bank, Covent Garden. In conclusion Mr. Squelch would impress consignors that he requires the finest produce that can be obtained, and for this he believes he has a ready sale. —(Advt.)

Canadian Hog Breeders' Association.—On the evening of Sept. 10th a number of the leading hog breeders assembled in the office of the Agriculture and Arts Association, corner Queen and Yonge streets, Toronto, to discuss the advisability of forming an association. After due consideration it was unanimously decided to form an association to be known as the "Canadian Hog Breeders' Association." A constitution and by-laws were framed and adopted. The following gentlemen were elected officers:—President, J. O. Featherstone, Springfield; Vice-President, J. O. Ormsby, V. S., Springfield; Treasurer, E. M. Jarvis, Clarkson; Secretary, F. W. Hodson, London; Directors (one of which was chosen to represent each breed):—R. Snell, Berkshires; R. Dorsey, Suffolks; J. Main, Essex; F. Green, Yorkshires; E. D. George, Chester Whites; D. De Courcy, Poland Chinas, and Professor James Robertson. The constitution, etc., will be given in a future issue.

Our New Contributor.—With this number our readers will notice a new contributor to our columns, Mr. Thos. Dykes, of England. To all in the least informed in live stock matters Mr. Dykes needs no introduction, for few are they indeed who have not, at least, had the pleasure of perusing productions from his learned and ready pen. He has been identified more or less for years with all the various branches of the live stock interest in the mother country, and hence we unhesitatingly promise our readers, that during the coming winter months, they may look forward to being well-informed as to the important transactions and events that occur across the ocean, as well as to gain much information in respect to the methods and principles of live stock breeding and management that has placed the studs, herds, and flocks of Britain in the exalted position they are to-day. In securing Mr. Dykes' services as a writer we are but carrying those principles into practice that have guided us in the past, and shall ever be our pilot in the future.

What Foreigners Think of the Brantford Binder.—The *N. B. Agriculturist* says:—"On the large farm of Wooperton, Northumberland, nearly all the crops have been cut with two self-binding harvesters belonging to Mr. William Elder, Herwick-upon-Tweed. Mr. Elder arranged with Mr. Hogg, the outgoing tenant, to cut the whole crop of corn, 330 acres in all, and the way in which these two machines have cut the laid barley and oats on the hillside is a marvel indeed; for being a very stony farm, and the seeds having been sown and never rolled down, it was a very difficult thing to do. A good many practical farmers said the grain was not fit for binders to cut, but Mr. Elder was determined not to be beaten with it after taking the contract, and he is now almost finished with cutting and binding the whole crop. Mr. Hogg is so much pleased with the manner in which the machines have done the work that he has purchased one of the binders for his own estate, Causey Park, near Morpeth. The makers of the one purchased are Messrs. Harris, Son & Co., Brantford, Canada, who make one of the lightest and cleverest binders in the market. The time is

now come when every farmer will have his binder, seeing the work it is doing with such difficult crops this season."

Filling the Silo.—The filling of the silo is no longer a task that must be hurried to completion in one or two days, at any cost, and at the sacrifice of all other interests, but it comes in as a part of the regular routine of farm work, and requires no extraordinary addition to the usual working force of the farm. As the heat developed in the silage may be lost by conduction and radiation, it is found that a temperature of from 122 degrees to 125 degrees is not as readily obtained at the bottom and corners of the silo, and along the walls, especially if they are of masonry or concrete. This difficulty is obviated, to some extent, by care in the management of the fodder as the silo is filled. The fodder put in the first day is not levelled at once, but allowed to remain in a loose pile in the middle of the silo until it is well heated and the fodder for the next layer is ready to put in. The hot silage is then levelled and packed at the corners and immediately covered with the fresh fodder of the next layer. With a similar purpose in view, the last load or two of the fodder of each layer is left in a pile in the middle of the silo to heat until ready to fill the next layer. In this way hot silage is provided in the middle of the silo, to fill the corners where the heat is likely to be deficient. When the silo is full the last layer is treated in the same way, and when the desired temperature is developed the surface is levelled and a cover of tarred paper and cut straw or coarse hay, as described above, is finally added. This cover should be well packed at the sides and corners, and a few loose boards may be laid on, to keep it in place. This simple method of covering was naturally suggested by the well-known fact that a few inches in depth of the surface of the silage was often moldy and spoiled, and the obvious remedy of this remedy was the addition of a stratum of straw or other coarse materials for the mold to grow on, and thus protect the layer of silage beneath from their action. This covering of straw is soon saturated with moisture from the heated mass under it, and is thus made more compact and impervious to atmospheric influences. —*Silo's Ensilage and Silage, by Manly Miles.*

Publishers' Column.

Toronto Is the Hub.—The change of place of publication from Hamilton to Toronto has been warmly approved by our patrons everywhere, both advertisers and subscribers.

Congratulations received.—We have received many congratulations from our subscribers upon the appearance of our JOURNAL under the new business management. Everyone says: "Keep the JOURNAL as good as it has been, and you will be doing well. It looks as if you were going to do even better than this. If so, you will have the finest agricultural paper on the continent."

Our subscription list.—Our subscription list is growing bigger every day. The number of new subscribers we received at the Industrial Exhibition in Toronto was a matter of surprise even to ourselves, and excited comment from all newspaper men present.

What our advertisers say.—Our advertisers say that advertising in THE STOCK JOURNAL pays well, and for this reason. Every JOURNAL goes to an enterprising, wide-awake farmer intent on improving his stock, and therefore anxious to get the best animals for breeding purposes to be had anywhere.

Our new inducements.—Read our "Publishers' Column" for September to see what we said we would do if you would turn in and help us. For two new subscribers, obtained according to the terms in our September number, we will send any weekly secular paper published in Canada from now until the end of 1890, free of cost. For new inducements see the following paragraphs.

Trial subscribers.—We will send THE CANADIAN LIVE STOCK JOURNAL to any new subscriber, on trial, for six months, for Twenty-five Cents, on the understanding that the subscriber, if he continues to take the paper beyond the six months, will do so at the regular rate of \$1.00 per annum.

Here is a chance for you.—Get your neighbors to subscribe for THE LIVE STOCK JOURNAL either for a year, with the remainder of 1889 free, for \$1.00; or for six months, on trial, for 25 cents. Do this and we will reward you handsomely.

How we will do it.—We will allow three new trial subscribers to count as one new full subscriber, and compensate you after the following rates:

1. For two new full subscribers we will send you any weekly secular paper published in Canada, from now till the end of 1890, free.

2. For two new full subscribers we will advance your own subscription to THE LIVE STOCK JOURNAL one year.

Obtain two new subscribers to The Journal and secure a weekly paper for a year free.

Examine this statement.—Examine this statement and see what it means. How can you earn a dollar easier than by this? Go among your neighbors; show them your own copy of THE JOURNAL; get them to try it for six months for 25 cents, on condition that should they take it longer they will do so at the regular rate of \$1.00 a year; send us six such orders, or three such orders and one full order, and we will advance the date on your own copy of the JOURNAL one year, or send you any weekly secular paper published in Canada from now till the end of 1890.

Send to us for blank orders.—Send to us for blank trial order forms, and use them for this work. Send us a post-card, and we will send you a book of six, which when filled up we will accept (as we have said above) in lieu of \$1.00 for your own subscription for one year, or in lieu of the price of any weekly paper published in Canada, from now till the end of 1890.

About silver-plate, etc.—We could send you silver-plate, or watches, or any other imaginable thing, as rewards for your labor in helping us. But there is always such a suspicion of humbug attaching to this sort of thing that we prefer to stick to values easily understood, viz., the price of our own journal and of weekly papers published in Canada.

How to send your money.—Send it by Registered Letter. This is a perfectly safe and satisfactory way. If the amount is large send by Post Office Money Order. Never send money in an unregistered letter. There is no means of tracing it if it be lost, and losses are sure to occur now and again.

Keep your eye on this column.—Keep your eye on this column. In it every month you will find something to interest you, and also to profit you, as we hope. Now, send in your orders as fast as you can.

The picture of the Ontario Agricultural College.—We have received from the late managers of the JOURNAL a number of fine lithograph pictures of the Ontario Agricultural College. It is a beautifully colored plate, 14x27 inches, giving a good view of the College and the surrounding buildings and grounds, and quite suitable for framing. To every present subscriber sending us money, either for arrears or for renewals, we will send a copy of this picture until the stock is exhausted.

How to address your letters.—Address all correspondence to THE J. E. BRYANT PUBLISHING COMPANY (Limited), 58 Bay Street, Toronto. Put all matter intended for the editor, all items of news, stock notes, and matter intended for publication, on separate sheets. Please bear this in mind; it saves a good deal of trouble.

Stock Notes.

Horses.

Don't fail to notice the change in the advertisement of Mr. George Stewart, of Howick, Que., an extensive importer of Clydesdales of the best of breeding and individual quality. Mr. Stewart has replenished his stud with a number of importations this season, making the collection he now has one of the best for selecting prime stallions or fillies from.

The pedigreed Clydesdales reported as sold during the past week numbered twenty heads. Mr. James Chandler, Ayr, Ont., shipped two Macgregor colts purchased from Mr. William Montgomery, Banks, Kirkcubright, and a colt got by Golden Guinea, purchased from Mr. Andrew, Hushes Farm, Paisley. All three are well-bred colts, being out of superior mares. —*The Farming World.*

MR. JOHNSTON'S SECOND IMPORTATION THIS SEASON.—Mr. C. Johnston, Manilla, Ontario, last week made his second trip to Scotland, and purchased the choicely bred yearling colt, Scotland's Pearl, got by Lord Enkine, from Mr. N. S. Park, Hutton, Bishopston, and the finely colored, strong boned colt Newshot, from Mr. A. Lang, Paisley. Mr. Johnston does not import as many Clydesdales as some of his brethren in Canada, but what he does import will, in respect both to quality and breeding, compare favorably with the import of any other in the trade. —*N. B. Agriculturist.*

MR. MILLER'S IMPORTATION.

Mr. Hiram Miller, Millersville, Ontario, shipped three well-bred horses per the Warwick last week. One of these was the Laird of Clarendon, 5128, which he purchased from Mr. MacDonald, Boguanran, Dalnuir. Laird of Clarendon is a well-bred horse, being got by Duke of Hamilton, 2074, out of a Linlithgow prize mare, and he has given promise of being a superior stud-horse, having been sire of Mr. Taylor's fine colt, Kingsley, referred to elsewhere in this paper. Mr. John Gilmour sailed per the same steamer with five colts, one of which was second at Milngavie Show this summer, when owned by Mr. Moir, Loddriegien, Strathblane. Another was a superior yearling bred by Mrs. Blackburn, of Killarn, and got by the noted horse, Lord Enkine. By the Alcides, which sailed on Thursday, Mr. John McQueen sailed with six pedigreed horses, purchased from Mr. R. D. Cameron, Lochgorn, and Mr. William Robertson, Linkwood. Amongst these was the well-known stallion, Better Days, 3421, and a finely-bred two-year-old colt, named Questor, 7178, got by Leopold, 3766, out of the Elgi, pure mare, Queen of Earnside. Two of the colts were bred by Mr. And. Mackenzie, Dalmore, Ainess, Ross-shire. —*N. B. Agriculturist.*

Obtain six new trial subscribers at twenty-five cents, and we will send you your own copy free.

Obtain two new subscribers to The Journal and your own copy will cost you nothing.

CLYDESDALE EXPORTATION.

As concerns Clydesdales, the cry is, "still they go." Thirty head of pedigreed horses have been certified for exportation during the past week, and the bulk of these have gone to Canada. Mr. Jos. B. Neffman purchased the fine horse, Strathairn, 5379, from Mr. Riddell, Blackhall, and an excellent two-year-old colt by Prince of Albion, from Mr. Stevenson, Lochgrove, Bishopbriggs. Mr. Joseph White, St. Marys, Ont., purchased the yearling colt, Cairnbroig Chief, from A. H. Matthews, Newton-Stewart. This colt was got by Cairnbroig Stamp, and has many of the best points of his renowned sire. Mr. White also purchased a yearling colt and two yearling fillies from Mr. William Montgomery, Banks, Kirkcudbright. These were well-bred animals, of superior merit. Mr. A. K. Tegar, Tottenham, Ont., purchased two yearling colts, by Gallant Lad, from Mr. Wilkie, Tullyfergus, Aylth, and a colt of excellent proportions and fine quality, got by Old Times, from Mr. Andrew Smart, Shinafoot, Auchtermarder. Mr. John Ralston sailed per the *Concordia* of the Donaldson line with seven well-bred, useful horses for Ontario. These were purchased mainly in Kilsyth district, and are well-colored, good-selling colts. Mr. George Stewart, Howick, Quebec, purchased the stallion, Lord Cross, 5083, and four colts from Mr. T. R. McLagan, Williamston, Crieff; and Mr. J. Gilkinson, Orangeville, Ont., purchased the fine two-year-old horse Maconachie, 7029, winner of the first prize at Dumfries Union Show last October, when he defeated several of the best colts of his age; and two yearling fillies, from Mr. William Montgomery. The Maconachie has grown into a grand horse. He was bred by Mr. John Houston, Overlaw, and is own brother to the prize mare, Martha, lately owned by Mr. William Park, and winner of champion prizes at West Calder, Dalkeith, etc., this season. In respect of breeding and individual merit he will compare favorably with any colt of his age exported this season.—*N. B. Agriculturist.*

AN EXCELLENT EASTERN STUD.

Mr. W. H. Hutchinson, of Nanpess, who placed an advertisement in our columns, is an extensive importer of Shires, Cleveland Bays and Yorkshire Coach horses. Mr. Hutchinson recently imported a number of animal of these breeds, and we learn from sources of good authority, that they are a splendid collection, doing honor to the stud that harbors them. We have to hand a catalogue of these horses raised by the owner, and from the nature of their breeding, we are assured that the personal merit must be capital. The shire stallion, three years old, Melton, is described as a dark brown, without any white, standing 16 hands and weighing 1,475 pounds. His sire, Kenilworth 4497, was sired by the famous prize and cup winner, Beauchief 116. The dam of Melton was by Hercules 1022, also a noted horse. Melton's pedigree runs back to old Farmer's Glory 818, a foal of 1825, so that he traces back to pure blood through sixty-four years. Another shire, also a three year old, Black Jack 6713, is at these stables. He weighs 1,300 pounds and stands 15.2. He was sired by Hyperion 3153, dam by Staffordshire Hero 2053. Another pair of worthies at these stables are two Cleveland bay stallions Ingomanthorpe Lad (852), and Ingomanthorpe Monarch (853), the former a three year old, standing 15.3 and weighing 1290, and the latter a two year old, 15.3 hands high and 1,100 pounds in weight. The first mentioned was sired by the noted Lucks All 180, and his dam was by Richmond Lad 258. Ingomanthorpe Monarch 853, was sired by Statesman 662, dams sire Michael 205, through whom he traces to the celebrated Barnaby 18. Mr. Hutchinson has also a Yorkshire Coach stallion, Prince of Orange 1252, sired by Prince of Wales 371, dam by Ebor 135. Those at all acquainted with the best strains of Yorkshire blood, will at once recognize the high breeding of this horse, both through his sire and grand sire. A Yorkshire Coach mare, Victoria is also here sired by Prince Victor 126, dam by Country King. This mare's pedigree, it is stated may trace back to Necromancer 309, a foal of 1835. Mr. Hutchinson has shown great enterprise in importing horses of this nature, and the community surrounding him are to be congratulated on having such a valuable stud in their midst.

Cattle.

The Oakdale Stock Farm of Mr. John Leys, M.P.P., of Toronto, has been very fortunate at the exhibition this year, and have added more honors to their already long list. In this issue appears an advertisement from this stock farm which will pay all of our readers to note.

Messrs. Graham Bros., of Aika Craig, Ont., desire to sell their three-year-old stock bull Rossy Prince 6th, and a number of his get all registered. Look up their advertisement.

Prince of Kinnoul Park (53) a three-year-old Aberdeen Angus bull, and a couple of registered Shorthorn calves are held for sale by James Sharp, of Rockside, Ont. See his notice this issue.

Messrs. Nichol Bros. of Plattville, Ont. breeders and importers of Ayrshire cattle, Leicester sheep and Clydesdale horses, insert in our breeders' directory their card. These gentlemen attended the largest shows this fall, including the Provincial and Industrial and were on the whole, very successful.

Mr. John Fennel of Berlin, Ont. again places with us an advertisement which all should make a point of seeing in which he offers for sale a number of Jersey heifers and cows, many of them sired by the famous Canada John Bull. A number of the heifers are already in calf from a pure St. Lambert. Animals of such breeding as these should find a ready sale once the fact is known. Look up his notice.

Mr. F. W. Stone, of Guelph, widely known as a breeder and importer of Shorthorn and Hereford cattle, Cotswold and Southdown sheep and Berkshire pigs, has decided to dispose of his public sale, on Nov. 6th and 7th, a number of pure bred animals of these breeds. Read the extended notice of this herd in the stock notes of our September issue, and remember that a rare chance is offered you for the securing of prime animals. His advertisement appears in this issue.

At the Central Fair, Ottawa, the Shorthorn herd of W. C. Edwards & Co., of Rockland, made a clean sweep of nearly all the prizes, winning the following: First and second in class

of three-year-old bulls; first on two-year-old bull; second on bull calf; first and second in class of four-year-old cows; first on three-year-old cow; first and second in class of two-year-old cows; first and second in year old class; first and second in year old class; first and second on bull of any age; and first on herd of bull and four cows.

Sheep.

Mr. George Thompson, Woodstock, will dispose of by auction on the 17th inst. thirty head of pure bred Southdown sheep made up of five rams, seventeen ewes, and light ewe lambs. Liberal terms are offered. Note his advertisement in this number.

Mr. Henry Arkell, Farnham Farm, Arkell, Ont., who is well-known as a successful breeder of Oxford Downs, having won many prizes with his flock, calls attention in this issue to the fact that he has a prime lot of pure bred ram and ewe lambs for sale.

Our readers will observe that a new name, that of Mr. E. Martin, of Nithside Farm, Canning P.O., has been added to those already in our breeders' directory. Mr. Martin is a breeder of pure bred Shrop and Southdown sheep registered Berkshires and Silver Grey Dorking fowl.

On Thursday Mr. Buttar, Corston, despatched to Canada a consignment of 4 rams and 20 ewes from his celebrated Shropshire stock. These have been sold at very good prices to three gentlemen in Ontario, viz., Messrs. McFarlane, Beattie, and Dunkin.—*N. B. Agriculturist.*

Messrs. J. & W. B. Watt, of Salem, Ont., breeders of Shorthorns, Clydesdales, Oxford Down sheep, and Berkshire pigs, place an advertisement with us this month. Messrs. Watt have one of the best Shorthorn herds in the Dominion, rich in the best of blood, and possessed of rare individual quality.

Messrs. W. M. & J. C. Smith, of Fairfield Plains, Ont., who have been for sometime breeders of Ayrshire cattle, Poland China, pigs, and Merino sheep, place in this number a card in our breeders' directory. Messrs. Smith have been very successful with their stock at the exhibitions having captured a great many of the highest prizes.

Mr. John Dryden, M.P.P., of Brooklin, Ont., writes us:—A private letter just received from Mr. Mansell, Auctioneer, Shrewsbury, England, contains the following items which will no doubt be of interest to your readers:

"We have had a capital sale season. Graham's rams averaged £27 0s. od., one making 170 guineas, and one 200 guineas; Evans, of Uffington, averaged £29 11s. 4d., one making 180 guineas; Farmer's lot averaged £21. 0s. od., one making 145 guineas; Andrew E. Mansell's first fourteen averaged £33 15s. The Royal prize winning shearing letting for the season for £62 0s., and a second yearling for 75 guineas. My father had a grand sale 383 sheep and lambs making £3,940 0s. od., an average all round of £1058. 9d. His 50 rams averaged £30 6s., and 84 ram lambs £7 17s. 11s."

A RARE CHANCE.

Messrs. John Snell & Sons, of Edmonton, universally known throughout the continent as importers and breeders of Cotswold sheep and Berkshire pigs, of the best of breeding and individual merit, place in our columns two advertisements relating to their stock. The visitors at either Toronto or the Provincial, could not fail to see the splendid exhibit they made both with their Cotswold and Berkshires. This firm have for years been the chief prize winners in these departments. The high standard of their flock and herd has been kept up by annual importations from the mother country of the highest prize winners and best bred animals that could be bought there. If you are on the look out for anything in this line, write them for particulars, but in the meantime be sure and observe their advertisements now running.

A CHANCE TO MAKE DORSET HORNED SHEEP.

Though but at present confined to very few breeders, the Dorset Horned Sheep are gradually gaining favor and becoming more numerous. The most remarkable feature of these sheep, overlooking for the present their hardiness, is their great fecundity. It is stated that they will take the ram at any season, with the exception of that of pregnancy, and rarely fall short of giving two lambs at a birth. Mr. V. E. Fuller, late of Hamilton, states that he had ewes that produced two lambs in the spring, two again the fall of the same year, and were ready again to produce two the following spring. He does not, however, favor such a continuous strain being put upon the ewes. The lambs are early maturers, being equal, it is said, to the Downs in that respect. The wool is good, very white, also fine in texture, and the yield of fleece varies from 2½ to 3 pounds in the case of the lambs to 10 to 12 pounds from the yearling rams. To cross on grades of other breeds a good deal has been said for them their mutton being of good quality and the percentage of offal small. Mr. S. B. Fuller, of Woodstock, holds for sale the entire flock, over fifty head, of the Oaklands Jersey Farm, and in an advertisement of this issue gives the particulars. Messrs. York & Tazewell, of Port Credit, also place with us in this number an advertisement in which they offer animals of this breed. Be sure and notice both of these advertisements.

Pigs.

Mr. F. J. Ramsay, Dunnville, Ont., has a number of young pure bred Suffolk and Berkshire pigs for sale cheap, and also a lot of Shropshire ram lambs. See his advertisement.

Messrs. J. & T. MacKenzie, Scotch Block P.O., Ont. are bound to satisfy any purchasers on the look out for pigs of any breed. They handle pure bred Berkshires, Yorkshires, Poland China, Suffolks and Exeters. They are also poultry fanciers, having breeds of all kinds. See their card in our directory.

Champion Stock Food.

The Champion Stock Food Company's exhibit at the Toronto and Hamilton Fairs should be one of special interest to our Stock raisers in Canada. They are manufacturing one of the best articles of that description which has yet been offered. It acts not only as a tonic to the animal, but is also a soother and not an irritant. It cleanses the system and permits the ordinary food to produce the best results. Supplies can be had from BURT COTTAM, London; C. H. PREULES, Hamilton; G. S. HOBART, Kingston; J. T. RUSSELL, Toronto.

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Advertisements.

ONTARIO VETERINARY COLLEGE

TRINITY ST., TORONTO, CAN.

Patrons: Governor-General of Canada and Lieutenant Governor of Ontario. The most successful Veterinary Institution in America. Experienced teachers. Classes begin in October. Fees, \$50 per session. Apply to the Principal.

PROF. SMITH, V.R., EDIN., TORONTO, CANADA.

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RE-OPENS ON THE 1ST OCTOBER.

Lectures on Agriculture, Live Stock, Dairying, Veterinary and other subjects required by farmers. For Circular giving information as to terms of admission, cost, etc., apply to

JAMES MILLS, M.A., President.

Guelph, Aug. 13, 1889.

Sep-1

BERKSHIRES.**NINE IMPORTED BOARS**

Six to 18 months old, a choice lot; also a number of choice young Boars of Spring litters, fit for service, bred straight from imported stock.
We ship to order and guarantee satisfaction, but prefer that buyers make their own selection.

JOHN SNELL'S SONS,

Edmonton, Ont.
R. R. Station, Brampton, G.T.R. & C.P.R. ocm.

FOR SALE.

Polled Angus Stock Bull, Prince of Kianoul Park (53) C.P.H.B. Three years old, sure and quiet.

Also two good Shorthorn Bull Calves in D.H.B.

For full particulars address

JAMES SHARP,

Rockside, Ont. ocm.

FOR SALE.**JERSEY HEIFERS AND COWS**

Registered in the A. J. C. C., due to calve in August and Sept. Some fine heifers, sired by Canada's John Bull 8388, A. J. C. C., and a pair to a pure St. Lambert bull. Also a

ST. LAMBERT BULL

4 years old, and a 6 months old bull calf.

JOHN FENNEL, Berlin, Ont.

JERSEYS FOR SALE.

Seven fine Jersey Heifers; choicest strains. Prices low. Write: G. M. BEEMAN, NAPANEE, ONT. Sep-12

FOR SALE.

20 HEAD of Shorthorns; 6 young Bulls, and 14 Heifers. A lot of South Down and Leicester Rams and Ram Lambs, also a number of Berkshire pigs. These animals are all bred with care. Send for prices and pedigree to

EDWARD JEFFS,

Bond Head.

SIXTEENTH ANNUAL SALE

From the Moretown Lodge Herds and Flocks.

PUBLIC AUCTION at GUELPH, ONT.

A Large Selection of Pure Bred Stock Consisting of

Shorthorn Cattle, Hereford Cattle, Cotswold And Southdown Sheep, Berkshire Pigs.

On WEDNESDAY and THURSDAY, the 6th and 7th days of November, 1889.

CATALOGUES ON APPLICATION.

F. W. STONE,

42 Gordon Street, Guelph, Ontario. spe.

SHORTHORNS FOR SALE.

We now offer for sale our Stock Bull Rosy Prince the 6th, (3 years old); also 7 young bulls and a few heifers sired by him, and registered in the N. H. B. Will sell on easy terms. Come and see us for prices and pedigree to

GRAHAM BROS,

Alisa Craig, Ont. ocd.

Shorthorn Bulls.

1 Bull, aged 5 years; 1 Bull, aged 19 months; 1 Bull, aged 12 months; 1 Bull, aged 12 months. All of Dons N. H. B. registry, except the bull aged 19 months, which is eligible to N. S. H. B.

A. C. BELL,

TROUT BROOK FARM, New Glasgow, N.S.

PONIES FOR SALE.

One dark brown 3 hands, 300 lbs., from T. R. mare and half Arab stallion. One light brown, 23 hands, 600 lbs., from a 4-minute trotting Exmoor pony mare, and a 14½-hand Phil Sheridan stallion, 23 hands, 600 lbs., and nicely broken to saddle.

MRS. MOODIE, Exmoor Grove Stock Farm, Chertseyville, P. O., Dundas Co., Ont.

COTSWOLDS.

Choice Yearling Ram Lambs, Ram Lambs and Yearling Ewes. **BEST QUALITY.**

Bred straight from Imported Stock. Come and see, or Address

JOHN SNELL'S SONS,

Edmonton, Ont. Telegrams, Brampton; ocm.

DORSET HORNED SHEEP**FOR SALE**

BELOW THEIR VALUE.

THE ENTIRE FLOCK OF

DORSET HORNED SHEEP

Late of the Oaklands Jersey Stock Farm—35 in all. All young. Either entire flock, or in lots to suit purchasers. For particulars apply to,

S. B. FULLER, Proprietor,

Woolstock, Ont. ocm.

DORSET HORNED SHEEP.

YORK'S FAIRWELL, Importers and breeders. Ewes, ewe lambs and rams for sale. Write for particulars and pamphlet which will be forwarded post paid. Address

PORT CREDIT, Ont. ocd.

HENRY ARKELL,

Farnham Farm, Arkell, Ont.

Offers for sale an excellent lot of

OXFORD DOWN RAMS AND EWE LAMBS BY IMPORTED SIRE

And from imported ewes, also a number of ewes from imported stock. Registered in American Oxford Down Record. Write for prices or call and see them. ocm.

SOME CHOICE SHROPSHIRE RAM LAMBS,

SUFFOLK AND BERKSHIRE PIGS For sale from imported stock. Address F. J. Ramsey, Dunnville, Ont. Price at 6 weeks old \$5.00 each. myme

Imported and Canadian-bred Shropshire Sheep

For sale, registered pedigrees. Agent for Dana's Sheep and Cattle L. B. DUNKIN, Brucefield, Ont. mar-12

FOR SALE.

A few choice Bull Calves, Shropshire Rams, and Berkshires and Sows. Grand Bow Park Bull Baron Monthly 8th, at head of herd.

July-4. **GEO. BALLACHEY, Jr., Brantford, Ont.**

AUCTION SALE

OF THORO'bred and SOUTHDOWN SHEEP IN WOODSTOCK.

The Undersigned has instructed P. W. W. Auctioneer, to sell, by Public Auction at Carter's Hotel, York on

Saturday, October 12th,

commencing at one o'clock, the following:—Five Rams, 17 breeding Ewes (4 of them Yearlings), 8 Ewe Lambs. The above sheep are pure bred Southdown, all bred from imported stock, and will be sold without reserve. Terms: \$5.00 and under, Cash; over that amount, a month's credit will be given by furnishing approved security. A discount of 5 per cent per annum will be allowed to parties paying cash who are entitled to credit.

GEORGE H. MPSON,

Proprietor. ocm.

GERMAN CARP

Last year's fry, at \$3.00 per 100, or \$20.00 per 1000. **NICOL & SONS, Catarqui, Ont.**

FREE Send spec. to pay packing and postage for a sample colored rug pattern, stamped on the cloth itself. Also our colored plates of 20 different designs, of rugs free. Agents wanted to sell the Jewel Rug Machine, colored rug patterns, and other goods.

W. & F. BUSH,

St. Thomas, Ontario.

FOR SALE.**PURE BRED IMPORTED GLYDESDALE STALLION,**

BEN LEE OF CULLEN (5537), Vol. X., foaled 26th June, 1886; Color, bay; white stripe on face; hind feet white above pasterns. Sire, Leopold (3766), Vol. VII.; Dam, Bet (1638), Vol. V.; Sire of Dam, Young Lofly (991), Vol. I. Also

ONE IMPORTED GLYDESDALE MARE,

ROSE OF SOUBARTON, foaled 25th May, 1885; color, bay; small white spot on face; near hind foot white. Sire, Prince Royal (650), Vol. I.; Dam, Mary, Vol. XII.; Sire of Dam, General Moltke (App.), Vol. I.; Grand Dam, Susie, by Grey Comet (192), Vol. I. Horses can be seen at stable, EAST STREET, GALT. Full particulars by post. Address,

JAS. McCOMBIE, Galt, P.O., Ont.

Sep-3

Make Your Poultry Pay for You and Subscribe for the "BOULDER MONTHLY." The Best Poultry Paper Published. Send One Dollar and get it from now to end of 1890. CHAS. BONNICK Toronto ocm.

AWAY AHEAD AGAIN.**PRIZE-WINNING BIRDS FOR SALE.**

Light and Dark Brahmas, Plymouth Rocks, Langshans, W. F. Black Spanish, Toulouse, Colored Dorkins, Bronze Turkeys, and Pekin Ducks, Toulouse Geese. Upwards of 216 prizes at the recent Poultry Shows.

EGGS FOR HATCHING IN SEASON

From the highest-scoring birds in the Dominion. Send three cents for circulars. Birds and prices right.

Wm. HODGSON, Box 12, Brooklin, Ont.

W. C. G. PETER,

Importer and Breeder of Light Brahmas, Silver-Laced Wyandottes, Barred Plymouth Rocks, Rose-Comb Brown Leghorns, Rose-Comb White Leghorns, Single-Comb White Leghorns, Langshans, B. Red and Silver Duckwing Game Bantams.

Eggs, \$3.00 per Setting; 2 Settings for \$5.00.

Stock for sale at all times. Send for Circular.

ST. GEORGE POULTRY YARDS, ANGUS, ONT.**FARM FOR SALE.**

105 Acres, 1250 bush, good buildings and fences, good state of cultivation, in the township of Watloo two miles from Hespeler and Preston and nine miles from City of Guelph.

Position at once. Apply to

S. C. MARTIN,

Preston P.O., Ont. spe.

FARMS FOR SALE.

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should have one or both of these aids to cheap comfort.

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Save the Clothes, the Health, the Time, the Money. Sold by Hardware Dealers, or direct from Standard Mfg. Co., 34 James St., Hamilton.

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OF

**PURE-BRED SHORTHORNS**

Have at all times a number of both sexes for sale. Catalogue of young bulls, recently issued. Address.

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My-.

THE BRIARS FARM
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Choice of 60 head of

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Including three yearling bulls, by Butterfly Duke 6th, he by 4th Duke of Clarence at Bow Park fame; all from the best strains, and registered in the Dominion Herd Book. Also young Horses and Pigs. Inspection invited.

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My Shorthorn herd now consists chiefly of imp. Lady Violet Lustre and seven of her daughters, and two daughters of imp. Beauty 15th, almost all sired by one bull, and of one character, thick and fine quality. Can furnish a splendid young herd, including an imported bull. Trains twice daily. Station one mile.

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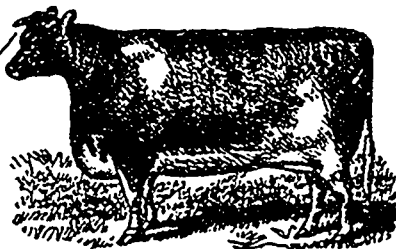
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Baron Constance 10th, heads the herd.
Leicester and Cotswold Sheep, Berkshire Pigs.
Thorough-bred and Heavy Horses of all kinds.

Young Bulls a specialty. Supply always on hand. Come and see.

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GREENWOOD, ONT., CAN.



I HAVE still on hand and for sale an excellent lot of imported Bulls, Heifers and young Cows, besides an exceedingly good lot of home-bred Heifers and Bulls—all by imported sires and mostly from imported dams.

I can supply intending exhibitors with first-class show animals of either sex and of various ages, from calves upwards.

I have also a good lot of imported Clydesdale Stallions and Mares for sale.

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Write or wire me, when and at which station to meet you. Send for Catalogue. No business no harm.

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We breed and have
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Shorthorn Cattle,
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Herd established in 1867 and flock in 1854.

Our stables are one mile west of Lucan Crossing, on Grand Trunk (main line) and London, Huron and Bruce Railways.

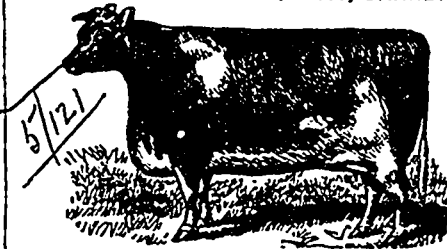
Several females and young Bulls, sired by Duke of Colonus—9282—can be purchased now at very moderate prices. Also a few choice ram lambs, sired by the First Prize ram at London and Toronto Exhibitions 1889.

We are always pleased to show our stock.

JAS. S. SMITH,
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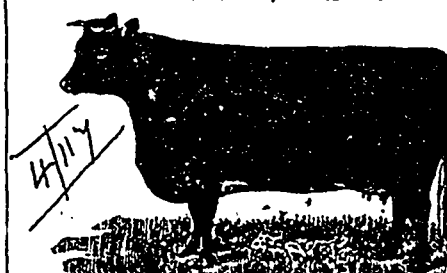


I have still on hand and for sale an excellent lot of imported bulls, heifers, and young cows, besides an exceedingly good lot of home-bred heifers and bulls, all by imported sires and mostly from imported dams. I can supply intending exhibitors with first-class show animals of either sex and of various ages, from calves upward. Of my last imported, ten were from Bruce and Cruickshank breeding, all show animals.

Peterborough is on the C. P. R. and G. T. R. Six trains daily. Write or wire me when to meet you. Will be pleased to show the stock, whether you purchase or not.

A-3. **JOSEPH REDMOND.**

FRANK R. SHORE & BROTHERS,
R. R. Station, London, White Oak P.O.



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SHORTHORNS AND SHROPSHIRE

Have a grand lot of bull calves sired by our imp. Cruickshank Bull, Vermilion (50287), and a very choice lot of heifers, now in calf to Vermilion; also shearling rams and ram lambs from imp. sire and dams. Prices moderate. Terms easy.

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The Bates portion of herd is headed by imported 8th Duke of Leicester—9279—and consists of the following families:

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Breeders of Shorthorns, Clydesdales, Oxford Down Sheep and Berkshire Pigs,

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WE have on hand and for sale a superior lot of show cows, heifers, and young bulls. This season's calves being mostly from the imported Scotch Bull,

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Intending purchasers will be met at Paris station. Apply
JAMES GEDDIE, MANAGER, PARIS, ONT.

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BREEDER AND IMPORTER OF
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CLYDESDALE HORSES,
and Shropshire Down Sheep.

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CRUICKSHANK SHORTHORNS,

Clydesdales and
Shropshire Sheep,



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Show and Store Ewes, choice Rams, and
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Inspection invited.

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Flock first established 1857. Commenced exhibiting 1857. Since then have taken over 100 prizes, including a large number of medals and diplomas.

Imported Rams used only.
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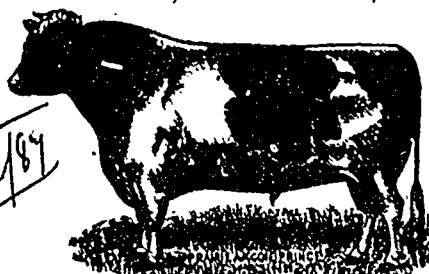
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England, has choice selections of these breeds, of full registered pedigrees, always on sale at moderate prices. He has the privilege, by special appointment, of selecting from Noted Flocks and Herds, the best types of English Live-Stock, and will be glad to assist importers in their selections. The purchase and shipment of any pedigree stock executed on commission, on personal responsibility.

Special facilities for freight and transit. Correspondence invited. Highest English and foreign references. Extensive trade with N. and S. America, the Colonies, S. Africa, etc.

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The choicest and most uniform herd in Canada. Upwards of 40 head to select from. Only choice stock of highest milk and butter production selected from. Individual merit and pedigree a special object. Direct descendants of Aaggie, Artis, Netherland, Johanna, and Billy Boly.

Stock of all Ages and both Sexes for sale from above Families. Prices reasonable considering quality. Send for Catalogue. 23rd Aug., 1889

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Winners in 1887, 1888 and 1889 of more

MONEY PRIZES,

More GOLD and SILVER MEDALS

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BY ANY HERD

At Same Number of Exhibitions.

At Toronto Industrial, this year, F. C. Stevens, of Atica, New York, Owner of the finest Herd of Holsteins in the world and one of the best judges in America acted as Judge, and the

OAKDALE HERD

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Best strains, as Mercedes, Netherland, Clothilde, Artis, Wayne, Aaggie, Mink, Siepkje, Tenven and Ykema, for sale. Particular attention paid to individual excellence and good breeding combined. Prices low for quality of stock and within range of all farmers. Send for catalogue.

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The Grandest of Dairy Breeders.

Combining the richness of the Jersey with size approximate to the Holstein or Shorthorn, but standing alone and unequalled in producing the richest colored butter in mid-winter on dry feed. Gentle as pets, persistent milkers, and hardy in constitution, they combine more qualifications for the dairy or family cow than any other breed.

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Are daughters and grand-daughters of the renowned Island prize-winners. Excelsior 1st, Cato, Fair Lad and the famed Squire of Les Vauxbelets, of St. Andrew, Jeweler, and Lord Fernwood, and nearly all the descendants of the famous Swain sisters, "Katie" and "Cottie," a strain not exceeded, if equalled, by any other. Jeweler 13th, son of Jeweler, out of I. J. Clapp's tested cow, Hazelnut 1788, leads the herd with Lord Fernwood's son, whose dam won special premium at the N. Y. Dairy Show. Squire Kent, grand-son of the noted Lady Emay Foley and Squire of Les Vauxbelets and Kohinoor, also winner of first premium at N. Y. Dairy Show, are coming into service. All particulars in regard to the breed and herd, individually, cheerfully given.

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My-6

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Heifers, Cows, and Young Bulls for Sale

At reasonable prices. Send for new Catalogue.

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Including strains of the best milk and butter families living. Herd headed by CLOTHILDE and's ARTIS, whose dam, Clothilde and, gave at 4 years old, 23,602 lbs. of milk, and made 23 lbs. 4 oz. of unsalted butter in seven days when six years old. G. dam, Clothilde, winner sweepstake prize at New York Dairy Show, has milk record of 26,080 lbs. of milk, and 28 lbs. of unsalted butter in seven days. Sire, Artis, winner first prize at New York Dairy Show.

Young stock, all ages, for sale, including Carlotta's Netherland Prince, dam Carlotta, with butter record of 22 lbs. 1 oz. unsalted butter; sire, Netherland Prince. Prices low for quality of stock.

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ABERDEEN-ANGUS POLLS

We have reserved from the sale of our champion herd of Polls, some 17 excellent females, with that splendidly-bred Ruth bull, Runnymede and, at their head, and have started afresh to breed the comely doddie with individual merit (as before) the guiding star of our efforts. We are at present sold out, with the exception of two or three yearling bulls.

We have also a flock of over a hundred head of fine Shropshire sheep, the ram lambs and shearlings of which we have now for sale at reasonable prices. Send postal card for list and terms.

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JAS. DRUMMOND,

Imported and breeder of

PURE-BRED

AYRSHIRE

CATTLE

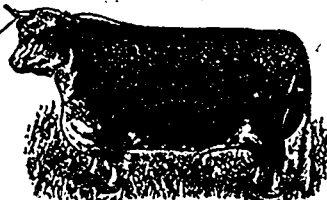
Of Large Size, and from Choice
Milking Strains.

The herd numbers sixty-five head, and for three years in succession has won Provincial or Dominion Prize as best milkers. The imported bull, ROB ROY (3971), at head of herd.

Young Stock on hand at all times for sale
Feb. 17.

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HEREFORDS



THIS herd is remarkable for the number and uniformity of the good calves that it produces. It has taken a 1 the Medals given in the Province of Quebec, at leading exhibitions the last three years. Breeders who are anxious to get bulls or females with plenty of hair and of good quality and good milk producers, should see this herd before purchasing elsewhere.

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Waterville is on the main line of C. T. R., 110 miles east of Montreal.

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All registered. Catalogues sent on application.

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from Toronto.

To improve your stock keep yourself posted on all the best modern methods of breeding. In other words, read THE LIVE STOCK AND FARM JOURNAL.

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IMPORTER OF
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Three-year-old Stallions of all breeds,
at sale at lowest prices.
Stables five minutes walk from G. 1.
Station

A.1 Stallions Registered in the English Stud Book.
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13 are Stallions and Colts. Several of our mares are supposed
to be in foal to our well-known Boydston Boy. (111), sire of the
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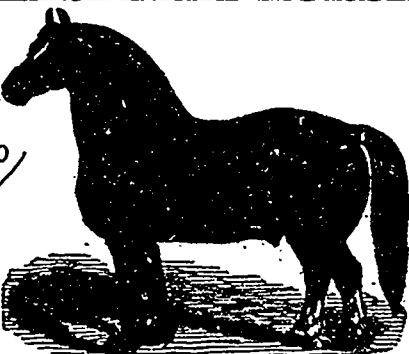
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FROM one to four years
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The stock is selected
by myself with great care.
Parties wishing to pur-
chase would do well to
inspect personally before
deciding.

Also a few SHETLAND PONIES
Correspondence Solicited. Howick Station, C. P. R., on
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Importers, offer for sale choice Stallions, Mares and Fillies,
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Scotch Shorthorns,
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Improved Large White Yorkshire Pigs.

A few young heifers and bulls for sale at reasonable prices. Our first importation of Improved Large White Yorkshire
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years. Orders now booked for young pigs. P. O. and Telegraph Office at Innerkip. Farm is one mile from Innerkip station
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Shire Horses

We have a large head of Imported Stallions and Mares on
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We have the Pioneer Herd of Pedigreed Yorkshire Pigs in
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RESIDENCE ONE MILE FROM CLAREMONT STATION.

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HACKNEYS.

Stallions and Mares
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The importations of
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John Miller,
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Residence 3 miles from Claremont station, C. P. R., or 7
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by telegraphing us at Brougham. Correspondence solicited.

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On reasonable terms CHOICE Pedigreed
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Amongst them are "Lord Rollo,"
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Prize winners in Scotland, freshly
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HACKNEY * STALLIONS
FOR SALE.

Highest Prize-winners in the Leading Shows
of the World,

And the gets of famous sires, such as Lord Erskine, Damley,
Old Times, McCammon, Garnet Cross, Prince Edward, Prince
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Prices reasonable. Catalogues furnished on application.
ROBERT BEITH & CO., Bowmanville, Ont.
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Also Berkshire and Suffolk Swine. Orders booked for spring
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Stock for sale, Regis-
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The Champion Sweepstakes herd of
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THOROUGHbred HORSES,
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R. BLAIR, Almonte, Ont., Lar & Co., breeder of pure-bred Clydesdale horses, Shorthorn cattle, Shropshire sheep and Berkshire swine. Young stock for sale. Prices right.

THOS. BLANCHARD, Appleby, Ont., breeder of Shire horses, Shorthorn cattle and Leicester sheep. 78

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THOS. GOON, Richmond P. O., Ont., importer and breeder of registered pure-bred horses, Shorthorn cattle, Cotswold and Southdown sheep. Stock for sale. 76

JOHN L. HOWARD, Sutton West, Ont., breeder of registered Clydesdales and pure Shorthorn cattle. 78

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MESSES. SNIDER & EDMONSON, Brantford, Ont., importers of Clydesdale, Standardbred, Cleveland Bay and Coach horses. English Coach and Cleveland Bay, Clyde and Suffolk Punch Stallions on hand for sale. 74

H. H. SPENCER, Brooklin, Ont., importer and breeder of Clydesdale, Standardbred, Shorthorn cattle and Shropshire Down sheep. 77

THOMAS TAYLOR, Harwich, Ont., breeder and importer of recorded Clydesdale and Cleveland Bay horses. Stock for sale.

W. W. VERNON, Waterville, Que., breeder of Pure-bred Clydesdale Horses and Hereford Cattle.

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THOS. B. ANTONINE & SON, "Neidpath Farm," Stratford, Ont., importers and breeders of Scotch Shorthorn cattle and Shropshire sheep. Herd headed by the imported Cruikshank bull Prince Royal. 75

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A. BROOKIE, Essex, Ont., breeder of Scotch Shorthorns and Cotswold sheep. Stock for sale. 72

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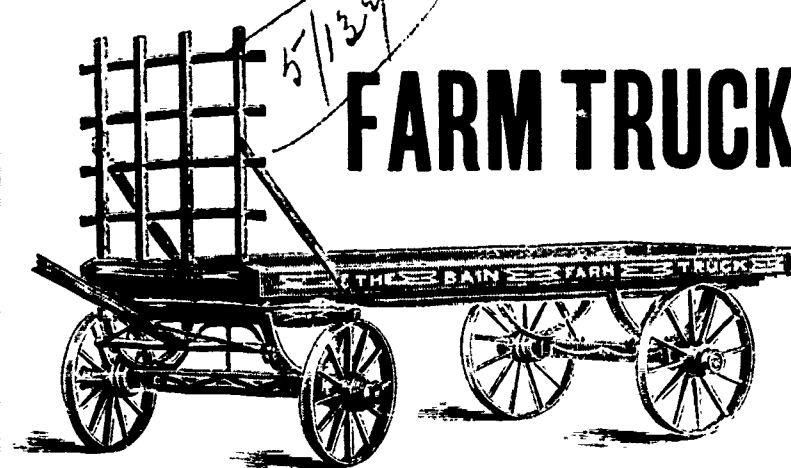
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