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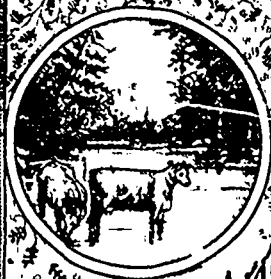
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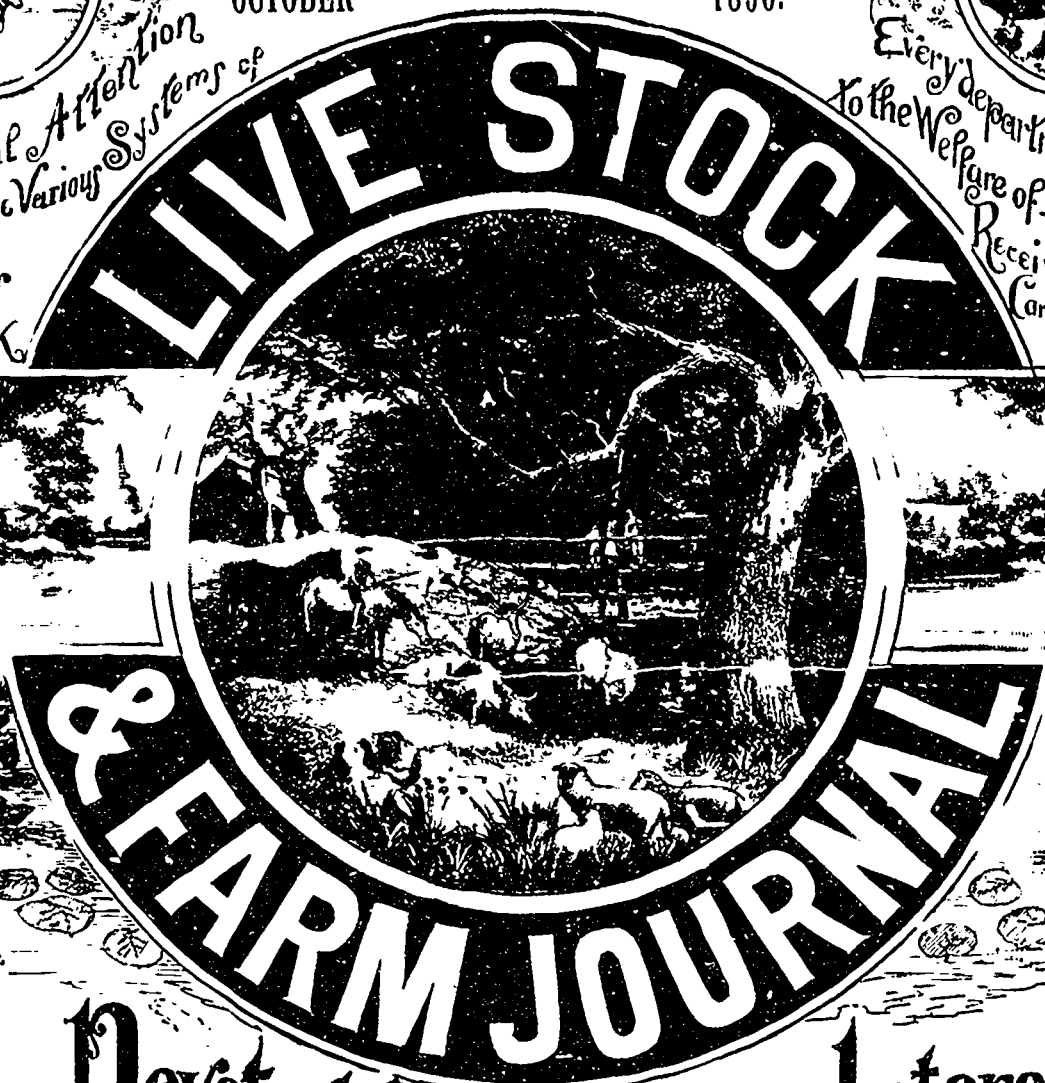
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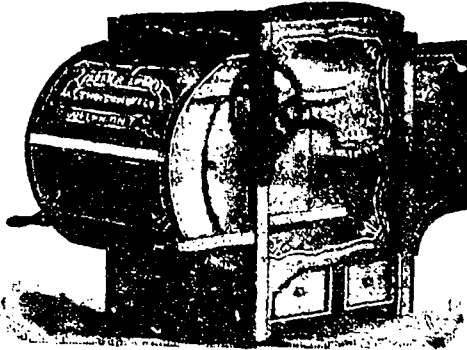
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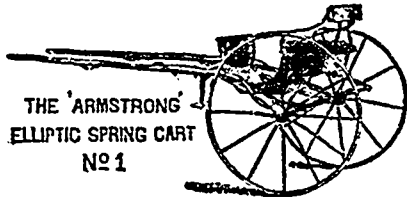
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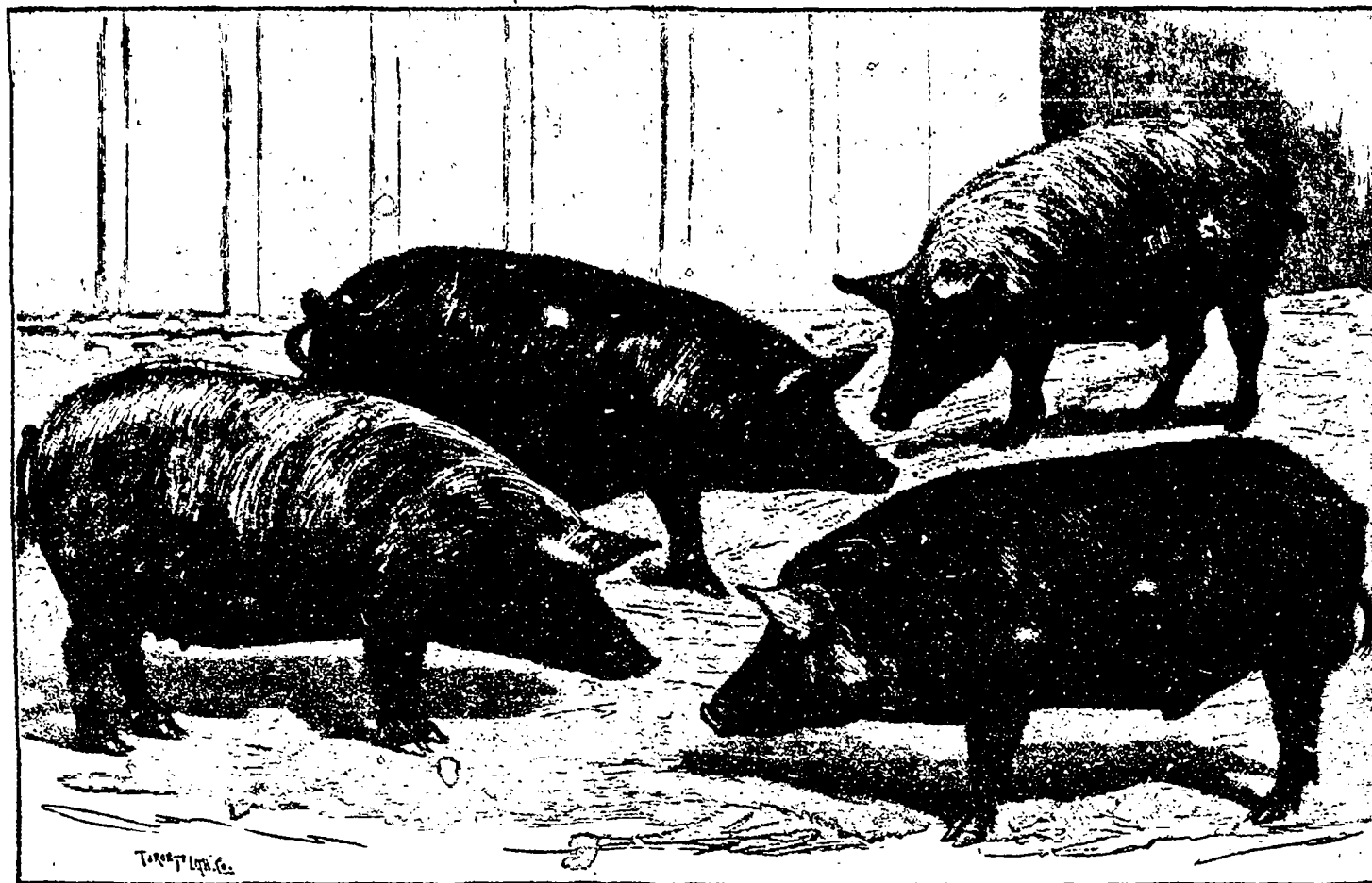
THE CANADIAN LIVE STOCK AND FARM JOURNAL

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

VOL. VII. No. 10.]

TORONTO, OCTOBER, 1890.

[WHOLE No. 84



Group of Tamworth Pigs,

The property of Mr. John Bell, L'Amaroux, Ontario.

Our Illustration.

The frontispiece this month represents in a realistic manner, a group of Tamworth pigs, the property of Mr. John Bell, of L'Amaroux, Ont. The boar, Norman's Pride, farrowed Jan 7th '83, was imported last August and was sired by, Newcastle Hero 889, Jan. Newcastle Heroine 1528. This boar shows the characteristic merits of the Tamworths, being deep sided and long bodied without any of the frame coarseness or looseness that is usually associated with these qualities in other pigs. The head and jaw is light, the bone strong, while in every part there is a solidity of make that is surprising and gives wonderful results on the scales. He is covered with a luxuriant growth of nut brown hair. Being active and vigorous his use has proven him to be a superior sire, of which we had evidence in the excellent litter of eight a few weeks old at the time of our visit. The largest sow in the group, Sally Ann, was imported at the same time as Norman Prince, and these two formed an excellent

foundation for the present herd. This sow is of remarkable length and wonderful depth. She has turned out to be an exceedingly valuable brood sow, being prolific and vigorous. She is well covered with hair, fine in the head, and strong, though not by any means coarse, in frame. The other sow, L'Amaroux Beauty, was imported in Sally Ann. She is eleven months old, and was attending to her first litter of eight lusty and shapely youngsters. She is a typical Tamworth in every way, and will, undoubtedly develop into as worthy a brood sow as her dam. In a pen we were shown a pair of pure bred Tamworths that had been castrated to indicate what the Tamworths could do in the way of pork making. They were only about four and a half months old and, as far as we could tell by the eye, they would tip the beam, both of them, between 150 or 175 lbs. They were long to the body with great depth, and their compactness and evenness were extraordinary. One of this pair appears in the illustration.

Mr. Bell keeps his herd in strong, growing, and

healthy condition. All the pigs, with the exception of the sow with the litter and the two that were being fattened, were out on a rough pasture. A very interesting and striking object lesson was shown us.

There are two Berkshires, says Mr. Bell, "that are eligible for registration, and there are two pure bred Tamworths; the Berkshires have the advantage of a couple of weeks in age. They have been fed the same food and allowed to run together since the day they were weaned, and besides, the Berkshires have always been, and are yet, the bosses." The difference was surprising. The Berks were plump in the ham, broad backed, in fact typical Berkshires, while the Tamworths were very lengthy and wide in the sides and would weigh considerably more than the Berks. "That shows clearly that the Tamworths are easy keepers," said our companion. If they beat the Berks in that direction, they are certainly the coming pig. Time will demonstrate if this be so.

The Clydesdales of his farm are reviewed on an inner page.

THE Canadian Live Stock and Farm Journal

PUBLISHED MONTHLY BY

The J. E. Bryant Company (Limited),

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All communications should be addressed THE J. E. BRYANT COMPANY (LIMITED), 58 Bay Street, Toronto, Canada.

TORONTO, OCTOBER, 1890.

Original Plans, Devices, and Ideas.

If you have an original plan, device, or idea, that you think would be of benefit to your fellow farmers or stockmen, turn to our March number and see how we will pay you for it if you send it to us for publication. Space forbids us printing the whole scheme in full, as usual. We would refer those desiring to know more of this to our January, February, and March numbers, where the premiums are given in full with complete particulars.

Pure-breds in Canada.

In the *Farmer and Stock Breeder* of August 18th appears the fore-part of an article from Prof. Shaw, of the O. A. C., Guelph, on the "Live Stock Interest of Canada," in which, Prof. Shaw truly states that there are good reasons for believing that a larger number of first class animals of many of the different pure breeds, is to be found in Ontario than any single province or state on the continent of America. This comparative excellence of our stock he attributes to at least three influences: the extent of our importations from Great Britain of pedigreed stock, the suitability of our soil and climate for its production, and the brisk market found in the United States. The *Farmer* is a live periodical, and the active spirit of its new editor (Alex. Macdonald) has made a vast improvement in its appearance and matter. Those interested in colonial matters, as well as many of our stockmen, will find Prof. Shaw's articles very interesting reading.

Estimation of Pedigree.

In listening to a breeder extolling the merits of the pedigree of an inferior animal, we are always reminded of an exceedingly illustrative and somewhat humorous incident. A thoroughly characteristic Hibernian, and an unrepresentative Scotchman were two of a party of tourists that were paying a visit to the island of Iona. Before leaving the island the Scotchman, who was a very dwarfish personage, was harassing the rest of the party by continually chattering about the fine physique of his ancestors interred on the island, and his descent from a long line of ancient worthies. When they came to the plot on the island in which these relatives were interred, the guide referred to them as a race of giants. The Irishman being somewhat nettled, looked down on his puny manikin friend and says, "By the powers, my little man, ye may well say ye had a descent, and sure, what a

terrible one it was too!" Pedigree is not to be belittled, but it is far more legible and doubly valuable if written on the backs of the animals than if only inscribed in books.

Give Them Three Cheers, Gentlemen!

With the advent of each recurring exhibition season, a new lustre is given to the already unrivalled prestige of Canadian stock. When our stockmen venture to enter the land of the screaming eagle they never fail to dazzle and entrance that high-soaring bird with their superb display of paragon stock. At the late Detroit International, Messrs. John Jackson & Sons, of Abingdon, were awarded thirteen firsts and eight seconds, and also won two medals, and a silver cup given by the American Southdown Association. This flock swept all before them. In Leesters, J. Kelly, Jr., of Shakespeare, Ont., was almost equally successful, as he won ten firsts and six seconds. In Cotswolds, J. G. Snell & Bros., of Edmonton, Ont., and H. Crawford & Son, Canboro, Ont., carried all before them, nine firsts and five seconds going to the former, and one first and two second prizes to the latter. The flock of H. Tolton, Walkerton, Ont., grandly represented the Oxfords, and secured five firsts and three seconds. We feel proud of such work as this, and our American neighbors should feel gratified that only such a high quality of stock may successfully compete with theirs.

Galloways.

For rugged happiness, the lusty Galloway is the king of beasts. Whether roaming the highland hills, or ranging the lowland prairie, he successfully buffers with his vigorous spirit the hardest of stern conditions. Usuriantly coated with long and wavy hair, with underclothing of the warmest and softest down, he laughs in hearty bellows at the cold or the sleety storm. Under such a happy circumstance of qualities, it would not be rational reasoning to expect other than the luscious and beautifully marbled beef that is acknowledged to be particularly the Galloway's. The beef eaters of the world know this to be so, and the British markets show that they make good use of their knowledge. The records of the fat stock shows tell a flattering tale, for not a few of the prize carcasses at Chicago and elsewhere had blackskins for winding sheets. The Galloways are not jealous and vain of their merits, but with becoming generosity transmit them to others of lower lineage so fully that it is stated 98 per cent. of their half-blood progeny are black and hornless. As an extensive breeder concisely says of his protégé, "He matures rapidly, is hardy, and is happy."

Responsibility of Breeders.

It has been said of Thomas Bates that, in referring to a certain favorite calf, he made the remark, "The destiny of Shorthorns depends upon the life of that calf." This in itself makes clear the high valuation he put upon individuality, and it also shows that he was feeling his responsibility as a breeder. We cannot venture to measure the extent of the effect of this recognition upon his after success; but it must surely have stimulated him in his work, and more or less favorably influenced the character of the animals bred by him. If breeders nowadays held like sentiments to those expressed above in respect to the breeds they represent; if they felt that every animal they sent out was determining the destiny of that breed in the locality to which it goes, not only would they be materially benefited, but the live stock industry would expand far more rapidly. A breeder without feelings of responsibility, or who is under no obligations to his customer other than those of the common luckster, does incalculable damage to the interests of the breed he represents; and, inversely, the breeder

who is fully aware of the honorable nature of his work, and responds to the trust reposed in him by parties at home and afar, as well as more than meets the obligations that exist between buyer and seller, adds a prestige to his work, a profit to his earnings, and a benefit to a farming community. If every breeder clearly recognized the sentiment of Bates, there would be fewer indifferent, and many less inferior, animals sent out to not only irreparably damage the reputation of the breeder, and that also of the breeds they represent, but the live stock interests as a whole.

The Outlook for Sheep and Pigs.

In all countries sheep and swine husbandry are attracting more attention than ever they have before. British stock breeders have experienced a wonderful demand from our continent especially. At the recent exhibitions in Ontario the sales of sheep and swine were more than usually brisk. This is a matter of much moment to the whole country, and surely indicates that our farmers are rising to their opportunities in this direction. In no kind of live stock is there more money at the present time than in the rearing of sheep and swine, and since the amount of capital required to embark is not large, and the returns quick, our farmers will not be slow to profit by the means open to them to increase the returns from their labor. The Canadian sheep industry may be doubled in magnitude without encroaching in the least upon any other industry, and the same is as true of swine raising. As our pork packers and dealers find the supply inadequate to meet the demands of their trade and will find it so for some time to come, there is as yet not the faintest inkling of the market becoming clogged.

The Light Horse that Pays.

We are of the belief that the scarcity of light horses of the best marketable type, is due to the fact that many horse breeders allow their own likes and dislikes in respect to driving horses to distort their conception of the type that finds the readiest sale. Standing in the horse ring at the Industrial, we were much interested in the exceedingly stylish appearance of a bay colt with wonderful front action. A veterinary friend, an extensive dealer, dropped the comment, "That horse without such light stepping front action would sell for one hundred and twenty-five dollars, but with it he is worth on the market to-day five hundred dollars." You could not induce one out of ten breeders to rear such a stamp of a horse, because they do not themselves see anything to admire in such development in front action, overlooking the fact that others admire it and they are the ones that are willing and able to pay for the satisfaction of their desires. Such breeders are selfish towards themselves to the injury of their income. There is a good demand in all our cities for stout, symmetrical, and high-stepping colts, such as a typical Hackney stallion would throw from those of our mares that are of good quality. The Hackneys are becoming more numerous in Canada, which of itself portends that some few breeders at least, are aware of the profitable market open to them. If we understand rightly the relations of producer to purchaser, it should be by far the most profitable policy of the farmer to produce what the latter will pay most to secure.

The Age of Prize-Winners.

The action of the judges at the Dundee Highland Show, in awarding first in the champion Clydesdale stallion class to Prince Alexander, a yearling, over the noted Prince of Albion, has been considerably discussed on both sides of the Atlantic. The general opinion appears to be that the Highland Show established an unfortunate precedent. For our part we see

no reason why a colt should be prevented simply on the score of age from securing a place which his merits would otherwise give him. As he is just as likely to turn out a good breeder as a bad one, the judges adopt the safest course in not looking into the future at all. A somewhat similar incident occurred in the cattle class at the late Toronto Industrial, in which an exceedingly meritorious Holstein yearling heifer was placed first in a sweepstake over a number of developed cows that were very strong in good qualities. Merit must be recognized in the show-ring, independent of age, if justice is to be done, but at the same time it might with justification be made the balancing point between two animals otherwise equally good. Other qualities being equal the developed animal should receive the award over the youngster, but if the qualities of the latter surpass those of the elder, by all means acknowledge the merit by a favorable decision.

Hogs as Money Makers.

"Even allowing two dollars as purchase money for each pig, I can make pork with whey and shorts for three cents per pound," said an extensive dairyman to us just recently. He raises Berkshires and Yorkshires, and of course only expects such returns through summer feeding. The above assertion others will find endorsed in their experience. Whey from cheese factories, or skim milk, fed with shorts, is cheap feed, and given to the right sort of pigs will yield good pork and a large profit. Fed to "elm peelers" it runs to hair, snout, and legs, the least valuable of all parts of a marketable hog. Any farmers near a cheese factory with whey in abundance, are making the mistake of their lives if they do not purchase a pure bred boar and raise grade pigs to turn that whey into money. We have no breed in particular to advocate, as all have certain distinct qualities of their own, but we would urge those with facilities at hand to place their order with a reliable breeder for a vigorous young boar. The raising of pigs is within the reach of all, as the outlay is small and the returns quick and large. Fifteen or twenty dollars sunk in purchasing a pedigreed boar will pay those handsomely who have common facilities for pig raising.

The Suffolk Punch.

The fact that the Suffolk Punch is not meeting with that degree of favor in this country which their qualities should insure them, has always been a matter of surprise to us, and this has doubly increased through conversation with Mr. Frederic Smith, of Rendlesham, Suffolk, England, the secretary of the Suffolk Association, who informed us that they were making rapid progress in the United States, as we surmised from the large shipment of eighty head that Mr. Smith had in charge for a number of stockmen there. It will be remembered that the famous prize-winner, Wedgewood 1749, which appeared in our April number, was bred at Rendlesham, the home of more Suffolk winners than any other stud in Great Britain.

The most common cause, it is by no means a reason, of this indifference towards the merits of the Suffolks is in a small measure due to the fact that other breeds of horses were here before them, but that surely is not complimentary to stockmen, who may be truly classed amongst the most progressive in the world. We are of the belief that the reason lies in the truth that few recognize the merits that the Suffolk

Punch possesses. The most striking and peculiar merits of the Suffolk are to be seen in their marvellous purity of breeding, that has given them a wonderful uniformity of color and conformation; their iron constitution, which has added greatly to their value for breeding purposes, and insures docility and longevity; the hard, firm bone of their legs, and freedom from feathering which increases their utility in many districts; and further, their quick, smooth trot and rapid-gaited walk that has made them so valuable for *dray purposes and general use on the farm.*

Several importations have been made to Canada, and as far as we can learn they have given excellent satisfaction, as it has been found that they cross well on our native mares. We are quite certain that as the qualities of the Suffolks become more universally known there will be a much greater demand for them than at present. It appears to us that for the conditions of our North-Western Territories, no other breed would give better satisfaction to breeders.

Water Supply for Stock.

Without an unlimited supply of pure water no stockman can hope to make a complete success of raising stock. During winter it is quite within the range of possibility to carry cattle through winter on a very limited supply through the agency of succulent foods, and in fact many feeders prefer to have their charges get almost all the water they require through extensive feeding of turnips. At Kinnoul Stock Farm stables, under the guidance of Mr. J. G. Davidson, we inspected thoroughly their system, which we shall endeavor to describe for our readers for their comment, full or partial adoption. A short way from their extensive stables is a small creek fed by a number of small springs originating in a shallow ravine. A small sand and gravel bridge thrown across the ravine holds back an abundant supply of water for winter and summer. A windmill on the top of the stable pumps from the pond made by the bridge a supply into a large tank in the stables, which is placed at such a height as to send the water by gravitation to all parts of the stables and also to the adjoining fields. In the stables the pipes are laid four feet in the sand and the uprights rise opposite each pair of mangers, and each is supplied with separate stop cocks. In each manger there is a small box so arranged that when the water is turned off from the watering boxes the water standing in the upright pipes drains out into the sand, thereby preventing the freezing up of the tap pipes in winter. The tank is made of metal. Trouble was experienced at first with the pipes freezing that convey the water from the tank, but Mr. Davidson has surmounted that difficulty completely by placing loads of fresh stable dung immediately under the tanks and around the pipes, as the heat and fumes from this keeps the frost out in coldest weather. In the field troughs they do not use sinkers or cut-offs as their supply of water is practically inexhaustible. A small stream about the thickness of a pipe-stem runs continuously so that the water keeps sweet and clear in hot weather when it is most needed, and the overflow does not amount to much, as the stock are coming and going all the time, and there is an approach to running water in this manner which is relished especially by sheep.

There has been considerable doubt in the minds of many as to the real utility of windmills. For such work as this it has proven to be a success. There are other methods, through the use of cisterns and hydraulic rams, of which we shall have something to say later on.

Let there be Light in the Stables.

The major objection to basement stables arises from the fact that it is a difficult matter to secure economically an unlimited supply of light. It is a matter worthy of discussion as to how far it is desirable to have lighted stables for certain purposes. If brightly lighted it means a lessening of the warmth, and the question may be looked at from another point of view which recognises that a certain amount of darkness has a very favorable influence on fattening animals. It acts no doubt through tending to keep them more quiet and contented. Poultry fatteners have perhaps carried this idea more into practice than any others, and it certainly is worthy of consideration by those seeking like results with different animals. It may be said that darkness induces a morbid growth, but that may be met by the assertion that, fattening in itself is an unhealthy tendency in animals, and is unknown in nature. It is common for those discussing this subject to cite, as an instance of the beneficial influence of sunlight in stimulating growth, the fact that the playing of the sun's beams upon fruit affects favorably their size, flavor, and general appearance; but it is to be remembered that plants are directly dependent on the sun for their vital force. Mellowed light conduces to the comfort and aids in isolating cattle from disturbing influences, and in that way it has an effect upon the economy of fattening.

However much it may be desirable to seclude and darken the quarters of fattening stock, it is really the height of folly to subject breeding or working animals to similar conditions. It must be at once admitted that the common tendency is in that direction, and the great majority of horse-stables show this defect in their arrangement most markedly. Taking a horse from a dark stable into a bright glare of sunlight reflected from snow, will go far to account for the shying and bolting of many, if it does not even result in a pronounced and permanent defect of the eyesight. Horse-stables should be well lighted by all means, and it may be done without giving rise to draughts if care is taken in choosing the position of the windows. Horses or cattle used for breeding purposes must have the very best circumstances for maintaining their health and vigor, and light certainly has more or less of an effect on these.

Breeding for Early Maturity.

If we enquire closely into the various improvements that have been made in the many breeds of cattle, horses, sheep, and swine, we will find that early maturity has been one of few desirable features that all the first breeders had in mind. Bakewell, with his Longhorns and Leicester sheep, gave this special prominence, and the same may be said of the Collings and Booths, and to their successful efforts the Shorthorn of to-day owes the prestige that they possess on account of their remarkable development in this direction. Why it is within the present century that an English authority expressed wonder that Hereford oxen were slaughtered at the early age of six years, while now half that time and less sees them on the butcher hooks. The "blackskins" have progressed wonderfully in this direction, as have also the Devon and Sussex. It is not so very long ago since sheep were only put upon the market when two years old, while now they attain the same weight in less than half that time, and the same observation applies to swine. The fact that early maturity is one of the most influential factors in lessening the cost of production has given rise to this strong effort to secure it

on the part of all breeders. There is no doubt but that in the case of all live stock the youngest meat is the cheapest to produce. It has been stated on good grounds by an American authority, that the carcass increase of steers between two and three years old is attained at a cost of 50 per cent. more than that in the carcasses of animals under two years old.

It is self-evident that to promote early maturity through breeding, it must be a quality possessed by both the sire and the dam, and they to possess it must be of a breed noted for it, and from a strain that were developed in that direction. Every stockman acquainted with the rudiments of his work readily recognises the good and rapid feeder by its mellow wealth of hair and flesh, and these again are but the external signs of healthy internal organs of digestion and secretion. From the dam and sire there must come a vigorous constitution, untainted in the least by hereditary weakness or impairing influences.

It is well to consider how far early maturity may be developed through early breeding. That it has an influence, all who have given the matter consideration will admit, but the measuring of that influence is where the difference lies. Thus the Scotch breeders recognise in breeding their heifers so as to have their first calves at foot even as early as two years old. Of course there is a possibility of over-burdening the heifer before she has matured so as to stand the strain without injurious effects. It is safe to say that with generous feeding, kind attention, and healthy comfort a heifer will approach maturity so rapidly that she may with prosperity and profit be bred at that early age. The cost of production must be lessened, and the most effective and best way of accomplishing that is through early maturity, brought about by early breeding, generous feeding, and strictest attention to all the little details that have an influence for better or for worse upon it.

Production of Mutton.

A short time ago during our absence from office, Ald. Frankland called and left a very expressive, though concise note, which we give below. We may say that Ald. Frankland has been laboring for years with voice and pen to awaken our farmers to the splendid opportunities that are open to them in the direction of sheep husbandry. The export trade in beef cattle, which is rapidly expanding to enormous proportions and has proved and is proving very profitable to Canadian farmers, owes its existence to the effective advocacy and guiding hand of Ald. Frankland, and we sincerely hope that his efforts may be at least be half as effective in leading our farmers to utilize the unequalled conditions that are theirs for sheep raising. The note reads:

Editor of the CANADIAN LIVE STOCK AND FARM JOURNAL.
SIR,—Your September number is full of interest to the farmer and live stock dealer. And one would imagine from the numerous allusions you kindly make in regard to sheep of all kinds imported that Canada must be an El Dorado for commerce in the line of exporting Canadian sheep for mutton; whereas out of 7,000 head one company shipped, there were not 75 wethers amongst them. Old ewes and rams were the staple. Shall I be able some day to go direct to any sensible farmer and buy 100 mutton sheep? "Farmers, hurry up."

FRANKLAND.

This clearly indicates that the status of general sheep breeding throughout Ontario, and we may say all Canada, is very low indeed when in such a call is made for mutton sheep as that Ald. Frankland cites, nothing can be obtained but old ewes and rams. While it may not be at present possible for every farmer to become an extensive shepherd, yet it is within the scope of every one to breed at least a few good

ones each year. To make a launch in sheep breeding requires little outlay and the returns are quick and good. In fact, the poorer the farm or farmer, the more urgent is the need of development in this direction. We are blessed with grand conditions for the production of mutton, and our farmers have only to use their intelligence and skill in breeding to make our mutton renowned throughout the world. In fact notwithstanding the indifferent attention that has been given this department of the live stock husbandry, "Canada mutton" is known as such and quoted at highest prices in the markets of our nearest neighbors. This subject is so important to our mind that we give it fuller attention in another article. We trust that Ald. Frankland's words, few though they are may, be pondered over and weighed well by those to whom they are so effectively directed.

Profits in Sheep-Raising.

The profits arising from any agricultural industry depend upon a variety of circumstances. These include the nature of the markets, the adaptability of soils and conditions, and the qualifications of the individual engaged in it. We shall treat of these in the order named.

That the markets of Canada are all that can be desired for sheep-raising is not true, but that they are encouraging is also true. The best market, that of the United States, is barricaded by a high tariff wall which greatly hinders trade in sheep and wool, more especially the former. Our principal trade in the pure bred classes is with the Americans, and largely for the reason that hitherto this class of sheep entered that country free. In lambs of a superior class our trade with that people would be unlimited were it unfettered. As it is this trade is large. We have a good market in Britain for another class of sheep, that is shearlings, if properly fattened, but as yet we have taken but little trouble to prepare sheep suitable for this market.

The market for pure-bred sheep to the United States will still be largely untrammelled, as \$1.50 per head of duty is not an insuperable barrier on pure-breds. That in mutton sheep and lambs will be seriously interfered with, as, by the provisions of the McKinley Bill, the duty on this class of sheep is likely to be doubled. The market for fat shearlings in Great Britain is virtually without limit.

Our country is well adapted to the rearing of sheep. The long winters are against us, but they do not by any means form an insuperable barrier. The great variety of soils which we possess, including both hill and valley land, enable us to keep a large variety, each one of which may easily find congenial pasture grounds.

But no advantages of market, climate, or soil, will avail where the individual does not try to obtain the mastery in the knowledge of his business. So great is the difference in natural and acquired qualifications that one person will succeed perfectly where his neighbor beside him will fail.

In sheep-raising, as in all other kinds of live-stock keeping, the great question is not so much one of profit to the individual keeping pure-breds, as one of profit to the farmers engaged in raising grades simply for wool and mutton purposes. The number of the former always will be limited.

In rearing sheep for wool and mutton purposes a due regard must be had to the breeding, and also to the breed. Some breeds are good mainly for mutton, as the Southdown. Some are good mainly for wool, as the Merino. Some are good for both, as the

Leicester, Oxford Down, and several others which we might name. The great masses of sheep in this country are grades of the Leicester, and they have shown themselves admirably adapted for being crossed with the rams of the dark-faced breeds. The progeny mature rapidly, and soon become of size sufficient for the markets, and they weigh like lead when well kept. The wool also sells well relatively in the markets.

The young man, then, who is to succeed well in growing sheep for the above-mentioned purposes must attend to several requisites. He should begin with good grade shearing ewes. Let him then fix upon the type of cross which he would like to introduce, whether Oxford, Shropshire, Hampshire, Southdown, or any other. Let him adhere to this cross, using only vigorous and well-bred rams. The lambs may be dropped on the grass if the Christmas market or that of Great Britain is the one sought. The ram lambs among them should, without fail, be castrated when from four to six weeks old. When weaned, a piece of rape should be ready for them, which will push them on, at little cost, rapidly for the market. As rape will not grow on heavy soils, a grain ration of oats, peas, or clover, or peas and oilcake, may take its place. When intended for shipment to Britain it is probable that it will be found a good practice to shear them early in September, and then to feed them through the winter, in lots not too large, in one pen. The food may consist of hay, some roots, and a grain ration of oats and peas in equal parts. Lambs treated thus will bring fully \$6 to \$7 per head at the holiday season, and fully \$8 to \$9 per head in the spring for shipment to Britain. When farmers can get these prices for their lambs, and average one each per ewe, which is a low estimate, they are making money at the business, for the fleece of the dam and the manure obtained will probably pay her keep.

The old plan of selling lambs for an average of \$3 each in autumn to the local butcher should be discarded. Raise a better class of lambs and they will find a better market, with a correspondingly better price. Never allow the ewes for breeding mutton lambs to become more than four or five years old, or there will be difficulty in preparing them for the market. When they are to be turned off also there is no cheaper fattening food ration than rape.

Size and Substance in Horses.

Those who are in direct touch with horse markets know that the most effective consideration that determines the market value of a draught or driving horse is the substance of the one and the size of the other. This, however, is not generally recognized, for if it were there would be fewer horses of indifferent types at present seeking a market. For the massive, powerful, and wearing draught horse there are waiting purchasers, and the same is fully as true of the rangy, stylish, and ambitious driving horse.

To arrive at an understanding as to how these desirable attributes may be secured, the matter must be traced to its furthest source and every feature of the work of rearing horses must undergo scrutiny. The most fertile source of error undoubtedly is the use of sires inferior, individually and in pedigree, or what is fully as grievous a blunder, the use of unsuitable sires, meaning thereby those that are not likely to mate well with the mares to which they are stunted. That horseman knows not the first principles of his business who is wheedled out of his good money by a self-asserting friend or groom, through inducing him to patronize a stallion that has been specially prepared

by drugs and pampered by soft feed so as to approach the form of a draught horse. Such horses never fail, unless the mare is unusually vigorous, to get puny and rickety colts. While instances of this abound, yet not less infrequent are worse results obtained through mating animals of such opposed types, that common sense without a tincture of "horsey" knowledge would immediately ridicule the action. There is beyond dispute a dearth of high class draught brood mares through the country, yet if even these were kept in their spheres, and the lighter mares as rigidly within theirs, a great improvement in our marketable horses would at once result.

Another important matter that has a striking influence on the size and substance of our horses is the indifferent care that is in too many cases given to the brood mares. A brood mare nursing a lusty colt has a heavy extra tax put upon her system, and to sustain her so that the colt may go right ahead she must have something more than grass or dry hay. She cannot do a hard day's work and at the same time fully do her maternal duty by her colt. When on pasture she should have green fodders and bran, and if in the stable, milk stimulating foods, such as clover hay, or ensilage, bran or chopped oats. After the mare has dropped her foal there need be no fear of keeping her in too high a condition.

All the above observances will amount to naught if the colt is not given every comfort and fed as strongly as is compatible with health. It should be taken early under guidance and taught to relish a mess of chopped oats or of bran before it has left its mother. There is a great variety of advice in the opinions of breeders in regard to the time of weaning foals, some advocating six months, or even earlier, as the best time, and others following the practice of letting them run with their dam until within a couple of months of the next parturition. As long as the mare's flow of milk is good, and she can be spared from farm work, it is sound policy to let the colt run with her, for there is nothing so nourishing and growth producing in the case of young animals as the milk of the dam. The time of foaling is also a consideration that has an effect on the after-growth of the foal. A fall colt in comfortable quarters (and there is the rub in rearing fall colts), will make more rapid progress and attain to a greater size than a spring colt, as both the dam and the colt may be better attended to during the winter season. The fact also is well known, that nothing will more surely and markedly affect a colt in his growth than the slightest check at weaning time. This is fully provided for in the case of the fall colt, as it goes right ahead at weaning time on pasture.

Undoubtedly, climate and soil strongly affect the bone, muscle, and growth of a colt, but these are less influential than any of the others we have mentioned.

Better Days for the Farmer.

Better days are coming for the Canadian farmer, or we do not read aright the signs of the times. We do not make this statement on the principle actuating the little boy, who, going through the bush at night, whistles to keep his courage up. It is based upon various indications which are given below.

The shortage in the crop in many countries of the world will bring advantage to this country where the crop is fairly good. In the United States the grain crop is below that of several years past. The corn crop is not more than seventy-five per cent., which means a serious deficiency of this cereal, both for purposes of export and feeding, as compared with former years. Winter and spring wheat are both below the average, and the oat crop is the poorest harvested in

that country for many years, and the same is true over large areas in the potato crop. The shortage is not confined to the United States only, but extends to many countries in Europe, including Great Britain. Owing to an excessive rainfall much damage resulted to the growing crops at a critical period.

For reasons that are not very clear there is also a decline in recent years in the growth of Indian wheat. The crop of 1890 there is less than that of some previous years in acreage and also in yield. The diminished yield is owing to a shortage of the rainfall in winter, but the reasons of a somewhat diminished acreage are not so clear. It may be that the Indian Ryot is also becoming tired of furnishing supplies to the eaters of other countries at prices discouragingly low.

The tide of production appears to have turned. The cycle of the years of plenty has apparently ended for the present, but it is to be hoped that this cycle will not be followed by one of great scarcity. During recent years the agricultural productions of many countries in cereals have been so abundant that the handling of them, even at rates so low, was not a very remunerative business. It is almost certain now, however, that all the old stores, some of them savoring of musty age, will be brought into requisition this year and next in consequence of the shortage.

The result that is almost certain to follow is an advance in price. A marked advance, however, is not probable, since the crops are not short in all the world. For instance, although the winter wheat is in many countries rather under the average, in others, as in Manitoba, the crop is large. With facilities for transit such as the world now possesses, prices become so equalized that any marked advance is not probable in any one country, unless all countries of the world were short in the production of that cereal. Enormous prices, however, are not advantageous in the end. It is prices that are fairly remunerative that are most to be desired, and these we expect are at hand for the farmer in Canada. The general shortage in several countries cannot but make prices firmer, and as our country has this year again a fair crop, we are in a position to profit by the advance. Ontario has been favored this year with a most excellent crop of hay, most of which has been harvested in a very excellent condition. May our farmers make the best possible use of this vantage ground in carrying on the operations of winter feeding. Hay is cheap and can therefore be fed to good advantage.

Compared with other industries in the country the live stock industry of Canada is superlatively great. Let us make it greater by feeding our cereal and fodder products to stores fattened at home.

The insertion of the following table of Canada's exports for 1889 should carry its own moral:

Products of the mine	\$ 4,419,170
Products of the fisheries	7,212,208
Products of the forest	23,043,007
Animals and their produce.....	23,894,707
Agricultural products	13,414,111
Manufactures.....	4,434,949
All other.....	5,854,304
Total.....	\$80,272,456

By this table we are informed that the great industry of our country at the present time is the rearing and exporting of domestic animals and their produce. No other industry of the country even approaches it in magnitude, save that of lumber, and while the latter is sure to decrease, the former is just as sure to increase, and should, therefore, receive closest attention at the hands of the farmer as to the best methods of conducting it.

It may be said, if prices of cereals improve, should we not sell them direct as a consequence. We answer no, so far as coarse grains are concerned, unless the prices for them become abnormally high, as if prices of foods and fodders become firmer over a continent, the prices of the meat grown from these will become firmer also. That the prices of meat will advance somewhat is therefore probable, but the advance may not be very much. Lands lying south of the equator are prolific in their production of cattle and sheep, and in the dead form at least they find their way to the markets of Great Britain. This much is assured already, that the prices of stores are stiffer now than they were a year ago, and many of them are now in the hands of cattle exporters, notwithstanding that these gentlemen say that they lost heavily in the shipping trade last year.

Let our farmers then feel encouraged. Let them produce more and better of all classes of live stock. Let them grow better crops of grain and fodder, and feed these to the stock. Let them build silos, and produce more cheese and more and better butter. Let them give their sons a better education in preparing them for their future life work, and let them seek and obtain better market relations, and they cannot fail to become materially strong. All this they can do, and do it easily, if they will.

A Horse-Breeding Experiment.

Hon. M. H. Cochrane, well-known as one of the most extensive breeders and importers of live stock in America, says the *Breeder's Gazette*, is conducting an experiment at his Hillhurst farm, Canada, which will be of great interest to horsemen. He has for many years been impressed with the wearing qualities, fine action and finish of the English Hackney, and is the owner of some costly specimens of this famous British breed. He has during the past few years also acquired by purchase a choice collection of American-bred trotting brood mares and stallions, and he now proposes to interbreed these to a limited extent, with a view to determining what sort of a cross will result from an admixture of the two bloods. In fact, his attention was turned to this point several years ago, and he has already a few cross-breeds which certainly afford good ground for the belief that the "nick" will be a success, so far at least as the production of a thoroughly useful driving horse is concerned. Just how much speed can be attained is of course an open question, but that a long-distance trotter can be evolved by this method seems entirely within the range of probability. The two chief trotting-bred sires in service are Floren, by Piedmont, out of Flower Girl (own sister to Manzanita, 2:16, and Wildflower, 2:21), by Electioneer, and Aubrey, by Epaulet, 2:19, dam Bonnie by Kentucky Prince; second dam Bonnie Lassie by Rysdyk's Hambletonian. A track has just been provided at the farm with a view towards developing somewhat the youngsters in the stud, and it seems probable that ere long Hillhurst will acquire quite as much prominence as a horse-breeding establishment as it has so long enjoyed as a headquarters for choice cattle.

The Dominion Sheep Breeders' Association Meeting.

A meeting of the members of the above society was held Thursday evening, September 18th, in the board room of the Toronto Industrial Association, the vice-president, Mr. Russell, in the chair. Mr. D. McCrae, of Guelph, was the first on the programme with a paper entitled "A Fleecce of Wool," which we give in full in this issue. This was listened to with interest by those present, and when concluded a hearty vote of thanks was accorded Mr. McCrae. A paper was next

read by Mr. Spencer, on "The Diseases of Sheep," in which the common troubles dependent on parturition were treated of in a thorough and practical manner. The members showed their appreciation of Mr. Spencer's effort in tendering him a vote of thanks. Mr. Hammer submitted a motion which was seconded, stating that the time has now come when the Industrial should give prizes for Canadian-bred sheep, and no longer compel them to compete with highly fitted English sheep. Mr. Campbell supported the motion, but with Mr. Jackson thought that the exhibitor should be the breeder. There was no difference in the effect of going to Great Britain and selecting show animals, than in scouring the country for the same. Mr. Hammer thought the prizes should be duplicated to cover all the sections. The Vice-President, Mr. Russell, spoke of another injustice that existed in respect to the numbers required to be shown in a flock, and he thought that it would be a proper matter for the association to take action upon. In amendment to the above motion it was moved by Mr. Jackson, seconded by Mr. R. Snell, that the association suggest to the Industrial board the advisability of offering special prizes for flocks, and in sections for young lambs bred by the exhibitors. The original motion was carried on a vote being taken. It was then moved, seconded and carried, that the association appoint a committee to revise the classification of sheep and report at the next meeting. The members of the committee chosen were: Messrs. Jackson, Snell, Hammer, Campbell, and the President. A motion moved by Mr. Jackson, seconded by Mr. Hammer, was also carried, which asked that the rules of the association be so amended that the annual meeting be hereafter held previous to the first of February. The meeting then adjourned.

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Holstein-Friesian Association Meeting

In the board room of the Industrial Association a number of the members of the above society assembled on Wednesday afternoon, September 17th; the president, Mr. D. E. Smith, in the chair, supported on his right by the secretary, Mr. Gifford. After some discussion over the question of a herd-book for the registration of the stock of Canadian breeders, Mr. Stevenson moved, seconded by Mr. Hallman, that a committee be appointed to obtain all possible information in regard to a herd-book, and that action in the matter by the association be deferred until the winter meeting.

The President in retiring from the position in which he so faithfully and effectively worked in the best interests of the society, urged the members present to bestow the honor he enjoyed upon other shoulders, and in a brief sketch of the work of the society, he instanced as a step forward in general progress the obtaining of expert judges. The result of the voting for official positions was as follows: President, Mr. A. C. Hallman; 1st Vice-President, Mr. H. Bollert; 2nd Vice-President, Mr. Stevenson; 3rd Vice-President, Mr. Felan; 4th Vice-President, Mr. Kennedy; Secretary-Treasurer, Mr. Stewart, of Parkhill. The new directors elected were Messrs. H. McClougherty and Becken. Messrs. Shuntz and Wm. Smith were elected as delegates to represent the interests of the Holstein-Friesians on the board of the Industrial Association. After choosing Stratford as the next place of meeting, votes of thanks were tendered to the retiring officers, and the meeting adjourned.

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Clydesdale Stock Farm.

THE PROPERTY OF MR. JOHN BELL,
L'AMAROU, ONT.

About thirteen miles from Toronto, and three miles from the station of Milliken on the Midland, this farm consisting of 190 acres of excellent land is situated. The proprietor is Mr. John Bell, who has been breeding and importing Clydesdales for the last twenty years, and more recently has established a flock of Shropshire sheep and a herd of Tamworth pigs.

The stallions at this stud and in use at the time of our visit were Lord Fitz Erskine [710], (5984), and

Ardlethan Boy (5493), [1314], both choice selections from the reputable stud of Messrs. Beith & Co., of Bowmanville. Lord Fitz Erskine is a stallion of high breeding, having a combination of Clydesdale blood elements that is rarely found. He was sired by the famous breeding stallion Lord Erskine (1774), as well as a much sought after premium horse. Lord Erskine, it will be remembered, is by the remarkable stallion Boydston Boy (111). Lord Erskine has a reputation of weight for getting good stock, as shown by the fact that amongst many others he sired Carnbrogie Stamp (4274), The Granite City (5397), and various winners. The dam of Lord Fitz Erskine was Polly Ann (4872) by True Blue (1334). Lord Fitz Erskine, foaled in 1885, and imported in 1887, is a pretty bay with white face and feet. In shape, particularly of the fore part, he shows his ancestry most markedly, being exceedingly like old Boydston Boy in strength and shape of shoulder. He is low to the ground with clean limbs of good Clydesdale character, stout body and full quarter. His crest is magnificent, which gives him a majestic appearance that is added to by a vigorous vitality. This stallion has thrown some splendid stock, which we shall refer to later, but it would be upsetting the foremost principle of breeding if it were otherwise, as he traces back through both his parents to the fountain of Clydesdale blood—Glancer *alias* Thompson's Black Horse. In a yard adjoining was Ardlethan Boy. This stallion is of Darnley descent, he being sired by McCamon (3818), by Blue Ribbon (1061), by Darnley (222). The dam of Ardlethan Boy was Young Bloom of Ardlethan (3508), by Lord Derby (485). McCamon has now many prominent prizes, chief of which was the first and champion cup he secured at the great Centenary Show of the H. and A. S. at Edinburgh in 1884. Ardlethan Boy is a thick and very strongly built horse of great substance. He has an exceedingly pleasing head, a full neck, deep shoulder, tight and stout barrel and strong quarters. He is full of spirit and moves in good style. The latest addition to this stud is one of the crack horses from the well-known stud of Messrs. R. Beith & Co., of Bowmanville, Ont. In purchasing the high priced three year-old Eastfield Chief [1129] (6715) at the recent Industrial, Mr. Bell exhibited commendable enterprise. Eastfield Chief is a stallion of high breeding, as he is sired by Prince Lawrence Vol. VII. S.C.B., by Prince George of Wales, by Prince of Wales (673), and his dam was Bell of Lockroom 6624, by Lord Lyon (489). Mr. Bell paid a long price for this stallion, but he has secured a stallion that has a great future as a stock horse, being as he is in breeding and appearance a Clydesdale of the highest typical excellence. Amongst the mares we particularly noticed Queen Anne, an imported mare of low set and matronly form. She has won many honors, of which the most meritorious was the gold medal at the Ottawa Provincial of some years ago. Nannie is also a serviceable mare of home breeding. She has thrown some excellent foals to Pride of Perth. The best testimonial to the merits of Lord Fitz Erskine as a sire, appeared in the form of two fillies. They were an extra fine pair, and one in particular was of superior merit from a Clydesdale point of view. Besides being of well proportioned and strong build of massive form, she had legs of a rare quality, being as firm in the bone and as clean as a thoroughbred, with the cherished feather of the most typical of Clydesdales. A number of other growthy colts, and a white Shetland and a trotting bred foal at her side, completed the equine exhibit of this stud.

Some time ago a flock of Shropshires was founded by the purchase of five imported ewes. These have added to the flock this spring six lambs of excellent type and quality. They were all about the average in merit, and Mr. Bell may congratulate himself on making a start under such favorable circumstances.

Another word in regard to the Tamworth pigs which Mr. Bell is at present breeding. Of all breeds of pigs the Tamworth has a reputation in England, where they have been bred for many years, for the production of the best quality of bacon. Not only that, but being exceedingly deep and long sided, they cut up better for that purpose than any other hog. At first sight one cannot but feel repulsive towards them on account of their unusual conformation, but closer scrutiny and consideration show that there is an almost complete absence of waste parts in their make up, or in the language of the butcher they cut up wonderfully well. There is no heavy jowl or excessive development of bone to bring down the profits of the feeder.

Dominion Swine Breeders' Association.

A special meeting of this Association, held in the Board room of the Industrial Exhibition Association, September 18th, attracted a large number of breeders and others interested in the swine industry. On the conclusion of a few congratulatory remarks from the president, Mr. Featherstone, the latter called upon Mr. Davies, of Toronto, to favour the meeting with his views in respect to the style of hog that was most wanted. Mr. Davies in complying with the request, intimated that it may be that the hog wanted by the consumer has not originated. Pork packers, however, are unanimous in saying that they must have more lean. Lard is now artificially made, and the result is that though it used to be worth 25 per cent. more than the average cut of the pig, it is now worth 33 per cent. less. The consumer insists more and more on having lean meat. They want more hogs. Those farmers who are raising hogs admit that they are paying better than anything else on the farm, which is largely accounted for by the fact that they are very easily marketed. At a meeting of bacon curers, one of the representatives from Ireland said that he wanted the cursed jowl bred off the pigs he handled. Breed off the superabundant bone and they will run to fat. Fine breeding is inimical to lean meat. On the solicitation of those present, Mr. Davies, the younger member of the firm of Messrs. Davies & Co., of Toronto, made a few remarks in which he informed his hearers that in speaking of lean meat, flesh was meant. A great many pigs were received poor, they having the frame without the flesh. In reply to a question, Mr. Davies stated that there was a greater shrinkage in the case of Canadian bred hogs than those American bred, there being in the case of a 160 lb. Canadian bred hog a shrinkage of 1 1/2 per cent. to 1 per cent. Dr. Bryce experimenting in feeding hogs and the resultant character of the meat, found that if fed on coarse grains the viscera were much larger than those fed on corn, and that the latter had small intestines and are very often diseased. The greater shrinkage in the Canadian hog is accounted for by these results. The Canadian hog is worth in the London market about 1/2 cent to sometimes as high as 2 cents per pound more than the American. In winter time that difference does not continue. In answering the query as to what portion of the carcass was the most valuable and what style of hams was most in demand, Mr. Davies stated that for their export trade to England the most valuable part of the carcass is the ham and the section between the shoulder and quarter, and that the style of ham most wanted was the short cut ham weighing about 14 pounds. Mr. Ormsby remarked that when in conversation with a leading Irish packer he was informed by him that the ham was not the most valuable, and that it was from the backs and middle part that the packer expected to make most profit. The President, touching upon the question of the quality of the pork, said he felt satisfied that pen-fed hogs do not furnish as palatable meat as those running outdoors, and further, that pigs require time to mature to make pork of the best quality. A two year old beef, he asserted, though weighing as much as a three year old, would not give as good quality of meat. Mr. Davies, continuing the discussion, stated that a pig with a heavy shoulder was not wanted, and that it was not desirable to have a ham larger than was compatible with the other proportions of the pig. Mr. H. J. Davis, of Woodstock, being unable through lack of time to prepare a paper, as he had been requested, discussed the hog raising subject in a general way. He was strongly of the opinion that the farmers are not doing justice to the pig. The average farmer says that too many pigs do not pay, and it is generally a hard matter to persuade him it would be better to keep two sows instead of one. One sow would easily yield as much profit as two cows. In times of expensive grain they have to look to other ways of producing pork. Clover feeding and early fattening in the fall are prime essentials. In conversation with a pork packer from Germany, the information was given that a large-boned pig was most profitable to the pork packer but not to the producer, and that if you want to have tasty meat it must be over a year old. He would advise, to ensure success, early maturity and careful attention to the quality of the

meat. The ham is the most important portion of the animal. The large jowl is fast disappearing in all breeds. Mr. D. DeCourcy stated that the most profitable hog was the one that was earliest marketable. A hog that has a ham that weighs 10 to 14 pounds would ordinarily be about six months old. The President very clearly and liberally summed up the discussion by asserting that we need a variety of hogs to supply the various home and export trades.

Mr. Francis Green, Jr., of Innerkip, then read a paper on "The Care and Management of the Brood Sow," which we publish in full elsewhere. In the discussion that followed, the President stated that kindness to a brood sow was the best attention that could be given them, for if angered they get stubborn and careless. The question as to the treatment of a brood sow before farrowing, Mr. Green answered by saying that it was advisable to make pens of them, and to feed up to a short time before farrowing, barley meal, bran, and kitchen swill or water. In speaking of management, the President stated that the smaller and more isolated the pens the better. The best pig he had at the Exhibition had only been in the pen a week or so. He objected to large fine pens where it is usual to store up so many hogs. Mr. White informed the meeting that he had found it best to feed his grain dry to fattening hogs, and he gave them their water through the use of tanks as they needed it. Mr. Ormsby noted that Mr. Sanders Spencer feeds barley meal extensively to all his pigs dry. Mr. H. J. Davis stated that the general course of farmers in his county was to feed brood sows on turnips, and he noticed that they came to the boar in fair condition. If there is anything that tells against the profits it is the feeding of grain. The President remarked that he had fed turnips for years and that he would continue feeding them. He threw them out whole and fed them up to within a week or so of farrowing. He had remarkable success with rape. The Essex pigs of his herd fed on rape all winter, and got nothing else, and they came off in excellent trim.

The delegates were then elected. Those for the Toronto Industrial Board were Messrs. Ormsby and Snell; for Hamilton Central, Messrs. Jas. Main and Brethour; for London Western, Messrs. Green and DeCourcy; for Kingston Exhibition, J. H. Hurd; for Ottawa Central, Messrs. W. H. McNish and W. C. Edwards, M.P. Mr. F. Green, Jr., gave notice of motion to the effect that the time of the annual meeting be changed so as to be held on a day of the last week of the Toronto Industrial. Adjournment followed.

The Care and Management of Brood Sows.

Read by FRANCIS GREEN, Jr., before the Dominion Swine Breeders' Association, September 18th, 1890.

For success in pig raising there is nothing so essential in order to render the undertaking profitable as a good brood sow. She is like the goose that lays the golden egg, but more than one at a time; hence in selecting a young brood sow it is of the utmost importance to see that she be possessed of the characteristics which are obviously adapted to that end. It must be understood that I am not referring to the fancy points of any particular breed but rather to those which are to a great extent applicable to all breeds and which are conducive to the greatest profit, viz., prolificness and maternal solicitude.

In the first place then, I should insist on great length as well as depth, and the teats should not number less than 12, or more if possible. Length gives more space for the young pigs to suckle, and they will not crowd and fight so much and it is besides usually a concomitant of a good number of teats; while depth I have found to be an indication of a propensity to large litters. In the next place temper is important, although even quick-tempered sows can be made tractable by kindness. At farrowing time one is sometimes of necessity compelled to be working round the sow and nothing is so unpleasant as being compelled to be ready to leap out of the pen at a moment's notice. As an instance of the kind system, a young sow (one of our recent importation), which was naturally of a slightly quick-tempered disposition, but which had become quite docile under kind treatment, was giving birth to her first litter; after they

were all come she permitted them under protest to suckle, but showed a disposition to snap at them when they approached her mouth, subsequently she left the young pigs and appeared afraid of them, still keeping up the snapping. I felt some apprehension that she might kill them if left alone, so I resolved to stay with them, and by petting her, induced her in a little while again to lie down while I invited the youngsters to step up and take a drink at the bar, a treat which they at once took advantage of with avidity. After some little time the sow accepted her family cares, still under protest, and the following day she took completely to them. Now I have very little doubt that had she not been handled with kindness both before and at the time of farrowing, she would have killed the whole lot; as it is she is raising us a nice litter.

Our practice in regard to the feeding and management of brood sows is as follows. In summer, up to the time of farrowing, they are fed usually on a little bran and barley meal, mixed with kitchen swill and in default of swill with water on a grass run; in winter, we employ the same feed, pulped mangolds (about $\frac{1}{2}$ to $\frac{3}{4}$ peck, being allowed to each sow, three times a day), being substituted for grass. I am aware that mangolds are considered by many breeders, both in England and Canada, as deleterious to brood sows; that it is said that when fed on these roots the young pigs come weak and often dead, but I wish emphatically to state that last winter we gave a more liberal allowance than usual, and we never had better or stronger litters, or had greater success in raising them. Possibly if mangolds were used as the sole food the results might not have been so good, but in the proportions and quantities fed by us, they were eminently satisfactory.

A week before the pigs are due we remove the sow to the breeding-pen, which is surrounded by a fender composed of planks about nine inches to a foot above the ground. The food of the sow is now usually changed to bran and a little oat chaps, particular care being taken at this time that her bowels are kept loose; if there is any appearance of constipation we administer sulphur and perhaps a little linseed oil in her food. Every day up to the day she is due she is turned out for exercise in the yard. When the young pigs begin to arrive we take them from her one by one, and when they are all come we return them to the sow, and if she takes to them we leave them alone for a time. For a few days we feed the sow very sparingly, gradually increasing the food until the pigs are three weeks old, when she should be on full feed.

There is one peculiarity which I have observed in sows that are in good condition, and especially those that are excellent mothers: they exhibit great reluctance in getting up and leaving their young, so much so that they will neglect to fulfil the calls of nature. Our invariable practice now in such cases is to take a switch and turn out the sow the day after pigging, and compel her to take exercise in the yard, when they will usually at once relieve themselves, and after this there is no further trouble.

Many have doubtless been annoyed by sows lying on their young. In some instances this is owing to carelessness in the mother, and may be counteracted in a great measure by a fender round the sides, sometimes, however, this practice arises from the irritation occasioned by lice. This information I acquired unfortunately by experience, and soon remedied it by a dressing, after which the sacrifice of the innocents was abandoned. The moral of course is, see that your sows are free from lice at farrowing time, if at no other.

Young pigs vary a good deal in the time at which they commence to eat: some will come to the trough at two weeks, others not till three or four weeks; I need not say that the earlier one can get them started the better, not only will the young pigs grow more rapidly, but the drain on the sow is also somewhat relieved. Our custom is to partition off a small portion of the pen with boards, nailed at such a height that the young pigs, but not the sow, can run under and feed out of a small trough, the capacity of the trough being in its length not its depth. Six weeks after farrowing we wean our sows, which are then relegated to their old quarters, their food consisting of a light ration at first, after which the method mentioned in the beginning of this paper is resumed *de novo*.

Edward Robbin, Secretary and Treasurer of Ameliasburg Agricultural Society, writes:—"Stockmen like the LIVE STOCK JOURNAL, and I think we will take more another year."

A Fleece of Wool.

Read by D. McCRAE, before the Dominion Sheep Breeders' Association, September 17th, 1890.

Wool is the most important of textile fibres. It was early used for clothing, and is now a necessity in such a climate as ours, and in all parts of the world has been found the healthiest covering for mankind. Wool is a modified form of hair, distinguished by its slender, soft, serrated structure. Just where animal fibre ceases to be hair and becomes wool is hard to say. One class merges into another, and a regular gradation can be found, from the soft silky Merino to the hard bristles of the wild boar. The serrated edges of wool gives it the property of clinging in yarn and felting in cloth. The serrations all lie one way from the root up. They can be readily noted by drawing a single fibre between the finger and thumb. One way it will slip smoothly, the other way it will feel quite rough. The finest Merino wools have 2800 serrations per inch, with a diameter of $\frac{1}{160}$ th, the Leicester about 1800, the coarsest wools 500, with a diameter of $\frac{1}{27}$ th of an inch. Fine wools are all wavy. Those with the most serrations being most finely waved in structure. In most wools the closer the staple and the more wavy the wool the more will it yield of the finer qualities. Loose open fleeces yield more of coarser qualities. Wools with a soft, rich feel improve during the process of manufacture, whilst those with a hard, bristly feel get coarser as they are worked. Wool varies in character according to the peculiar breed of sheep which yield it, and also with the nature of the soil, the food, shelter, and climate. In wool of first-rate qualities the fibres are fine, soft, elastic, sound, of good color, and free from impurities. Combing wools require to be long instead of fine and soft, and for some purposes require to have a good lustre. Very little fine wool is grown in Ontario; combing and medium wools forming the bulk of the clip. Canadian combing wools are usually of a good length and with a strong elastic fibre, sound and good. There are, however, in some sections far too many clotted fleeces, and some with a disagreeable yellow bottom. Otherwise, for a sound elastic fibre Ontario wools compare favorably with any other part of the world. In Manitoba and the North-west, so few wools grown are brashy and tender, and apt to be unsound in staple. In color our wools compare unfavorably with British wools. The reason of this is not known to me. It may be the confinement in winter, or the hot suns of summer, but the color is not in them. We are much worse in the matter of impurities. The big soft burrs in Canadian wool are a disgrace to the wool-grower, and a source of much annoyance and loss to the manufacturer. They have to be clipped out singly or in bunches by hand. The same labor would have removed the weed before the damage was done. The best of farmers market their wool with a quantity of seeds, bits of straw, etc., about the neck of the fleece. Feeding, as many do, with racks, it may be difficult to avoid this, but it is none the less a drawback in the value of the wool. Wool may either be shorn washed, or unwashed. An increasing number of farmers are shearing their wool unwashed, considering that the greater weight of unwashed wool counter-balances the difference in price. The washing which a fleece receives on the sheep is not enough for the manufacturer, and the work has to be done again. Most Canadian wools are washed before being clipped, but the great bulk of the world's clip is shorn unwashed. A skillful shearer will clip the fleece from the sheep in one unbroken sheet. In this condition the fleece is spread out on a table or sheet, tags and dirty locks removed, and loose pieces put by themselves, the sides folded over and the fleece rolled up inside out, the neck twisted and put around to bind the whole. When opened on the sorter's table the fleece will unroll, retaining its form, which greatly helps the sorting. There are two or three qualities in every fleece. Most of Canadian will give from four to six grades. All wool has to be graded into qualities before it is ready for manufacturing. Generally the best part of the fleece is from the shoulder and sides of the animal. Over the neck and back the staple is more irregular, and has frequently seeds and impurities. The loin is somewhat shorter in staple. The breech is often the coarsest, and sometimes is

hairy and kempy. Belly wool is usually short and dirty. The front of the throat fine but short. Some farmers do not remove the dirty dung locks, which should always be removed. Others gather them and put them in a single good fleece. Any careful handler can quickly detect this without opening the fleece. Others roll up a clotted fleece with staple out, and if many be clotted roll all their clip in this way.

Buyers are always suspicious of such wool, and dealers ought only to buy at a reduction in fleeces put up in this way. Wool clipped under a year old is known as "shorn-lambs," very little of this is made in Canada. First clip at twelve to fifteen months is known as "hogg" or "teg" wool, and for many purposes this is finer and more valuable than the bulk of the clip. British dealers keep it separate. Second and following clip are distinguished as "wether" or "ewe" fleeces. Usually in Canada all are marketed together.

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL

Destroying Lice on Pigs.

As I have very often seen inquiries from many persons in regard to the above, I send you my experience in the hope that it may be of use to fellow breeders. I do this all the more readily because of the fact that I have given the matter considerable attention and thought. Last fall I had an especially hard experience, as about thirty of my pigs were very badly infested with lice. I tried coal oil on them but the only noticeable effects of this was to lessen the numbers slightly. I next tried tobacco water and I found it but little better. I then thought of coal tar and I tried it, putting it on a few of the pigs. The next day there was not a living louse on them. Following up the experience gained, I then took a white-wash brush and a pail of tar and with that I daubed the rest of the pigs, and the happy result followed that all the lice were destroyed. The tar, as far as my observation goes, did not seem to have any bad effects whatever on the pig, and as the pigs were running in the yard the tar wore off in a few days.

RATTLEK.

[The most generally approved practice in getting rid of lice on pigs, is to use a mixture of turpentine and machine oil or lard mixed in proportions of $\frac{1}{2}$ of turpentine and $\frac{3}{4}$ of machine oil. This not only kills the lice but destroys the eggs. It would be a cleaner substance to use than tar, and preferable especially to breeders of white pigs, who, by the way, have a particular dislike to anything black.—ED.]

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL

The Standard-Bred Horse.

II. MESSENGER AND HIS INFLUENCE.

The admirer of the beauties existing in the realm of nature, watching the trickling of a little stream near its source in the mountain side, follows it in mind as it travels on its course, and notes with astonishment the increasing force with which it speeds downwards; but how much more so does the close observer in the domain of breeding marvel at the potent influences that have emanated from one animal gathering and culminating, as the genealogical tree spreads its branches, into pronounced, peculiar, and valuable attributes. While there is a doubt as to the source of trotting influences, yet it is common and perhaps just, to give Messenger the benefit of the doubt, and say that from his loins alone came all the potential influences that determined largely the characteristics of the standard-bred horse.

Analysing carefully the pedigree of Messenger, we may trace it back many removes. The most generally accepted tabulated pedigree is that given in the English Stud Book, which states that Messenger was got by Mambrino, he by Engineer, by Sampson, by Blaze, by Flying Childers, by Darley Arabian, an importation into England at the time of Queen Anne. The dam of Messenger is said to be by Turf, he by Matchem, by Cade, by Goldolphin Arabian. Tracing

his pedigree in this way makes Messenger an exceedingly well-bred thorough-bred. But Mr. J. H. Wallace, our best authority on such matters, states decidedly that Messenger was not a pure thorough-bred, as he asserts that Engineer, the grand-sire of Messenger, was not a thorough-bred. Again there appears to be some question as to whether the dam of Messenger was by Turf as reputed. Amongst the many items that have gathered around the pedigree of Messenger that are placed within our ken by Mr. Leslie McLeod, in his admirable monograph on the National Horse of America, is one of special historical interest. Mr. Henry Euren, in the first volume of the Hackney stud book, shows that there are strong reasons for believing that to Blaze, one of the ancestors of Messenger, we must credit a strong and powerful influence in producing the standard-bred horse of to-day. Mr. Euren shows that Blaze was the sire of Shales, the founder of the famous family which may be said to be the original source of the Norfolk Trotters, the only trotting horse, strictly speaking, that England has produced. We are all the more ready to add prestige to the influence of Blaze when it is remembered that Hambletonian had a strong infusion of this blood, as Bellfounder, the sire of his dam, was a descendant of Shales.

As Messenger was in service for twenty years in various States, including Pennsylvania, New Jersey, Long Island, and New York, he left a great number of foals which were in after-life noted for their wearing qualities and speed. Although there is no reason or proof for believing that Messenger could himself trot, yet there is sound evidence to the effect that his progeny invariably, besides those yet famous in our day, were remarkably fast and enduring travellers. Mr. Wallace writes of Messenger: "It was the crowning glory of his twenty years service in this country that he left a race of driving horses of unapproachable excellence, and as he inherited this quality from his sire, so he imparted it to his sons and they in turn to their's until we have to-day from this stock, the fleetest and stoutest trotters in the world."

The most famous son of Messenger was beyond a doubt, Mambrino, while coming next in importance are Winthrop Messenger, and Bishop's Hambletonian. From the loins of Mambrino, sprang two of the most illustrious families in trotting annals. Mambrino sired Mambrino Paymaster, in turn the sire of Mambrino Chief, the founder of the remarkable family of that name. On the other hand Abdallah, another son of Mambrino sired the world famous Rysdyk's Hambletonian the founder of the Hambletonian family, and a much used source of emanating influences, that have quickened the trotting proclivities of many other families less famous.

S. C.

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL

The Pure Breeds of Cattle.

BY PROF. THOS. SHAW, ONTARIO AGRICULTURAL COLLEGE.
FIFTH PAPER.]

SHORTHORNS IN THE UNITED STATES.

The fame of Shorthorn cattle soon extended far beyond the little island of their origin. Longing eyes were turned toward them from the North American continent before the declining years of the last century were altogether gone. The Messrs. Goff and Miller, of Virginia, led the way in the good work of importing them, a work which has been carried on to a greater or less extent, almost uninterruptedly since their time. Before the year 1790, Shorthorn imported by these gentlemen fed in the pastures around Baltimore. They were soon after removed to Kentucky, for the movement of population was then, as now, toward the west.

Kentucky was, even at that early period, renowned for its blue-grass pastures, which, in its genial climate sustained the animals which fed upon it in undiminished vigor throughout the greater portion of the year. This fine grazing region soon became the favorite home of the Shorthorns in the United States, and several of the best herds on the American Continent were established in Kentucky during the first half of the present century. The State of New York, however, long disputed for supremacy with Kentucky in breeding Shorthorns, and early in the century a

majority of the cattle imported were for herds established or to be established in the former State. A detailed list of these importations would be foreign to the object of this paper, but a brief reference to some of them may prove of some interest. From the commencement of the century until the year 1840, several important purchases were made, not only for the State of New York, but for those of Kentucky, Ohio, Pennsylvania, Maryland, and Massachusetts. Prominent amongst the importers of that period are the names of Samuel Miles Hopkins, New York; Col. Lewis Saunders, Kentucky; Col. John Harr Powell, Philadelphia; and a company of breeders in the Scioto Valley, Ohio. The prices paid by those pioneer importers, though they can never be known with certainty, are thought on good grounds to have averaged from \$300 to \$500 each. The prices obtained for such of them as again exchanged hands, and of many of the progeny bred from them, brought a still higher average.

These animals were of various strains of breeding and were good individually. The craze for those which were line-bred and which after the middle of the century bore the foremost breeders away upon its current had not yet set in.

After the middle of the century the live stock interest revived and the work of importation was carried on with a vigor which hitherto had had no parallel. It was during these decades that many of the famous herds were established which brought so much of renown to the Shorthorn interest in America. Foremost among the importers of this period stand the names of Col. Lewis G. Morris, New York; N. J. Bear, New York City; Samuel Thorne, of Thornedale; and James O. Sheldon, Geneva. At the dispersion sale of the famous Kirklevington herd in 1850, American gold captured some of the favorites of Thomas Bates, and at the more famous dispersion sale held by the estate of the Earl Ducie, in 1853, American purchasers pressed Englishmen very hard upon their own ground, and captured a considerable number of the very best animals in the herd. These purchases consisted principally of representatives of the Duchess and Oxford families, although others, as the Princess and Wild Eyes, were not overlooked. These animals were bred in line in America to a greater extent even than in England. In this we find an explanation of the somewhat numerous exportations from America to England for which that period was noted. The prices paid for these imported and exported Shorthorns at this period were very high. In some instances as much as \$5,000 was paid for a single animal, and still larger sums were realized as the years went by. Prices continued to advance until more than \$20,000 was occasionally paid, and thus the boom in Shorthorns continued to advance until the period of disaster came.

The period of extravagant prices paid for Shorthorns reached the culminating point at the famous New York Mills sale which was held in 1873. The owner of this famous herd, Mr. Samuel Campbell, had purchased that of Mr. Sheldon in 1870. Mr. Sheldon had purchased from Mr. Thorne, in 1867. Mr. Thorne had bought the entire herd of Col. Morris, in 1857, and Col. Morris had purchased that of Mr. Bear, in 1854. The three gentlemen last named, viz., Mr. Bear, Col. Morris, and Mr. Thorne, had laid the first foundation of their herds in the blood of the choicest strains which had long been the pride of Thomas Bates. Thus it was that at the sale of Mr. Campbell there was focused, as it were, the blood of the purest representatives of these families. The sale, therefore, became simply a contest between the leading breeders of England and America for the pure representatives of these families.

The sale had been extensively advertised in both England and America. Mr. Carr, noted as the author of a work on Booth Shorthorns, prepared the sale catalogues with much care and wisdom, a task for which, rumor says, he obtained but scant recompense, a circumstance which does no honor to the man into whose pocket he thus helped to put so many thousands. It is very significant that not long after this the ready pen of this interesting writer was buried along with him. The sale was opened with a \$10,000 bid for the 2nd Duke of Onida. Twelve Duchess cows and heifers averaged \$20,900 each. One of these was sold for \$40,600, the highest price ever obtained for a bovine, and the 108 animals composing the herd, realized \$380,000. The purchasers of these came from England, New York, Vermont, Ohio, Pennsylvania, Virginia, Michigan, Minnesota, and Canada.

Not long after this sale, Shorthorns began to decline in value. This decline has been continuous and without any periods of marked revival. That it is so, is perhaps a blessing to the Shorthorn interest and to the community at large, for when pure bred run up into the thousands in price, the average farmer very naturally concludes they are not for him. Good sires, well adapted to the improvement of ordinary herds and also for grading purposes, may now be purchased for sums which any farmer can afford to give.

The first volume of the English Shorthorn herd-book was published in 1822. The first Shorthorn herd-book in the United States was established by Lewis F. Allen, Buffalo, N. Y., in 1846. In 1833 it was purchased by the American Shorthorn Breeders' Association, with headquarters at Chicago, Ill.

The number of Shorthorn breeders in America in 1846 was put down by Mr. Allen at fully "four thousand, with herds of half a dozen to several scores of cattle each." It is not improbable, therefore, that the United States has to-day fully one hundred thousand pure Shorthorns within her borders, and that the number of animals improved by Shorthorn blood includes several millions.

How truly may it be said of the Colling Bros., the Booths and Thos. Bates, that in laying the foundations on which this stupendous Shorthorn super-structure has been reared, that "they builded better than they knew."

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL.

Brood Sows.

WINTER FEEDING AND MANAGEMENT.

As I have had considerable experience with Chester Whites, Poland Chinas, and Berkshires, and have been successful in keeping them free from difficulties and trouble of all kinds in farrowing, etc., I give you my method of feeding and managing brood sows during winter.

In the first place, after the sow has been served, I let her have free access to the barnyard, and I feed her on solid grain, such as peas, corn, or barley, for the first two months. Then I begin to feed cooked grain, using such as peas and barley soaked, for the next month with piece of fresh meat, such as beef. When the fourth month comes around I have my sow put in a yard or a building with no floor but with plenty of bedding, and I feed her on chopped grain with house-slops, and at times give her a piece of fresh meat, for this I have found to be an excellent preventive to keep the sows from eating their young. It will be found useful in many cases. When I notice that a sow is about to farrow, I watch her closely to see she does not become buried too much, and if she has I throw part of the straw away from her and see that every pig is put alongside of the sow as fast as she farrows them. When done, withhold the feed from her for twelve hours, then feed her on some warm drink. Be careful not to give her an overdose. After two days pass, feed her all she will eat, and in six weeks wean your pigs, and your sow will be ready in another week to be served again.

J. H. HOUSER.

Canboro, Ont.

Milk in Partnership with Beef.

EDITOR CANADIAN LIVE STOCK AND FARM JOURNAL.

I have read with great interest the discussion on the general purpose cow, but not till the article by Mr. McNish appeared was I stirred enough to take part.

We will suppose that the average farmer has a wife and family, about 150 acres of land, twenty or thirty cattle, about twenty-five sheep, five or six horses, twice as many hogs, and fowls to suit the bent of his or his wife's mind. He must also have from \$500 to \$1,000 worth of machinery, and last but not least, considerable debt.

There is no doubt now, a tendency for farmers to have larger farms, as the machinery needed for an average farm will work a larger one quite as well. Then a great many of those who own small farms are selling out and going west.

The farm cow contributes milk, butter, and cream for the farmer's table, is the mainstay of the calf till it is about six months, and supplies a great portion of the food for the hogs

and fowls on the farm, this from her milk alone, without considering the surplus of butter. Nor is this all, it is necessary that she so stamp her progeny, that it, at two or three years old, with proper food, sells readily for from \$40 to \$60. And she, when getting up in years, must be turned off for beef. Considering all this, what can we say but that she is a necessity?

The farmers of Ontario have no reason to decry the Shorthorns. They have made them thousands of dollars. If the Holstein or Ayrshire, to a greater or less extent, supplant the Shorthorns, it will be a direct judgment on the breeders of Shorthorns who, for their own selfish aggrandisement buried the Shorthorn general purpose cow under a mountain of beef. "As a man soweth, so shall he also reap." If we cannot have form and milk, then milk is the necessity and form the luxury.

A YOUNG FARMER.

Holyrood, Ont.

Toronto Industrial Exhibition.

In all respects, and perhaps most particularly in being fully representative and exceedingly educational, the Industrial of 1890 has been an unqualified success. The multiple interests of Canada, with its varied and valuable resources, were successfully brought within the easy discernment of all, and the value of the result from an educational standpoint is beyond measurement by adjectives. The effect of such a wonderful showing of agricultural productions is a fountain of strong and good influences, and not the least affected industry is that which we have most to heart. Our stockmen now realize that it is an honor indeed to secure the highest laurels at Canada's greatest exhibition, and just as clearly do they recognize that to be sure of any standing there, they must put forth their strongest efforts to breed or import the very best animals that shrewd intelligence, matured skill, and alert enterprise can produce or secure. Our farmers there find before them a text book with living animals for characters, far more easily and truly understood than any written by the hand of man. Exhibitions of such scope as the recent Industrial give our live stock industry an impetus amongst farmers that cannot be checked, while they also as effectually stimulate our stockmen to utilize to the full our unparalleled facilities for the production of the highest and best type of domesticated animals.

Cattle.

SHORTHORNS.—This popular breed were, as usual, to the fore, the exhibits being good, and most of the classes well filled. In aged bulls, J. & W. Russell repeat their last year's victory, with Stanley—2538, a good dark roan, and prize going to a red bull, Deacon, owned by James Leask, Greenbank, a bull of such excellence in the fore quarter as makes him appear to be not quite as good at the tail end as might be desired. In three-year-olds, J. & W. Russell again took 1st, with the imported red bull, Windsor, who has improved considerably since last year. Thomas Ballantyne & Son won 2nd prize, with the imported Cruikshank bull, Prince Royal, a bull with good back, flank, and thigh. Master Ingram, by the show-bull Sir Arthur Ingram, dam Havering Nonpareil II., shown by Thomas Nelson & Sons, Bow Park, won 1st in the two-year-old class. He is a fine lengthy bull of nice quality, with good top and bottom lines, and good head and horns. Robert Davies, Toronto, who has lately entered the lists as a Shorthorn breeder, took 2nd with Northern Light (imported), a bull with good body, but only in ordinary flesh. William Chisholm, Brisbane, took 3rd with Gladstone II. In yearling bulls, Eastwood Bros., Mimico, took 1st with Cromwell, a good bull, with a nice level back; Bow Park standing 2nd, with Roan Duke, a beautifully-headed bull of good quality, with excellent hind quarters. John Currie's (Everton), War Eagle, took the 3rd prize. There were no less than 22 entries in the class for bull calves. R. & S. Nicholson, Sylvan, obtaining the red ticket; Thomas Ballantyne & Son, the 2nd; and J. Miller & Sons, Brougham, the 3rd prize. The coveted silver medal for best bull of any age fell to Bow Park, with Master Ingram. In aged cows, Bow Park took 1st and 2nd prizes respectively, with Lady Oxford and Waterloo Isabella II., the former later on securing the medal for the best female of any age. J. & W. Russell were awarded the 3rd. There were only two entries in the three-year-old class, 1st prize going to Bow Park for a light roan cow, Isabel 3rd, now carrying her third calf. J. & W. Watts, Salem, took 2nd prize with a smooth roan cow, with grand ribs and front. In two-year-olds Lady Aberdeen 2th, a heifer with a beautiful brisket and good ribs, took 1st prize; and Julia, a red and white cow, a little out of condition owing to suckling a calf, took 3rd, both being owned by T. Nelson & Sons. J. & W. Russell took 2nd with Rotabel, a grand-fronted beast. In yearling heifers, Matchless 2th, a roan daughter of that grand old show-bull, Bampton Hero, and who last year took 2nd as a heifer calf, now stood at

the head of the list. Royal Princess, shown by J. & W. Russell, won 2nd prize, and Isabella V., a white heifer from Bow Park, stood 3rd. There were 17 entries of heifer calves, and 15 appeared in the ring, and we consider it the best collection of heifer calves exhibited for some years. J. & W. Watts had the winner of the 1st prize in Matchless 9th, a calf of grand quality, with plenty of room to grow in, and a wealth of hair. J. & W. Russell secured 2nd prize, and T. Ballantyne & Son won 3rd prize. For the best four calves bred by exhibitor there were 5 entries; R. & S. Nicholson repeated their last year's victory, followed in the order named by J. Miller & Sons, and J. & W. Russell. Three herds competed for the herd prize, the result being as follows: 1st, T. Nelson & Sons; 2nd, J. & W. Russell; 3rd, R. Davies.

Heifers.—Bull, four years old and upwards—1st, J. & W. Russell; 2nd, J. Leask. Bull, three years old and under 4—1st, J. & W. Russell; 2nd, T. Ballantyne & Son. Bull, two years old and under 3—1st, T. Nelson & Sons; 2nd, R. Davies; 3rd, W. Chisholm. Bull, one-year-old—1st, Eastwood Bros.; 2nd, T. Nelson & Sons; 3rd, J. Currie. Bull calf, under one year—1st, R. & S. Nicholson; 2nd, T. Ballantyne & Son; 3rd, J. Miller & Sons. Bull of any age (silver medal)—T. Nelson & Sons. Cow, four years old and upwards—1st and 2nd, T. Nelson & Sons. Cow, three years old—1st, T. Nelson & Sons; 2nd, J. & W. B. Watt. Heifer, two years old—1st and 3rd, T. Nelson & Sons; 2nd, J. & W. Russell. Heifer, one-year-old—1st, J. & W. B. Watt; 2nd, J. & W. Russell; 3rd, T. Nelson & Sons. Heifer calf, under one year—1st, J. & W. B. Watt; 2nd, J. & W. Russell; 3rd, T. Ballantyne & Sons. Four calves under one-year-old, owned and bred by exhibitor—1st, R. & S. Nicholson; 2nd, J. Miller & Sons; 3rd, J. & W. Russell. Herd, consisting of one bull and four females over one-year-old, owned by the exhibitor—1st, T. Nelson & Sons; 2nd, J. & W. Russell; 3rd, R. Davies. Female, any age—silver medal, T. Nelson & Sons.

Judges.—W. G. Pettit, Burlington; George Thompson, Acton; Robert Miller, Pickering.

HEREFORDS.—There were three exhibitors of this old established breed, viz., M. H. Cochrane, Hillhurst, Quebec; E. W. Judah, also of Hillhurst; and F. A. Fleming, Toronto. The exhibits, while not so numerous as last year, were, however, fully up to the average in quality. The old veteran, Cassio, took 1st as usual in his class, and also the medal for the best bull, any age. He has lost none of his old time shape and vigor. Duke of Chadim, shown by E. W. Judah, who was awarded 3rd last year at this show, took 2nd. In two-year-olds and yearlings F. A. Fleming, was the only exhibitor, and was awarded 1st in each case. In bull calves, M. H. Cochrane took 1st and 2nd, and F. A. Fleming 3rd. The first prize winner being a good thick-fleshed fellow, one of the best we have seen for some time. The strongest class in females was aged cows; imported Pandora, shown by M. H. Cochrane, being awarded the red ticket, Lily VI., shown by F. A. Fleming, the 2nd, and the old champion, Miss Broady (imp.), owned by the same exhibitor, the 3rd. Lily was certainly brought out in first-class trim. We thought Lowland Lass, shown by E. W. Judah, worthy of a place in the prize list, as she has taken premium honors on several occasions. Eastern Empress, a daughter of Cassio, took 1st in the three-year-old class, Miss Broady II., 2nd, and Stella, shown by E. W. Judah, 3rd; the latter, a good straight cow, but out of condition. In two-year-olds, Vanity 3rd, another daughter of Cassio, was 1st. This heifer also secured the medal for the best female, any age. She is a good heifer, but has hardly grown as much as we had expected, and is not so smooth as she might be. She was, however, an easy 1st. Another heifer of the same breed took 2nd, and a good level heifer of F. A. Fleming's herd, 3rd. E. W. Judah was awarded 1st and 3rd in yearlings, and F. A. Fleming 2nd. Heifer calves were good; 1st and 2nd going to M. H. Cochrane, 3rd to F. A. Fleming. M. H. Cochrane was an easy first for the herd prize. F. A. Fleming, this year beating E. W. Judah for 2nd place. In the special prizes for pure-bred and grade heifers, offered by the American Hereford Association, for the best pair of pure-bred Hereford yearling heifers, E. W. Judah was 1st, F. A. Fleming 2nd. For heifers under one year, M. H. Cochrane was 1st, F. A. Fleming 2nd, E. W. Judah 3rd. There were no entries for the best pair of grade Hereford calves under one year.

Yearlings.—Bull, three years old and upwards—1st, M. H. Cochrane; 2nd, E. W. Judah. Bull, two years old—1st, F. A. Fleming. Bull, one-year-old—1st, F. A. Fleming. Bull calf, under one-year-old—1st and 2nd, M. H. Cochrane; 3rd, F. A. Fleming. Bull, any age, silver medal—M. H. Cochrane. Cow, four years old and upwards—1st, M. H. Cochrane; 2nd and 3rd, F. A. Fleming. Cow, three years old—1st, M. H. Cochrane; 2nd, F. A. Fleming; 3rd, E. W. Judah. Heifer, two years old—1st and 2nd, M. H. Cochrane; 3rd, F. A. Fleming. Heifer, one-year-old—1st and 2nd, E. W. Judah; 3rd, F. A. Fleming. Heifer calf, under one year—1st and 2nd, M. H. Cochrane; 3rd, F. A. Fleming. Herd, consisting of 1 bull and 4 females, over one-year-old, owned by exhibitor—1st, M. H. Cochrane; 2nd, F. A. Fleming; 3rd, E. W. Judah. Female, any age, silver medal—M. H. Cochrane. Special prizes for pure-bred and grade Hereford—Best pair pure-bred Hereford yearling heifers—1st, E. W. Judah; 2nd, F. A. Fleming. Best pair pure-bred Hereford heifer calves, under one-year-old—1st, M. H. Cochrane; 2nd, F. A. Fleming; 3rd, E. W. Judah.

Judges.—John Miller, Markham; R. Gibson, Delaware; R. B. Sangster, Lancaster.

POLLED ANGUS.—There were only two exhibitors of this breed, and the Hillhurst herd had it all their own way for the most part; Dr. Craik's herd not being in very good show-yard trim. In three sections, viz.: aged bulls, two-year-old bulls, and two-year-old heifers, there was but one animal exhibited. Lord Hillhurst, besides being first in his own class, took the medal for the best male, and Jeanetta, a three year old cow who was first in her class, was given the medal as the best female. We should have preferred Lady Ida Forbes winner of 1st in aged cows, for the championship. The first prize herd shown by M. H. Cochrane, were all sired by Lord Hillhurst. M. H. Cochrane's cattle were as usual in first class order.

Awards. Bull, three years old and upwards—M. H. Cochrane. Bull two years old—Dr. R. Craik. Bull one-year-old—1st, Dr. Craik; 2nd, M. H. Cochrane. Bull calf, under one year—1st and 2nd, M. H. Cochrane; 3rd, Dr. R. Craik. Bull, any age—silver medal, M. H. Cochrane. Cow, four years old and upwards—1st and 2nd, M. H. Cochrane; 3rd, Dr. R. Craik. Heifer, two years—M. H. Cochrane. Heifer, one-year-old—1st, 2nd and 3rd, M. H. Cochrane. Heifer calf, under one year—1st and 2nd, M. H. Cochrane; 3rd, Dr. R. Craik. Herd, consisting of 1 bull and 4 females, over one-year-old, owned by the exhibitor—1st, 2nd, and 3rd, M. H. Cochrane; 3rd, Dr. R. Craik. Female, any age, silver medal—1st, M. H. Cochrane.

Judges.—John Gearie, London; James King, Brampton; John Miller, sen., Brougham.

DEVON.—We are glad to record a slight improvement in the condition of the cattle of this breed exhibited, although the number on exhibition does not show the increase we had hoped for. There were, as in the Polled-Angus class, but two exhibitors, W. J. Rudd, Eden Mills, and Sam Harper, Cobourg. W. J. Rudd secured the best prizes, including the two medals and the herd prize. The females showed to better advantage than the bulls, being in better trim.

Awards.—Bulls, three years old and upwards—1st, W. J. Rudd; 2nd, S. Harper. Bull, two years old—1st, S. Harper. Bull, one-year-old—1st and 3rd, W. J. Rudd; 2nd, S. Harper. Bull calf, under one year—1st, S. Harper. Bull, of any age, silver medal—1st, W. J. Rudd. Cow, four years old and upwards—1st and 2nd, W. J. Rudd; 3rd, S. Harper. Cow, three years old—1st and 3rd, W. J. Rudd; 2nd, S. Harper. Heifer, two years old—1st and 3rd, W. J. Rudd; 2nd, S. Harper. Heifer, one-year-old—1st and 3rd, W. J. Rudd; 2nd, S. Harper. Heifer calf, under one year—1st, 2nd, and 3rd, W. J. Rudd; 2nd, S. Harper. Herd, consisting of one bull and four females over one-year-old, owned by the exhibitor—1st, W. J. Rudd; 2nd, S. Harper. Female, any age, silver medal—W. J. Rudd.

Judges.—John Miller, Markham; K. Gibson, Delaware; R. R. Sangster, Lancaster.

AYRSHIRES.—There was a grand rally of Ayrshire breeders here. The leading herds were abundantly represented, making in all a display of Ayrshires that to our knowledge has never before been surpassed, if even equalled. The herd of Messrs. James Drummond & Sons, Petite Cote, Que., was well to the fore with a grand collection of fifteen Ayrshires from their herd, already widely known on account of their past record in prize-winning. There is a striking uniformity of type and true Ayrshire character in the herd, which is worthy of careful note. Viola 3rd is a cow of excellent quality and form, being deep-bodied, strong boned and loined, and in every respect a grand cow. She was giving 60 lbs. per day before leaving on her exhibition tour. Lily of Hardington is another cow of rare merit. She is as heavy a milker as the former and is of superior type. The bull calf from this cow which Mr. Guy purchased, took first this year in the yearling class. Lady Scottie and Primrose are a pair of two-year-olds, that for quality and dairy points, would be hard indeed to surpass. Their unbeaten stock bull, Rob Roy, was in splendid trim. He is a bull that never fails to have his merits recognized, so far above the ordinary are they. The herd of Mr. Thomas Guy, of Oshawa, was here in full force, there being in all fifteen head. Butterfly Duke 501, was among the number. He is a good two-year-old, lengthy and deep, with a rare good skin. Violet, that won first at London last year, was also here. She is a strong, serviceable cow, with a splendid body and extra development of the hind quarters. Baron of Parkhill 877, is a yearling of superior merit, and has a grand future before him. A beautiful pair of yearling heifers and a bull calf of good form and quality, completed this collection, which may be said to be on the whole, one of unusual quality. The herd of Mr. Thomas Brown, of Petite Cote, P.Q., was represented by the largest number, his entries being nineteen head. Mr. Brown recently made an importation from the best herds of Scotland, and those exhibited at the Industrial included many of the best. He was most particularly strong in females, as he had a collection of cows that were of the highest quality, and of wonderful depth through the barrel and quarter. Three cows standing together in the stall were typical Ayrshire beauties. They were Fanny Queen, Annie of Barcheskie, and Nellie Osborne. The latter is a very deep white cow, and it is said that Professor Wallace, the eminent Scotch authority, in a work of his took her as his model. These were all imported in May. A nice lot of calves, bulls, and heifers, were also shown by Mr. Brown. Menie Stock Farm,

the property of Wm. Stewart, Jr., Menie, Ont., had an exhibit here of fourteen head. In White Prince and 866, sired by White Prince, imported by Messrs. D. Morton & Sons, of Hamilton, Mr. Stewart has a bull of exceedingly rich quality. The winner of the sweepstake in London last year, Annie Laurie, was shown in good trim. Lady Menie, who, we are informed, gave 54 lbs. in one day on pasture, is a cow of Mr. Stewart's own breeding. Other cows worthy of note were Jessie Stewart, a three-year old of fine quality, and Mayflower, that is stated to have given 52 lbs. on pasture. Mr. James McCormack, of Rockton, had a full and good selection from his herd, headed by his stock bull, Campbell 357, now a familiar bull to the Ayrshire show ring. This bull is one of strong type, and comes of rare stock, having been bred at the Agricultural College from Campbell of Drumlanrig. Mr. McCormack was, however, strongest in females, and he succeeded in winning many prizes on them. Messrs. W. M. and J. C. Smith, of Fairfield Plains, were also out in good force. Their herd was headed by their well known stock bull, Rob Roy of Oxford. He is a bull of good strong frame, not best of quality. They did not bring out this year as many as on some former occasions, but the merit was, as usual, high.

Awards.—Ayrshire bull, three years old and upwards—1st, J. Drummond; 2nd, W. M. & J. C. Smith; 3rd, J. McCormack. Ayrshire bull, two years old—1st, T. Guy; 2nd, T. Brown; 3rd, J. Cunningham. Ayrshire bull, one-year-old—1st, T. Guy; 2nd, W. M. & J. C. Smith; 3rd, J. McCormack. Ayrshire bull calf, under one year—1st, J. Drummond; 2nd, W. Stewart, jun.; 3rd, T. Brown. Ayrshire bull, any age (silver medal)—1st, J. Drummond. Ayrshire cow, four years old and upwards—1st, J. Drummond; 2nd, J. McCormack; 3rd, T. Brown. Ayrshire cow, three years old—1st, J. Drummond; 2nd, T. Guy; 3rd, W. Stewart, jun. Ayrshire heifer, two years old—1st, T. Guy; 2nd, W. Stewart, jun.; 3rd, J. Drummond. Ayrshire heifer, one year old—1st, T. Guy; 2nd, J. McCormack; 3rd, J. Drummond. Ayrshire heifer calf, under one year—1st, T. Brown; 2nd, J. Drummond; 3rd, J. McCormack. Ayrshire herd, consisting of 1 bull and 4 females over one-year-old, owned by exhibitor—1st, J. Drummond; 2nd, J. McCormack; 3rd, T. Guy. Ayrshire female, any age, silver medal—J. Drummond.

Judge.—C. M. Winslow, Brandon.

JERSEYS.—Though the total number of Jerseys exhibited may not be increasing each year, yet there is a gradual addition to the number of breeders that come forward with exhibits. Mr. W. A. Reburn, of St. Anne de Bellevue, had an exceedingly large draft of typical Jerseys from his noted herd. Orloff Stoke Pogis, their stock bull, was in excellent fettle. He has a grand barrel, and a soft and rich skin. Near at hand we noted the Victor Hugo cows, Queen of St. Anne's, a very strong cow of beautiful appearance, Queen Bess of St. Anne's, a daughter of Queen, and old John of St. Lambert. We were pleased to renew our acquaintance with this cow, now sixteen years old, but yet a mint of money to her owner. She is wonderfully developed in milking capacity, having no less than five branched tortuous milk veins. She is a cow of noticeable type and rare breeding. Mr. Reburn is at present having in view the establishing of a Jolie family, and certainly the way is clear, as her daughters are turning out to be prime dairy cows in every way. Three of her daughters were in the milk test. Dora of St. Anne's, an inbred Lady Fawn cow, is one of strong type, as is also Lady Bluff of St. Anne's 4th, a cow of beautiful appearance and form. Lorna Doun of St. Anne's, is another good cow, and is as in and in bred pure Victor Hugo. Amongst the bull calves we particularly noticed Prince Hugo of St. Anne's, a rich, strong calf of high breeding, Victor Hugo of St. Anne's, one of the strongest bred Victor Hugo's alive, and Mary's Pogis of St. Anne's, an inbred Victor Hugo's oke Pogis calf of superior Jersey character. The twenty head shown by Mr. Reburn are of such a high quality and rich breeding, that we could not hope to find their superior anywhere. Messrs. George Smith & Son, of Grimsby, Ont., brought from their herd a selection of eleven, headed by the stock bull, Ida's Stoke Pogis. This bull is one of rare merit, being possessed of an exceedingly rich skin and strikingly masculine in character. His merits were acknowledged in a strong class, by the award of first prize. Other exhibitors of Jerseys were Lakehurst Stock Farm, Oakdale Stock Farm, W. Rolph, A. Howard, A. M. Dodge, J. Maughan, and R. Danes.

Awards.—Jersey bull, three years old and upwards—1st, G. Smith & Son; 2nd, W. Rolph; 3rd, W. A. Reburn. Jersey bull, two years old—1st, J. Clark; 2nd, A. McLean Howard, jun. Jersey bull, one-year-old—1st, J. Maughan; 2nd, A. M. Dodge; 3rd, W. A. Reburn. Jersey bull, under one year—1st, A. McLean Howard, jun.; 2nd, A. M. Dodge; 3rd, W. A. Reburn. Jersey bull, any age, silver medal—G. Smith. Jersey cow, four years old and upwards—1st, W. A. Reburn; 2nd, A. M. Dodge; 3rd, A. McLean Howard, jun. Jersey cow, three years old—1st, A. McLean Howard, jun.; 2nd, W. A. Reburn; 3rd, G. Smith & Son. Jersey heifer, two years old—1st, W. A. Reburn; 2nd, W. Rolph; 3rd, G. Smith & Son. Jersey heifer, one-year-old—1st and 2nd, W. A. Reburn; 3rd, W. Rolph. Jersey heifer calf, under one year—1st and 2nd, W. A. Reburn; 3rd, A. M. Dodge. Jersey herd, of 1 bull and 4 females, over one-year-old, owned by exhibitor—1st, W. A. Reburn; 2nd, G. Smith & Son; 3rd, A. McLean Howard, jun. Jersey female, any age, silver medal—W. A. Reburn.

Judge.—William Crozier, Northport, I.L.I., N.Y.

HOLSTEINS.—If the gathering of this breed at the Industrial may be accepted as a criterion of their progress they must be becoming very popular. Messrs. Smith Bros., of Churchville, had a large exhibit of fine animals, including in all fourteen head. Their stock bull, Minks Mercedes Baron, was looking well. He is a vigorous bull of great scale and development. Their cow Marlan 1812 (imp.), one of late introduction to their herd, is a cow of a type that for length, depth, and quality, is seldom equalled. She is a surprisingly large cow, with wonderful development of udder and quarter. In Cornelia Tensen's Mink Mercedes Baron, they have a bull calf of superb quality and nice dairy form, combined with rich breeding. He is out of one of their best cows, and from their stock bull. The cows shown are not unfamiliar to high honors, as they include Cornelia Tensen, Belle of Orchardside II., and Siepke IV. A good selection of calves, bull and heifers, of their own breeding, was a noticeable part of their exhibit. Messrs. A. C. Hallman & Co., of New Dundee, were here with thirteen of their breed, headed by their well known stock bull, Prairie Aggie Prince, a bull of vigorous constitution and dairy temperament. Amongst the most notable of the females shown by Messrs. Hallman, were Dreamy Eyes, an imported cow of excellent milk form, and nicely put together in loon and quarter; Mina Rooker, another strong, serviceable, imported cow, and also a daughter of hers, Mina Rooker II. A very superior trio of heifers were shown by this firm, as may be surmised from the fact that 1st, 2nd and 3rd prizes went to them in the young heifer class. Queen of Waterloo was a beautifully built two-year-old, sired by African Prince, the bull which now stands at the head of the Holstein herd at the Ontario Agricultural College. Aartis Kassie 3rd, a get of their stock bull, is a heifer possessed with beautiful front, strong loon, and nice quarter. She won the sweepstakes for best female of any age. Mr. R. S. Stevenson, of Ancaster, showed seven head, including his stock bull Neitherland Romulus, of Advanced Registry descent. He is a robust bull of nice form. The cows included Johanna Tensen, 72 lbs. of milk per day, on grass, Antje Howter, that gave 12 lbs. of butter in a week when three years old, and Patsy, a cow in the Advanced Registry. Messrs. Felan and Breckin, of Oakville, were also on hand, with a lot of the selected animals of their dairy herd. Their stock bull, Oakville Chief, came out in good form. Their cows were of an excellent stamp for dairy work. The heifers and bull calves shown by this firm were perhaps the strongest feature of their exhibit, most of them being of their own breeding. Mr. A. Kennedy, of Ayr, Ont., was successful beyond measure with the choice collection that he brought here. His stock bull, Woodbine Prince, is a dairy bull of marvellous development, while his breeding is excellent, he being by Tyrant, dam Flora Jane, with a daily record of 75 lbs., this making him a grandson of the noted Netherland Prince. Considering the fact that Mr. Kennedy's herd is small, giving him little scope to choose, it is a high honor, indeed, for him to secure over such other good stock, the coveted herd prize. He was able to put a strong herd in the ring, as the members of it from oldest to youngest were exceedingly rich in dairy qualities.

Awards.—Bull, three years old and upwards—1st, A. Kennedy; 2nd, Smith Bros.; 3rd, Messrs. Hallman. Bull, two years old—2nd, Maple Grove Stock Farm. Bull, one-year-old—1st, Messrs. Hallman; 2nd, Felan & Breckin. Bull calf, under one year—1st, Smith Bros.; 2nd, R. S. Stevenson; 3rd, A. Kennedy. Bull calf, any age—1st, A. Kennedy. Cow, four years old and upwards—1st, Smith Bros.; 2nd, A. Kennedy; 3rd, R. S. Stevenson. Cow, three years old—1st, Smith Bros.; 2nd, J. Woodhall; 3rd, Messrs. Hallman. Heifer, two years old—1st, Messrs. Hallman; 2nd, A. Kennedy; 3rd, Felan & Breckin. Heifer, one-year-old—1st, Felan & Breckin; 2nd and 3rd, Smith Bros. Heifer calf, under one year—1st, 2nd and 3rd, Messrs. Hallman. Herd, of 1 bull and 4 females, over one-year-old, owned by exhibitors—1st, A. Kennedy; 2nd, Smith Bros.; 3rd, R. S. Stevenson. Female, any age—1st, Messrs. Hallman.

GALLOWAYS.—There was no addition to the competitors in this class this year, there being, as customary, only the herds of Mr. Thos. McCrae, of Guelph, and Mr. Wm. Kough, on exhibition. The specimens of this breed which both of these gentlemen bring out each year cannot but do much to impress visitors with their surpassing aptitude to do well under our conditions. Claverhouse, 4254, the stock bull of Mr. Kough, was in good show trim and brought the usual honor to Mr. Kough's herd. Mr. McCrae had a strong lot of typical Galloways rich in the best qualities of that breed. Their young bull, Glencraig, 5028, by their stock bull Stanley II that appeared in our September number, has, by winning first in the two year old class, well begun a record that promises exceedingly well.

Awards.—Bull three years old and upward—1st, W. Kough; 2nd and 3rd, T. McCrae. Bull two years old—1st and 2nd, T. McCrae. Bull one year old—1st, W. Kough; 2nd and 3rd, T. McCrae. Bull calf 1st and 2nd, W. Kough; 3rd, T. McCrae. Bull of any age—1st, Claverhouse, W. Kough. Cow four years old and upward—1st, W. Kough; 2nd and 3rd, T. McCrae. Heifer two years old—1st, W. Kough; 2nd and 3rd, T. McCrae. Heifer one year old—1st, Wm. Kough; 2nd and 3rd, T. McCrae. Heifer calf—1st, 2nd and 3rd, W. Kough. Herd owned by exhibitor—1st, W. Kough; 2nd, T. McCrae. Female any age—1st, W. Kough.

Judges. John Gearie, London, Jas. King, Brampton, John Miller, sr., Brougham.

FAT CATTLE, ANY BREED.—**Judges** J. Colland, Toronto; Ald. Frankland, Toronto.

Awards.—Fat ox or steer, three years old and over—1st, J. Oke; 2nd, W. Snyder & Sons. Fat steer, two year old and under 1st and 2nd, Weir & Weir. Fat steer, one year old and under 1st, J. & W. B. Watt; 2nd, J. Oke; 3rd, A. McTaggart. Fat steer calf, under one year old—1st, T. Ballantyne & Son. Fat cow or heifer, four years old and over—1st, W. Snyder & Son; 2nd, J. Atkinson. Fat heifer, under four years old 1st, J. Oke; 2nd, T. Ballantyne; 3rd, J. Atkinson. Pair fat cattle, of any age, neither of which is entered in other sections—1st, Weir & Weir; 2nd, J. & W. B. Watt; 3rd, J. Oke.

GRADE CATTLE.—**Judges**—J. I. Hobson, Mostborough; Henry Jennings, Victoria Square, John Fothergill, sen., Burlington.

Awards. Grade cow, four years old and upwards—1st, J. Atkinson; 2nd, J. Leask; 3rd, J. Oke. Grade cow, three years old—1st, J. Oke; 2nd, J. Atkinson; 3rd, J. Leask. Grade heifer, two years old 1st and 3rd, J. Leask; 2nd, J. & W. B. Watt. Grade heifers, one year old—1st, J. Oke; 2nd, J. Leask; 3rd, J. Atkinson. Grade heifer calf, under one year 1st and 3rd, J. Morgan & Son; 2nd, J. Oke. Grades, four females, over one year old, the property of the exhibitor and not entered in any other class—1st, J. Leask; 2nd, J. Oke; 3rd, J. Atkinson. Grade female, any age—silver medal, J. Oke.

Heavy Horses.

CLYDESDALES. The Clydesdale class was composed of Imported or Canadian-bred, which were shown together. There is a growing feeling amongst horsemen that it would be well to separate these into classes, and give prizes for animals foaled in Canada, to encourage the breeding of pure-breds here. The matter is one that might very well engage the attention of the directors when preparing the prize list for another year. As it was, the prizes went to imported animals, many of these having been shown in Scotland this year, and some of them specially purchased and brought out to win at this show. Many of the animals shown in the agricultural class had a large amount of Clyde blood, and the improvement noticeable in this class of horses the past few years is very marked. There were 81 entries of Clydes, not all of these were shown, but most of them were on the grounds, and those brought into the ring were creditable to the Canadian importers and breeders. In stallions four years old and upwards there were twelve entries, but only four were brought before the judges. They were four good ones, but from the first the well-known Macneilage (1117), by Macgregor (1487), was clearly the favorite. He was brought out by his owners, Graham Bros., of Clarenont, in splendid bloom, feet and legs in fine shape, nice feather, and altogether looking his very best. He is a good chunky horse with good pasterns, moves well and gracefully at the trot, and shows himself to the best advantage. He won first in this class and also the sweepstakes for best stallion of any age. R. Beith & Co., Bowmanville, were second with Sir Walter (1131), sire Maghie (4259), and third with Paragon (1313), out of Ivanhoe (4527). Both of these horses were in nice bloom, but the former not nearly in his spring form. Both are good horses, with good action and good feet and heavy bone. Mr. T. W. Evans, of Yelverton, showed Royal Salute (6246), a son of the renowned Darnley (222), a nice horse with well shaped legs, but his hoofs were out of condition, and gave him no chance for the place he might otherwise deserve. There was a good big field in the three-year-old class. R. Beith & Co., were first and second with Eastfield Laddie (1129), a son of Old Times (579), and Eastfield Chief (1129), by Prince Lawrence. They were a good pair, nice lays with white points, and moved well. Graham Bros. got third place with a dark horse Gilroy (1304), by Master of Blantyre (2283). He has good flat bone and nicely set pasterns, walks fair and trots well, but is leggy and lanky, and his hoofs are out of shape. These things improved he would be hard to beat. Messrs. John McMillan & Sons, Constance, showed Keirside (1145), by New Hope (3009), dam Keir Peggy (1659). He was the biggest, heaviest looking horse in the class, with heavy bone, and big, good feet. He stands on his legs like a Shire, and did not move as nicely as could be wished. In yearlings, Graham Bros. were first with Second Choice (8244), by Chastlar (4201). T. W. Evans was second, with Rustic Lad (8218), by Knight of Lothian (4489), and John Gilmour, Toronto, third with Auchintoshan. The same owner had first for yearlings in Lord Lovat. In this class Albany, Vol. XIII., by The Regent (5408), owned by Ormsby & Chapman, Springfield-on-the-Credit, was second. There was a good lot of mares and fillies, in some classes not equal to those of last year, but altogether a very good exhibit. Many of the best of those animals in the filly classes of last year have been sold to go to the States, and several of this year's winners are recently imported. Those exhibited by Graham Bros. have but recently landed from Scotland, and it was rumored that several of them had been sold to Mr. Davis, of Toronto. A clear first among the females is the mare Bessie Bell, by Darnley (222), a beautiful dapple bay, with fine legs and pasterns, a trifle light in the bone, but altogether the best specimen of the breed on the ground. She gained for Graham Bros. first premium for best

mare, any age. She has already carried off many prizes in Scotland. For best brood mare and foal, there was a good class. First prize went to Hon. John Dryden, of Brooklin, Ont., for Lady Clare, by Lorne II. (1209), and also first for best foal. She easily won the special sweepstakes for Clydesdale mare and one of her progeny, offered by the Clydesdale Association. David McCloy, of Chiselhurst, showed a very good mare in Lady Clifton, for which he got second place, and D. & R. McGeachy, Coleraine, got third place for Polly McLatchie (339), by Doncaster, a fairly good mare, a better type of a Clyde than her daughter, Mary of Castlemore (618), shown with her as produce for the sweepstakes. Lady Dunmore, a very nice bay with good feet and legs, came first as a three-year-old. She was fourth at the Highland Society Show at Dundee this year. Barr Belle, winner of the Derby at Wigton, Scotland, got same place among the two-year-olds. She is a light bay, very good at the ground, the makings of a big mare. Both these were shown by Graham Bros. Second place in two-year-olds went to R. Beith & Co., for Maria (979), by Master of Blantyre (2283). This was the prize yearling last year. She has grown very big, rather leggy and bare of hair, and her pasterns were hardly as sweet as they looked a year ago. This was a very good class and the third prize was hard to find. It went at last to Edith, by Lord Lynedoch, owned by Graham Bros., a bay, with extra good feet and legs, but very plain in the body. They also got first and second in yearlings, for Lady Muir, by Darnley King (2717), and Sweetheart, by Macgregor (1487). Third prize went to T. W. Evans, for Elsie Ward, by Prince Gallant.

Awards. Stallion, four years and upwards—1st, Macneilage, Graham Bros.; 2nd, Sir Walter (1131), R. Beith & Co.; 3rd, Paragon, R. Beith & Co. Stallion, three years old—1st, Eastfield Laddie, R. Beith & Co.; 2nd, Eastfield Chief, R. Beith & Co.; 3rd, Gilroy (imp.), Graham Bros. Stallion, two years old—1st, Second Choice 8244, Graham Bros.; 2nd, Rustic Lad 8218, T. W. Evans; 3rd, Auchintoshan, J. Gilmour. Yearling colt, entire 1st, Lord Lovat, J. Gilmour; 2nd, Albany, Ormsby & Chapman. Filly, three years old—1st, Lady Dunmore, Graham Bros.; 2nd, Maria 979, R. Beith & Co.; 3rd, Edith, vol. xii., Graham Bros. Stallion, any age—1st, Macneilage, Graham Bros. Yearling filly and gelding—1st, Lady Muir, Graham Bros.; 2nd, Sweetheart, vol. 12, Graham Bros.; 3rd, Elsie Ward, vol. xiii., T. W. Evans. Brood mare with foal of same breed by her side—1st, Lady Clare, John Dryden; 2nd, Lady Clifton, vol. xi., David McCloy; 3rd, Polly McLatchie, D. & R. McGeachy. Best mare, any age—1st, Bessie Bell, Graham Bros. Mare with two of progeny, property of exhibitor—1st, D. & R. McGeachy. Span of geldings or mares—1st, Harriet and Sally, Graham Bros. Best mare any age, and one of her progeny, both property of exhibitor, and both to be recorded in the Clydesdale Stud Book of Canada—1st, Lady Clare, John Dryden. Best imported or Canadian-bred stallion of any age, with five of his progeny, any age or sex—1st, Kenilworth 2187, S. Mackenzie; 2nd, Nelson (341), D. & R. McGeachy.

Judges.—John Hope, Brantford; D. McCrae, Guelph; P. McGregor, Brantford.

SHIRE HORSES.—The show of Shire horses was small and not equal in quality to the Clydes. The total number entered was twenty-seven, and they did not all put in an appearance before the judges. There were no entries in the classes for yearling colts, three year old fillies, nor for span of Shire horses, mares or geldings, only one yearling filly, and in several of the other classes only enough to take the prizes. In the aged class Messrs. S. Hisey & Son, Creemore, got first with King Tom (107). He is a big brown horse, with blaze on face and white on three legs, imported as a foal by John Dunkin, Riverview, he is sired by King Tom (2446), and out of a mare by Hercules (1350). He won the silver medal for the best Shire stallion, any age. The well-known King of the Castle (71) was placed second. He has appeared at many shows in Canada, and has won for his owners, Jas. Guardhouse & Sons, Highfield, a lot of prizes, including that at this Exhibition for the best Shire stallion with five of his progeny. King of the Castle was imported in 1883, by Charles Harrison, York Mills, and is a massive brown horse, by Honest Tom (1111), dam by Honest Tom (3143), and is one of the best known Shire horses in Canada. Third prize went to Chieftain II. (194), a six-year-old horse, bay, with white blaze and near feet white. He was imported in 1883 by his present owners, Messrs. Morris, Stone & Wellington, of Welland. He was bred in Derbyshire by William Riley, of Boulton, sire Champion (457), dam by Waxwork (2306). The same firm got third place in the three-year-old class for Active (152), a brown horse, with white stripe and three white feet. He is by Lincolnshire Lad II. (1365), dam by Honest Tom (1105). They also got first for the two year old stallion Prince Charles (196), bred by themselves after Carbon (3523); first for the yearling filly Queen (65), by their old horse Chieftain II. (194), and for their mare Lancashire Lass (195), they got third in her class—third for her foal Stanley (197), and for her when shown with two of her progeny. She is a bay mare with the usual blaze and three white feet, and is sired by Honest Tom (1105). Messrs. Ormsby & Chapman, Springfield-on-the-Credit, got second place for the three-year-old stallion Leake Walker, a bay with white star and three white legs, bred by James Roberts, Chesterfield, England. He is a thick, chunky horse, sired by Walker (1148). They also got second prize for the

two year old, Leake Edward, a black horse by Carlton Comet (566), and second for the two year old filly, Leake Sally, a bay bred by Alex. Crawford, West Leake, Leicestershire, England, a low blocky filly but rather small in size, with good legs and feet. Matthew Carlyle, Dunbar, got first for the three-year-old horse Cannock Dean (198), a bay, white star on face and white hind feet, bred by Edward Dean, Chester, England, sired by Better Times (2984), he was imported in 1888. J. G. Wardlaw, Downsire, got first for the two year old filly, Emily May, sire King of the Castle (71), out of the mare Hichin Diamond, for which they got second place in the class for brood mares. For her foal by Commodore II. they also got first prize, but when they came to show for mare with two of her produce, while they had the second prize mare and two first prizes to show as produce they were beaten by the third prize mare and with only one first prize in her produce, the yearling filly, Queen (65). The first prize mare Georgia, by Royal George II. (2485), was a good one; she was shown by Green Bros., Innerkip, who won the medal with her for best mare of any age. She was of excellent quality, and of good, strong build.

Awards—English Shire Horses.—Stallion, four years old and upwards—1st, King Tom 107, S. Hisey & Son; 2nd, King of the Castle (3171), J. Gaurdhouse & Son; 3rd, Chieftain II. (5723), Morris, Stone & Wellington. Stallion, three years old—1st, Cannock Dean (198), M. Carlyle; 2nd, Leake Walker, Ormsby & Chapman; 3rd, Active (152), Morris, Stone & Wellington. Stallion, two years old—1st, Prince Charlie (196), Morris, Stone & Wellington; 2nd, Leake Edward, Ormsby & Chapman; 3rd, unnamed, R. Hall. Stallion, any age—1st, King Tom, S. Hisey & Son. Filly, two years old—1st, Emily May, J. G. Wardlaw; 2nd, Leake Sally Ormsby & Chapman. Yearling filly or gelding—1st, Queen (65), Morris, Stone & Wellington. Brood mare with foal by her side—1st, Georgia, vol. x., Green Bros.; 2nd, Hichin Diamond, J. G. Wardlaw; 3rd, Lancashire Lass 195, Morris, Stone & Wellington. Foal of 1890—1st, unnamed, J. G. Wardlaw; 2nd, unnamed, Green Bros.; 3rd, Stanley 197, Morris, Stone & Wellington. Best mare, any age—1st, unnamed, Green Bros. Best stallion of any age, with five of his progeny, any sex or age—1st, King of the Castle (3171), J. Gaurdhouse & Sons.

Judges.—P. Christie, Manchester; Alex. Innes, Clinton.

Heavy Draught Horses, Canadian Bred only.—**Awards.**—Stallion, four years old and upwards—1st, The McGregor, R. C. Gibson; 2nd, Sandy McGregor, J. McFarlane; 3rd, Gold Cup, J. Park. Stallions, three years old 1st, Pride of Dollar, P. Kelly; 2nd, Gen. Scott, S. McKenzie; 3rd, Belford, J. Roach. Stallions, two years old—1st, Argyle, J. Howard; 2nd, Dunboy, J. Cox; 3rd, Success, W. Crawford. Yearling colt, entire 1st, Castlemore, D. & R. McGeachy; 2nd, unnamed, R. McCowan; 3rd, Lochiel 1240, Prouse & Williamson. Heavy draught stallion, any age—1st, Pride of Dollar, P. Kelly. Filly, three years old 1st, Mary of Castlemore, D. & R. McGeachy; 2nd, Jennie 1305, W. J. McDermott. Filly, two years old—1st, Elsie, T. Glendinning; 2nd, Nora, S. Mackenzie; 3rd, Dollie 1096, vol. iv., R. W. Ewers. Yearling filly or gelding 1st, Belle of Reach, R. W. Ewers; 2nd, unnamed, W. Foster; 3rd, Princess Beatrice, Willis Bros. Foal of 1890—1st, Katie R. Davies; 2nd, unnamed, R. McCowan; 3rd, unnamed, J. Guardhouse & Sons. Brood mare, with foal of same breed by side 1st, Blossom 153, J. Cox; 2nd, Bonnie B., H. G. Boag; 3rd, Betty, J. Bone. Mare, with two of progeny—1st, Blossom 153, J. Cox. Span geldings or mares—1st, Jessie and Bonnie, J. Howard; 2nd, Nettie of Castlemore and an unnamed, W. Foster; 3rd, Alger and Captain, Riverside Storage Cartage Co. Mare of any age—1st, Flossie, J. Cox.

Judges.—W. Honey, Mitchell; J. K. Crawford, Guelph; C. Brodie, Bethesda.

Awards—Agricultural Horses.—Stallion, four years and upwards—1st, Ben Bol 1326, C. S. R., J. Boag; 2nd, Black Knight, David H. Taylor; 3rd, Dandie, David Hewson. Stallion, three years old—1st, Dandy Boy, C.S.B. 325, T. & W. Wambold; 2nd, Jimmie Douglas, 273, H. G. Boag; 3rd, unnamed, F. H. Smith. Stallion, two years old—Ardie 1321, Prouse & Williamson; 2nd, Red Ribbon 013, G. Taylor; 3rd, King Huron 677, T. McMichael. Stallion, any age—1st, Young Earl, John Patterson. Yearling colt, entire—1st, Equal Rights, R. Spears; 2nd, Navigator, J. Fothergill; 3rd, St. Bell, G. Jackson. Stallion, any age—1st, Dandy Boy, C.S.B. T. W. Wambold. Filly, three years old—1st, Jess, J. G. Wardlaw; 2nd, Therese 1126, Prouse & Williamson. Filly, three years old—1st, Maud, Amos Agar; J. W. Linstead & Son took 2nd and 3rd, with unnamed entries. Yearling filly or gelding—1st, Blanche, W. Milliken; 2nd, Minnie, A. Lahmar; 3rd, Jessy, J. J. Balsdon. Brood mare with foal by her side—1st, Lady, J. Boag; 2nd, Nellie, T. Macklem; 3rd, Jen, W. Milliken. Foal of 1890—1st, J. White; 2nd, A. Agar; 3rd, T. Lansdale. Best mare any age—1st, Jess, J. G. Wardlaw.

Awards—Horses for General Purpose.—Stallion, four years old and upwards—1st, Young Earl, J. Patterson; 2nd, Pride of Simcoe, W. H. Clemenger; 3rd, Prince of Orange, W. H. Hutchinson. Yearling colt, entire—1st, Dick Turban, R. Whittaker; 2nd, Welcome, J. Park. Stallion, any age—1st, Young Earl, J. Patterson. Filly, three years old—1st, J. Clark; 2nd, J. Clark. Filly, two years old—1st, F. Wanzer. Yearling filly or gelding 1st and 3rd, W. G. McDermott; 2nd, A. Lahmar. Brood mare, with foal by her side—1st, J. Brooks; 2nd, Prouse & Williamson; 3rd, F. Wanzer. Foal of 1890—1st, Prouse & Williamson; 2nd, J. Clark; 3rd, F. Wanzer. Matched team—1st, Harrison & Sons; 2nd, W. Ewing. Best mare any age—1st, W. J. McDermott.

SUFFOLK PENCILES.—There was a good exhibit of these horses this year; not large in numbers compared with some other classes, but the quality was there. The display of stock of this breed is yearly growing larger. The continuance of exhibiting such good individuals will do much to dispel the misapprehensions of many in regard to their characteristics. The aged stallion class was larger by far than it has ever been

before, there being four entries. The competition for first place lay between Bunker Boy, 1912, owned by J. A. Melvin, of Winchester Ont., and Enterprise, 1914, owned by Jos. Beck, of Thorndale. The former is a beautiful golden chestnut stallion that stands well on legs of excellent quality. He is more rangy in type than Enterprise. The latter is a stallion of good draught type close to the ground, deep bodied and clean limbed. Messrs. A. & J. W. Salmon, of Thorndale, Ont., showed their Invader, 1439, in this class. He is a good type of Suffolk of heavier bone, than any of the others. J. Storey, of Winchester, Ont., showed an excellent two-year old, Capt. Williams 1994. He has matured into a stout and serviceable stallion since last year, when he was shown at the Industrial as a colt by his importers, Messrs. Irving and Christie, of West Winchester. This stallion is one of extra growth, strongly muscled with bone of the best of character. Messrs. Salmon had here a nice yearling colt, Vivacity, 2027, sired by Invader, 1439, their stallion. A new exhibitor to enter the lists are Messrs. Mossom, Boyd & Co., of Boyceygeon. They were exceedingly strong in good females. Their mare Maud, the most noticeable, perhaps, of their collection, is a mare of good build and quality. Thomas Irving, of West Winchester, this year only exhibited a brood mare with foal by her side, and succeeded in securing first with her, and second on the foal in its class. Messrs. Snider & Edmonston, of Brantford, contented themselves this year with showing a very superior pair of matched mares in harness. They were awarded first on them. The exhibit of Suffolks on the whole was very encouraging for that breed.

Awards.—Stallion three years old and upwards—1st, Enterprise, 1914, Joseph Beck; 2nd, Bunker's Boy 1912, J. A. Melvin; 3rd, Invader, 1439, Messrs. Salmon. Stallion two years old—1st, Capt. Williams, J. Storey. Yearling colt—1st, Vivacity, 2027, Messrs. Salmon. Stallion any age—1st, Enterprise, J. Beck. Mare three years old and upwards—1st, Blossom, Mossom & Boyd. Filly two years old—1st and 2nd, Maud, Primrose, Mossom Boyd & Co. Yearling filly or gelding—1st, Princess, Mossom & Boyd. Brood mare with foal by her side—1st, Baroness, 1129, T. Irving; 2nd, Vanity, 1930, J. Beck. Foal of 18 months—1st, Duke of Thorndale, J. Beck; 2nd, Fashion, T. Irving. Matched team in harness—1st, Princess, 2209, and Victoria, 2277, Snider & Edmonston. Mare any age—1st, Mossom, Boyd & Co.

Light Horses.

The most striking feature of the exhibit of live stock as a whole was the number of entries in the several classes of light horses, and perhaps not a little less striking was the wonderful variation of types that came together in competition for class awards. In the carriage class, and particularly in the sections for single drivers and matched teams, was the different styles of horses most marked, and also in the whole roadster class the same absence of any uniformity of type was a very noticeable feature of the exhibit. The quality of the whole was undoubtedly of a rare order, but it may be said that our carriage horses and roadsters are not so finished and symmetrical in contour, or as stylish in movement, as one might desire to see them. This, no doubt, in many cases, is not so much the fault of the horses as it is of those who have the charge of handling them. More attention to this matter on the part of those showing their horses would work a wonderful difference in the judgments.

THOROUGHBREDS.—The thoroughbreds this year turned out in good numbers, and in some classes, the aged stallion and filly sections, the competition was strong. There were a number of excellent stock stallions four years old and upwards shown, and it was no small honor for Buffalo, owned by J. G. Seagram, of Waterloo, to secure the highest honors. This stallion is by Billet from Belle Palmer, and he is in appearance a horse of excellent type, such as many districts are in need of to quicken the life and ambition of the progeny of cold-blooded mares. There was a large collection of fillies entered, and in all the sections the places secured were well won. There is yet abundant room for the thoroughbred in Canada, and it is to be hoped for the sake of our horse industry, that the numbers appearing at the Industrial may from year to year markedly increase.

Awards.—Stallions, four years old and upwards—1st, Buffalo, owned by J. G. Seagram; 2nd, Gascon (imp.), Jos. Noble & Co.; 3rd, Meteor, James Mannell. Stallion, two years old—1st, Faugh-a-Ballagh, John Gilkinson; 2nd, Gladstone, John Dymont. Yearling colt, entire—1st, King John, John Dymont; 2nd, Early Bird, Wm. Hendrie; 3rd, King Bob. Stallion, any age, special prize—Buffalo, J. G. Seagram. Mare or gelding, four years old and upwards—1st, Black Bird, Wm. Hendrie; 2nd, Aunt Alice, Wm. Hendrie; 3rd, Rosabella, John Dymont. Three-year-old fillies—1st, Peacock, W. Hendrie; 2nd, Alice D. J. Dymont. Two-year-old filly—1st, Annie D., John Dymont; 2nd, Arrow, Wm. Hendrie; 3rd, V. G. A., John Dymont. Yearling filly or gelding—1st, Cottonade, Wm. Hendrie; 2nd, Cosbine, John Dymont; 3rd, Fanny Kirk, John Dymont. Brood mare with foal by her side—1st, Bonnie Bird, Wm. Hendrie; 2nd, Lucy Lightfoot, John Dymont; 3rd, Maggie May, John Dymont. Best mare, any age—Bonnie Bird, Wm. Hendrie.

HACKNEYS.—It is a pleasure for us to note that Hackney representatives are becoming more numerous each year. This time the judges had six stallions to place. Nobleman, a beautiful Hackney, that was exhibited last year by his importer, Mr.

Thomas Irving, was here again under the ownership of Mr. Hastings. Though not in quite as good showing trim as last year, this stallion was in excellent bloom. His chief competitor was Norfolk Hero, a stallion of good style and quality, imported by Messrs. R. Beith & Co., of Bowmanville, and now owned by Asa Choate. Mr. John Belway, in Brilliant, had a thick, smooth four-year-old. Another of Mr. Irving's importation, Bounding Willow, shown by Matthew Carlyle, was a stallion of good substance. Messrs. Ormsby & Chapman's Little Wonder was also on exhibition. None of the collection had, however, the action and typical Hackney qualities of Nobleman, and considerable surprise was evinced when Norfolk Hero was placed first.

Awards.—Best imported Hackney stallion, any age—1st, Norfolk Hero, Asa Choate; 2nd, Young Nobleman, Mr. Hastings; 3rd, Bounding Willow 1997, Matthew Carlyle.

Judges.—Robert Graham, Claremont, and John Holderness, Toronto.

ROADSTERS.—So numerous were the entries in the various classes here, that it is practically impossible to go into details as to the merits of the horses exhibited, so that we must content ourselves with the statement that the roadsters this year were an exceedingly good class in comparison with former years. Every award was hotly contested, and especially is this true of all the stallion classes. Besides the old timers of last year, such as Forest Mambrino, Tristram, and Dr. Layton, there was a surprising exhibit of new horses. The standard of our roadster horses, as established at the Industrial, is certainly becoming higher each year, so that the highest prize winners of former years would now find themselves without even a place. The standard-bred strains are being patronized more and more, and as a result our roadsters are moving along the line of better breeding. The stallion classes not only show an increased number of registered horses, but a great many of the colts and fillies are by standard-bred sires.

Awards.—Stallion, four-years-old and upwards, not less than 15½ hands—1st, Forest Mambrino, 5865, Oakdale Stock Farm; 2nd, Tristram, 5581, J. M. Whitlaw; 3rd, Belmont Star, Wm. L. Taylor. Stallion 3 years old—1st, Honest Wilkes, H. Charlesworth; 2nd, Narvelle, F. Kennedy; 3rd, Col. Stanton, J. Quinn. Stallion 2 years old—1st, Ohio Wilkes, W. G. Murray; 2nd, St. Jerome, W. McClure; 3rd, Little Frank, Ward Bro. Yearling colt, entire—1st, King Rose, George Arnold; 2nd, unnamed, Wesley Cline; 3rd, unnamed, Thomas Lapslie. Three-year-old gelding—1st, Simon G. A. W. Green; 2nd, Onondaga Chief, J. B. McNally & Co. Three-year-old filly—1st, Nellie Belmont, W. H. Speers; 2nd, Bessie L. Jac. Lawrie, jr.; 3rd, Alice K. R. M. Wilson. Two-year-old gelding—1st, unnamed, Cloughion Bros.; 2nd, Barney, J. H. Austin; 3rd, Wildwood, W. R. Glasby. Two-year-old filly—1st, Whitefoot, J. O'Neil; 2nd, Wildflower, M. S. Wellington; 3rd, Rose, R. Davis. Yearling filly or gelding—1st, Perfection, P. M. Wilson; 2nd, Maud Belle, Isaac Wardell; 3rd, Polly B., Wm. Smith. Brood Mare with foal—1st, Laurie Smith, A. R. Johnston & Co.; 2nd, Bay Mare, J. Kirkland; 3rd, Jenny, S. Shunk. Foal of 18 months—1st, Frank Ellis 7207, J. Kirkland; 2nd, King Forest, C. A. Kelly; 3rd, Bunker Wilkes, H. G. Charlesworth. Pair of Matched Horses—1st, Nettie and Stella, J. Clark; 2nd, Speil and Floss, R. and S. Porter; 3rd, Maud and Belle, I. Anderson. Single Horse—1st, Idle Brock, R. Davies; 2nd, unnamed, Moorehouse & Pepper; 3rd, Rydyk, R. M. Wilson. Best stallion any age with five of his progeny of any age or sex, (Judges, Elt Gregory, Dalhousie, Dr. Aikens, Burnhamthorpe)—1st, Belmont Star, Wm. Taylor; 2nd, Forest Mambrino, Oakdale Stock Farm.

Judges.—Dr. Aikens, Burnhamthorpe, Dr. O. Graham, Port Perry, John Reilly, St. Catharines.

CARRIAGE HORSES.—The exhibit of carriage horses grows larger each year. A rare collection of carriage stallions came together in the aged class. No less than twenty stallions faced the judges. They quickly winnowed these with the result that the short feet contained Prince Alexander, a Cleveland Bay, owned by Marsh & Sons; Wild Harry, a Yorkshire Coach, owned by S. Hisey; Shining Light, a Cleveland Bay, owned by A. C. McMillan; Frank, owned by John Bone; and Candidate, a coach stallion, owned by Fred. Row. The judges took considerable time to make their awards, and well they might, for it was a superior class of stallions that they had to pass an opinion upon. Considerable dissatisfaction was expressed in some quarters in respect to the judgment in placing Wild Harry first over Prince Alexander and Shining Light, and it may be said that in such a class the order might have been reversed without the judges at all risking their reputation. Wild Harry had quality, but he had not the bone and legs of either of those that came second and third. Prince Alexander is a strong, stout-bodied Cleveland, with a beautiful head and clean cut lineaments. Of the matched carriage teams, not less than 16½ hands, four teams were shown. Messrs. B. G. Tisdale & Co., won first on a stylish and rangy pair of bays, Messrs. Grand & Co. had a strong second in a pair of good coaching stamp. No less than nine pairs of matched carriage horses, under 16½, not less than 15½ hands, came before the judges. The first selections included two superior teams from the stables of W. D. Grand & Co., and Mr. Thos. Brownridge's neat pair of thick bays. The first went to Messrs. Grand & Co., on a stylish pair of bays of excellent quality and first-class front action. Again nine teams fronted the judges in response to the call for pairs

of light carriage mares or geldings not less than 15½ and not more than 15½ hands. There was strong competition here. Messrs. Grand had two teams of excellent type entered. First went to E. W. Cox on a pair of nice mares of the Coach type. In the single classes the competition was not quite so strong, there being but seven entries in the largest section, namely, that for single carriage horses. J. H. Austin had a good type of horse in Dan, a son of Hyder Ali. Dr. Grenside, of Guelph, exhibited in this class an excellent mever and stylish horse got by Rydyk.

Awards.—Stallion, four years and upwards, 16½ hands and over—1st, Wild Harry, 1265, S. Hisey; 2nd, Prince Alexander (imp.), A. Marsh; 3rd, Shining Light, 1178, (imp.), A. C. McMillan. Stallion, three-years-old—1st, Young Peacock, J. Cunningham; 2nd, Excel, D. Campbell; 3rd, Drap d'Or, jr., W. H. Walker. Stallion, two-years-old—1st, unnamed, Wesley Cline; 2nd, Howson, R. M. Wilson; 3rd, Rydyk III., C. Newhouse. Yearling colt—1st, Billy, W. Tredway; 2nd, unnamed, W. McClure; 3rd, Frank, G. Fuller. Pair matched carriage horses (mares or geldings) not less than 16½ hands—1st, Colonel and Major, B. G. Tisdale; 2nd, unnamed, Thos. Brownridge; 3rd, unnamed, W. D. Grand & Co. Pair matched carriage horses, not less than 15½ hands and under 16½ hands—1st, W. D. Grand & Co.; 2nd, W. D. Grand & Co.; 3rd, Thos. Brownridge. Pair of matched light carriage horses, (hackney or light steppers, mares or geldings) not less than 15½ and not more than 15½ hands—1st, unnamed, E. W. Cox; 2nd, unnamed, Moorehouse & Pepper; 3rd, Punch and Baron Rothschild, T. Dixon. Gelding three-years-old—1st, unnamed, J. Smith; 2nd, unnamed, J. F. Quinn. Filly three-years-old—1st, Nettie, C. Newhouse; 2nd, Hattie Bell, W. C. Brown; 3rd, Nelly, J. B. McNally. Gelding two-year-old—1st, Billy Stanton, R. M. Wilson; 2nd, unnamed, I. Irving. Filly two-year-old—1st, Dot, G. Fuller; 2nd, unnamed, G. Cheyne; 3rd, Dollie, J. Cunningham. Yearling filly—1st and 2nd, Lucy and May, A. A. Gage; 2nd, Fiosie, Smith & Pratt. Brood mare 16 hands and over with foal by her side—1st, unnamed, J. Noble; 2nd, Dolly, T. & B. Howden; 3rd, Mambrino Maid, S. Shunk. Foal of 18 months—1st, Prince, J. B. McNally; 2nd, Mambrino, S. Shunk; 3rd, unnamed, J. Clark. Single carriage horse in harness, 15½ to 16½ hands—1st, unnamed, W. McClure; 2nd, unnamed, J. Quinn; 3rd, unnamed, F. C. Grenside. Single carriage horse in harness not less than 16½ hands—1st, Frank Stanton, R. M. Wilson; 2nd, unnamed, F. C. Grenside; 3rd, Dexter, T. McQuay. Best stallion any age with five of his progeny any age or sex—(Judges, A. M. Campbell, Bayfield; Frank Smith, Sarnia) 1st, Ryshawk, Orr & Harrison.

Judges of Carriage Horses.—T. C. Patteson, Toronto; R. Pringle, Coloung; John Leys, Toronto.

Sheep.

The exhibit of sheep this year, in nearly all the classes, has never been surpassed. This statement applies to numbers, and to the quality of the animals shown. It would, indeed, have done credit to any country.

COTSWOLDS.—The exhibit of Cotswolds was not very large, but the quality was excellent. The entries made by J. G. Snell & Bro. were the most numerous, and the larger portion of the prizes went to them. H. Crawford & Sons, J. W. Boynton, and D. G. Hanmer & Sons, also came in for a share.

Awards.—Cotswold ram, two shears and over—1st, J. G. Snell & Bro.; 2nd, H. Crawford & Sons; 3rd, J. W. Boynton. Shearling ram—1st, 2nd, and 3rd, J. G. Snell & Bro. Ram lamb—1st, 2nd, and 3rd, J. G. Snell & Bro. Two ewes two shears and over—1st and 2nd, J. G. Snell & Bro.; 3rd, D. G. Hanmer & Sons. Two shearling ewes—1st and 2nd, J. G. Snell & Bro.; 3rd, H. Crawford & Sons. Two ewe lambs—1st and 2nd, J. G. Snell & Bro.; 3rd, H. Crawford & Sons. Pen of Cotswolds, one ram, four ewes, and two ewe lambs—1st and 2nd, J. G. Snell & Bro.; 3rd, H. Crawford & Sons.

Judges.—A. Johnson, Greenwood; Thomas Colby, Castleberg; John Thompson, Uxbridge.

LEICESTERS.—The exhibit of Leicesters was larger than usual. The competing lots were owned by J. Kelly, jr., Shakespeare; Mrs. E. A. Somers, St. Marys; W. Whitelaw, Guelph; E. Gaunt & Sons, St. Helens; J. Wood & Son, Freeman; and A. Easton, Appleby. A most encouraging feature of this exhibit was the large proportion of home-bred animals shown. Mr. Kelly's aged ram was simply wonderful, as were also his aged ewes. The larger number of the prizes went to Mr. Kelly, who won 1st and 2nd for best pen. Mr. Whitelaw came next to Mr. Kelly, with an excellent exhibit. Mrs. E. A. Somers and E. Gaunt & Sons also captured some of the prizes.

Awards.—Leicester ram, two shears and over—1st and 2nd, J. Kelly, jr.; 3rd, W. Whitelaw. Shearling ram—1st, J. Kelly, jr.; 2nd, W. Whitelaw; 3rd, E. Gaunt & Sons. Ram lamb—1st and 2nd, J. Kelly, jr.; 3rd, Eliz. A. Somers. Two ewes, two shears and over—1st and 2nd, J. Kelly, jr.; 3rd, W. Whitelaw. Two shearling ewes—1st, J. Kelly, jr.; 2nd, W. Whitelaw; 3rd, Eliz. A. Somers. Two ewe lambs—1st and 2nd, J. Kelly, jr.; 3rd, E. Gaunt & Sons. Pen of Leicesters—1st and 2nd, J. Kelly, jr.; 3rd, W. Whitelaw.

Judges.—J. C. Snell, Edmonton; Andrew Telfer, Paric; Alexander Jeffrey, Whitby.

LINCOLNS.—This handsome breed of long-wools was well represented, R. Shaw, of Glandorf Station, and A. Easton, of Appleby, being added to the list of exhibitors of former years. Wm. Oliver, of Avonbank, led off with an exhibit of very fine quality. He won 1st and 3rd prizes for best pen, and Wm. Walker, of Hilderton, came second. Some prizes fell to each of the other exhibitors. We would like to see a still further extension of the breeding of this heavy-bodied class of sheep, which are, at the same time, so well-covered with wool.

Awards.—Ram, two shears and over—1st, W. Oliver; 2nd, W. Walker, 3rd, R. Shaw. Shearling ram—1st, W. Oliver, 2nd, W. Walker, 3rd, A. Easton. Ram lamb—1st and 2nd, W. Oliver; 2nd, W. Walker. Two ewes, two shears and over—1st, W. Oliver; 2nd, J. Wood & Sons; 3rd, W. Walker. Two shearing ewes—1st and 2nd, W. Oliver; 3rd, W. Walker. Two ewe lambs—1st, W. Walker; 2nd and 3rd, W. Oliver. Pen of Lincoln, one ram, four ewes, and three ewe lambs—1st and 3rd, W. Oliver; 2nd, W. Walker.

Judges.—J. C. Snell, Edmonton. Andrew Telfer, Paris. Alexander Jeffrey, Whitty.

SHROPSHIRE.—The exhibit of Shropshires never stood higher, either in regard to numbers or quality. Many animals of great excellence, imported and home-bred, entered the competing lists. The list of exhibitors includes John Campbell, Woodville; J. Miller & Son, Brougham; W. H. Beattie, Wilton Grove; J. & J. Smith, Brantford; R. Gibson, Delaware; W. G. Pettit, Freeman, R. Davies, Toronto, D. G. Hanmer & Sons, Mount Vernon, and L. Skinner, Tyrone. Nearly every class in Shropshires were hotly contested, and so nearly balanced were the merits of many of the animals that, had the judges given the awards differently in some instances, they would not have laid themselves open to any charge of incompetency. Many of the animals left out altogether would have done honor to any showing. John Campbell, jr., of Woodville, came 1st and 3rd for the best pen of Shropshires, and also won the prize of the American Shropshire Society for the best flock of registered Shropshires. J. Miller & Sons won a good many important prizes, as did also W. H. Beattie, including the second prize for the best pen. The prize for the best flock of five lambs, bred by the exhibitor, went to J. J. Smith, along with other prizes. Richard Gibson and D. G. Hanmer & Sons also came in for a share of the prizes.

Awards.—Ram, two shears and over—1st, J. Miller & Sons; 2nd, J. Campbell, jr.; 3rd, Hanmer & Sons. Shearling ram—1st, W. H. Beattie; 2nd, J. Campbell, jr.; 3rd, Miller & Sons. Ram lamb—1st, J. Miller & Sons; 2nd, J. Campbell, jr.; 3rd, J. & J. Smith. Two ewes, two shears and over—1st and 2nd, J. Campbell, jr.; 3rd, W. H. Beattie. Two shearing ewes—1st and 2nd, J. Miller & Sons; 3rd, J. Campbell, jr. Two ewe lambs—1st, J. & J. Smith; 2nd, J. Campbell, jr.; 3rd, W. H. Beattie. Pen of Shropshires, one ram, four ewes, and two ewe lambs—1st and 3rd, J. Campbell, jr.; 2nd, W. H. Beattie. Special prize—Best flock of registered Shropshire sheep—1st, J. Campbell, jr.; 2nd, W. H. Beattie. Best flock of 5 lambs, bred and owned by exhibitor—1st, J. and J. Smith. Judges.—Same as those for the Oxford.

OXFORD DOWNS.—With no class of sheep is there greater evidence of growing popularity than with the Oxford Downs. The exhibit was more than excellent. While Peter Arkell, Teeswater, the veteran exhibitor of Oxford Downs, held his own very well, James Tolton, Walkerton, came to the front, and J. Harcourt & Sons, St. Anne, also did honor to the exhibit. Smith Evans, Gourcock, was also a powerful contestant. All of these exhibitors were prize winners. Mr. Tolton's shearing ram would be hard indeed to surpass, and his shearing ewes would be hard to equal. His importation throughout does honor to the judgment of Mr. Tolton, jr., who selected it. All of the parties named won prizes, including firsts. The pen prize was captured by James Tolton, and the gold medal offered by the American Oxford Down Society, by Peter Arkell.

Awards.—Ram, two shears and over—1st, Peter Arkell; 2nd, Smith Evans; 3rd, J. T. Harcourt & Sons. Shearling ram—1st, James Tolton; 2nd, J. T. Harcourt & Sons; 3rd, Smith Evans. Ram lamb—1st and 2nd, James Tolton; 3rd, Smith Evans. Two ewes, two shears and over—1st and 3rd, James Tolton; 2nd, Smith Evans. Two shearing ewes—1st and 3rd, James Tolton; 2nd, Peter Arkell. Two ewe lambs—1st, J. T. Harcourt & Sons; 2nd and 3rd, James Tolton. Pen of Oxford Downs, one ram, four ewes, and two ewe lambs—1st, James Tolton; 2nd, Peter Arkell; 3rd, Smith Evans. Special—Best flock of Oxford Downs, one ram, two ewes 2 years old or over, two ewes over 1 year old and under 2 years, and two ewe lambs—Gold medal, Peter Arkell.

Judges.—W. J. Garlock, Howell, Mich.; Professor Shaw, Guelph; Walter Tucker, Toronto.

HAMPSHIRE DOWNS.—No animals of this breed were shown, nor indeed does there appear to be any of them in the country. This is all the more remarkable when we consider their great popularity as a mutton sheep in England.

SOUTH DOWNS.—The principal exhibitors of Southdowns were John Jackson & Sons, Abingdon; A. Telfer & Sons, Paris; R. Shaw, Glanford; and George Baker, Simcoe. J. Jackson & Sons, who captured all the prizes offered for this breed at Detroit, including two silver medals and a silver cup, won all the firsts except one. Several prizes, however, were captured by the other breeders. With such a list of achievements thus early in the show-ring season, further comment on the matchless exhibit of Messrs. Jackson would be superfluous.

Awards.—Ram, two shears and over—1st, J. Jackson & Sons; 2nd, A. Telfer & Sons; 3rd, R. Shaw. Shearling ram—1st and 3rd, J. Jackson & Sons; 2nd, G. Baker. Ram lamb—1st and 2nd, A. Telfer & Sons; 3rd, J. Jackson & Sons. Five ewes, two shears and over—1st, J. Jackson & Sons; 2nd, R. Shaw; 3rd, A. Telfer & Sons. Two shearing ewes—1st and 2nd, J. Jackson & Sons; 3rd, G. Baker. Two ewe lambs—1st and 2nd, J. Jackson & Sons; 3rd, A. Telfer & Sons. Pen of Southdowns, one ram, four ewes, and two ewe lambs—1st and 2nd, J. Jackson & Sons; 3rd, A. Telfer & Sons.

Judges.—James Smith, Mount Vernon; John Wilson, Green River; T. A. Douglas, Galt.

MERINOS.—The Merinos were out in good force. The exhibitors were Rock Bailey, Union, W. M. & J. C. Smith, Fairfield Plains; Robert Shaw, Glanford; W. G. Baldwin, Colchester. Rock Bailey won several firsts, including the pen prize. W. M. & J. C. Smith were also successful winners, carrying 2nd and 3rd on the pens. W. G. Baldwin was 1st and 2nd on shearing rams, and some prizes also fell to Mr. Shaw.

Awards.—Ram, two shears and over—1st, R. Bailey; 2nd, Messrs. Smith; 3rd, W. G. Baldwin. Shearling ram—1st and 2nd, W. G. Baldwin; 3rd, R. Bailey. Ram lamb—1st and 3rd, Messrs. Smith; 2nd, R. Bailey. Two ewes, two shears and over—1st, Messrs. Smith; 2nd, R. Bailey; 3rd, R. Shaw. Two shearing ewes—1st and 3rd, R. Bailey; 2nd, Messrs. Smith. Two ewe lambs—1st and 2nd, Messrs. Smith; 3rd, R. Bailey. Pen of Merinos—1st, R. Bailey; 2nd and 3rd, Messrs. Smith.

DORSET HORNED SHEEP.—Messrs. Tazewell & Hector, of Port Credit, and Wm. Rolph, of Markham, were the two exhibitors of this breed. The larger share of the prizes went to the Messrs. Tazewell & Hector. These gentlemen say they succeed in getting these sheep to produce two crops of lambs a year. They are a hardy and useful breed, and will certainly grow in favor with our farmers.

Awards.—Ram, two shears and over—1st, Tazewell and Hector; 2nd, W. Rolph. Shearling ram—1st, W. Rolph. Ram lamb—1st, Tazewell & Hector; 2nd and 3rd, W. Rolph. Two ewes—1st and 2nd, Tazewell & Hector; 3rd, W. Rolph. Two shearing ewes—1st, W. Rolph. Two ewe lambs—1st, Tazewell & Hector; 2nd and 3rd, W. Rolph. Pen—1st, Tazewell & Hector; 2nd, W. Rolph.

EXMOORS.—Several animals of this breed were on exhibition, and they drew a large share of attention. They seem to possess useful qualities, and should be more than usually hardy. They were shown by John Raymond, Southampton.

FAT SHEEP.—Two fat wethers, two shears and over, long-wooled breed—1st and 2nd, J. Rutherford. Two fat wethers, under two years, long-wooled breed—1st, Eliz. A. Somers; 2nd, J. Rutherford. Two fat wether, two shears and over, short-wooled breed—1st and 2nd, J. Campbell, jr. Two fat wethers, under two years, short-wooled breed—1st and 2nd, J. Rutherford.

Swine.

The exhibit of swine was much larger than ever before. The increase was most marked in Improved Yorkshires and Chester Whites. On the whole, the quality was good; but there were some pigs on exhibition which would have been better at home. Some breeds, as the Essex, were out in not very large numbers; but those on hand were good.

BERKSHIRES.—The chief exhibitors in Berkshires were J. G. Snell & Bro., Edmonton; George Green, Fairview; S. Coxworth, Claremont; Thomas Teasdale, Concord. J. G. Snell & Bro. and George Green won all the prizes. Mr. Coxworth, however, had a good lot of pigs, but those of the Messrs. Snell Bros. and George Green were of such excellence that it was difficult for pigs that were very good even to get a place. Some of the pigs of the former were simply perfect. Those of Mr. Green, a large proportion of which were home-bred, were also of rare excellence. The Berkshires will not be easily dislodged from the high place they occupy in the public mind so long as such excellent specimens are on hand.

Awards.—Boar, over two years—1st and 2nd, Snell Bros.; 3rd, G. Green. Boar, over one and under two years—1st, G. Green; 2nd and 3rd, Snell Bros. Boar, over six and under twelve months—1st and 2nd, Snell Bros.; 3rd, G. Green. Boar, under six months—1st and 2nd, G. Green; 3rd, Snell Bros. Sow, over two years—1st, Snell Bros.; 2nd and 3rd, G. Green. Sow, over one and under two years—1st and 2nd, Snell Bros.; 3rd, G. Green. Sow, over six and under twelve months—1st and 2nd, Snell Bros.; 3rd, G. Green. Sow, under six months—1st and 2nd, G. Green; 3rd, Snell Bros. Best Improved Berkshire boar and two sows, any age—1st and 2nd, G. Green.

SUFFOLKS.—The Suffolks were represented by selections from the herds of J. Featherstone, Springfield-on-the-Credit; R. Dorsey, Burnhamthorpe; T. George, Putnam; W. H. Reid, Lockton; H. George & Sons, Crampton. R. Dorsey won the pen prize, and was rather the strongest in the prize-ring; but J. Featherstone was well forward, and the other exhibitors got a share of the prizes.

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

ESSEX.—During this, as in former years, nearly all the animals shown, came from the herd of J. Featherstone. Credit. Some entries were made by James Main, Poynce. Mr. Featherstone captured every prize with the exception of 2nd in the class for sows under one year.

POLAND CHINAS.—The Poland Chinas were not so largely represented as some of the breeds. Judging by the prize-list,

those of Messrs. W. M. & J. C. Smith, Fairfield Plains, stand first. Next in order come those of W. G. Baldwin, Colchester. R. Dorsey, Burnhamthorpe, was also a prize winner.

Awards.—Boar, over two years—1st, W. G. Baldwin; 2nd and 3rd, Messrs. Smith. Boar, over one and under two years—1st and 3rd, Messrs. Smith; 2nd, W. G. Baldwin. Boar, over six and under twelve months—1st and 2nd, Messrs. Smith; 3rd, W. G. Baldwin. Boar, under six months—1st, W. G. Baldwin; 2nd and 3rd, Messrs. Smith. Sow, over two years—1st Messrs. Smith; 2nd and 3rd, R. Dorsey. Sow, over one and under two years—1st and 3rd, Messrs. Smith; 2nd, D. DeCourcy. Sow, over six and under twelve months—1st, H. George & Sons; 2nd and 3rd, Messrs. Smith. Sow, under six months—1st and 3rd, Messrs. Smith; 2nd, R. Dorsey. Best improved Poland China boar and two sows of any age—1st and 2nd, Messrs. Smith.

IMPROVED YORKSHIRES.—This breed was out in strong array. The list of contestants includes the names of E. M. Jarvis, Clarkson; Ormsby & Chapman, Springfield-on-the-Credit; J. Featherstone, Springfield-on-the-Credit; R. Dorsey, Burnhamthorpe. The sweepstakes went to J. Featherstone; the other exhibitors also dividing the prizes, each of them winning a number. This breed has made rapid progress during recent years, but unless more care is exercised in bringing out only choice selections to the shows, its progress will be interfered with.

Awards.—Boar, over two years—1st, Ormsby & Chapman. Boar, over one and under two years—1st, E. M. Jarvis; 2nd, J. Featherstone; 3rd, Ormsby & Chapman. Boar, over six and under twelve months—1st, J. Featherstone; 2nd, E. M. Jarvis; 3rd, Ormsby & Chapman. Boar, under six months—1st, E. M. Jarvis; 2nd and 3rd, R. Dorsey. Sow, over two years—1st, J. Featherstone; 2nd, Ormsby & Chapman; 3rd, E. M. Jarvis. Sow, over one and under two years—1st and 3rd, Ormsby & Chapman; 2nd, E. M. Jarvis. Sow, over six and under twelve months—1st, J. Featherstone; 2nd, Ormsby & Chapman; 3rd, E. M. Jarvis. Sow, under six months—1st, R. Dorsey; 2nd, J. Featherstone; 3rd, E. M. Jarvis. Best improved Yorkshire boar and two sows of any age—1st, J. Featherstone; 2nd, Ormsby & Chapman.

YORKSHIRES, CHESTER WHITES, AND OTHER LARGE BREEDS.—The interested parties here were H. George & Sons, Crampton; D. DeCourcy, Bornholm; J. Featherstone, Credit; R. Dorsey, Burnhamthorpe; A. D. Chisholm, Oakville; and J. Frank & Son, Cedar Grove. Prominent in this large exhibit were the Chester Whites. They are evidently growing in favor. The prizes here were divided, H. George & Sons taking the pen prize, and J. Featherstone coming second.

Awards.—Boar, over two years—1st, H. George & Sons; 2nd, D. DeCourcy; 3rd, E. D. George. Boar, over one and under two years—1st, D. DeCourcy; 2nd, A. D. Chisholm; 3rd, E. D. George. Boar, over six and under twelve months—1st and 2nd, J. Featherstone; 3rd, T. George. Boar, under six months—1st, D. DeCourcy; 2nd, R. Dorsey; 3rd, H. George & Sons. Sow, over two years—1st and 2nd, R. Dorsey; 3rd, J. Featherstone. Sow, over one and under two years—1st, E. D. George; 2nd, J. Frank & Son; 3rd, J. Featherstone. Sow, under six months—1st, D. DeCourcy; 2nd, H. George & Son; 3rd, J. Frank & Son. Best boar and two sows of the same breed at any age—1st, H. George & Sons; 2nd, J. Featherstone.

Poultry.

The poultry show was opened to the public on Monday afternoon, and thousands of visitors crowded in to see the birds. The display was large, and in most classes, creditable. The building and the coops had been renovated, and everything presented a clean and bright appearance, much to the credit of Mr. Daniels, the superintendent, to whom many thanks are due for his willingness to lend an assisting hand. All the leading varieties were well represented, in fact, so well that the judges had no easy task in making the equitable distributions of prizes. In Plymouth Rocks and Leghorns there was very keen competition, and it is a good thing to see such competition in breeds that have so many points of merit to recommend them.

BRAMMAS.—(Light). These made an average showing; old birds in bad moult—1st cock well placed, not large, but nice even bird. Hens made a finer class; 1st one a beauty, large and in good shape. The pullets made a grand showing, the winners being exceedingly fine, though many good birds did not get a place; nothing else in this class of special note. Darks are ahead of the Lights in quality. This variety is certainly coming to the front again; 1st cock in splendid feather, a grand bird; 2nd not far behind; others well forward. Hens, some really good birds. Chicks, 1st cockerel and pullet well advanced and rightly judged; other pullets close.

COCHINS.—Showed up well in all classes. 1st and 2nd cocks might have changed places in the Buffs, and cock was off on back, but had he been in condition would be an easy first. Pullets, 1st and 2nd birds of special note, large and well advanced, beauties.

LANGSHANS.—Were a small class of good quality, cards well placed; 1st cockerel and pullet, very fine, large, well developed; nothing more in this class of special note.

DORKINGS.—Were a big class, old birds in very bad condition with not being through moult. Chicks, a better class; winners well advanced.

HOUDANS.—Were a small class, four pairs, old birds, and seven young pairs. Some of the prizes might have changed places. This was a class that there were some kickers in, and there was slight justification, especially in the case of young birds.

WYANDOTTES.—(Silver-laced). Small class, but quality very good; some excellent birds; 1st cock should have taken 2nd place, 2nd and 3rd hens also could easily have changed places. Nothing of special note here except pullets, 1st and 2nd very fine indeed, for this breed (Goldens), a small showing but advancing in quality. (Whites), 1st pair of old and chicks, of special note, in good feathers and beautiful plumage; cards well placed.

PLYMOUTH ROCKS.—(Barred). This is a heavy class, winners exceedingly fine, cards well placed, 1st cock and hen extra good all around, 1st cockerel, a choice bird, but slightly bad comb, otherwise well up, 2nd cockerel, larger than 1st, bad comb, too much Minoras, lighter in plumage. Pullets were the finest that could be brought together, the 1st one a perfect beauty, well advanced, beautifully barred, rich yellow legs, and in fact hard to cut down; other pullets well up and many choice birds with no place (Whites), the old birds all in bad shape with being in moult, 1st pair of chicks worthy of special note, large and well developed.

LEGHORNS.—(White). 1st cock in every way a splendid bird, 2nd close behind but not in as good feather; 1st hen a beauty all around, 1st cockerel not large but even and good, carriage well placed; 1st and 2nd pullets of extra quality. (Brown), 1st cock and hen very choice, cards all well placed; 1st cockerel and pullet really fine, won an easy first. Rose combs are few in number and in the hands of few breeders, but making progress.

JAVAS.—Were small in number but their quality was excellent. The 1st cock was of special note in good feathers, 2nd close behind but all out of condition with moult; 1st hen a good one; 1st cockerel and pullet choice birds, others not of any note.

SPANISH. In this class there was a goodly number of birds shown of good quality.

TURKEYS.—In the Bronze class there was good competition, there being seven pairs of old and three young pairs shown. Of any other variety there were exhibited three old pair.

GEESSE.—Bremen on Embden numbered four pairs of old birds, while of Toulouse there were shown five pairs of old and three of pairs young. There was only one pair shown of any other variety.

DUCKS. The numbers in this class were: Pekins, 15 pairs; Aylesbury, 9 pair, which shows an improvement; Rouens, 6 pairs; Cayuga 6 pairs.

All that may be called fancy breeds, were well represented. Hamburgs, a big class; Games and Minoras were out in full blaze again, and Bantams were very numerous and choice. The Pigeon house was crowded, and certainly a finer display of birds has never been seen here. There was also an interesting collection of Rabbits, so that the poultry show was a decided success. There was two model poultry houses in competition for the silver medal. J. D. Robertson's won the medal in every respect, and he rightly deserves the honor. Geo. Wilson, Guelph, showed a complete and convenient folding-coop, full of merit and handiness.

Awards.—Langshans, cocks—1st, Mr. McCormack; 2nd, W. McNeil; 3rd, W. McArthur. Hen—1st and 2nd, W. McNeil; 3rd, Mr. McCormack. Cockerel—1st, Mr. Hett; 2nd, Mr. Hett; 3rd, Mr. Eisle. Pullet—1st, Hett; 2nd, Cole; 3rd, W. McNeil.

Houdans, cock—1st and 2nd, Allan Bogue; 3rd, R. E. Bingham. Hen—1st and 2nd, A. Bogue; 3rd, R. E. Bingham. Cockerel—1st, C. Stockwell, 2nd, Allan Bogue; 3rd, W. R. Knight. Pullet—1st, C. Stockwell; 2nd, Allan Bogue; 3rd, W. R. Knight.

Lefsch, cock—1st and 2nd, W. M. and J. C. Smith. Cockerel—1st and 2nd, W. M. and J. C. Smith. Pullet—1st and 2nd, W. M. and J. C. Smith.

Creve Coeur, cock—1st, Richard Oke; 2nd, W. M. and J. C. Smith. Hen—1st and 2nd, R. Oke. Cockerel—1st, R. Oke. Pullet—1st and 2nd, R. Oke.

Wyandottes, black or white cock—1st and 2nd, George G. McCormack; 3rd, W. H. Wallace. Black or white hen—1st and 3rd, G. G. McCormack; 2nd, Mr. Wallace. Silver-laced cock—1st, Elliott and McLeod; 2nd, Mr. Meyer; 3rd, W. C. G. Peter. Silver-laced, hen—1st and 3rd, Mr. Meyer; 2nd, Elliott and McLeod. Golden-laced, cock—1st, Perfection Club; 2nd, G. L. Daniels; 3rd, Mr. Kent. Golden-laced, cock and hen—1st and 3rd, Mr. Daniels; 2nd, P. F. Club. Black or white, cockerel—1st and 3rd, G. G. McCormack; 2nd, W. H. Wallace. Pullet—1st, G. G. McCormack; 2nd, H. H. Wallace; 3rd, J. Foster. Silver-laced, cockerel—1st, Elliott & McLeod; 2nd, L. G. Meyer; 3rd, J. Gray. Pullet—1st and 2nd, L. G. Meyer; 3rd, W. C. G. Peter. Golden-laced, cockerel—1st and 2nd, W. E. Kent. Pullet—1st and 2nd, R. E. Kent.

Plymouth Rocks, cocks—1st, Perfection Fanciers Club; 2nd, J. Graham; 3rd, Elliott & McLeod. Hen—1st, W. McNeil; 2nd, P. F. Club; 3rd, W. and A. Wright. Cockerel—1st, P. F. Club; 2nd, J. Colson. Pullet—1st, E. Bennett; 2nd, J. Colson; 3rd, P. F. Club. White, cock—1st and 2nd, W. H. Wallace; 3rd, P. F. Club. Hen—1st and 3rd, W. H.

Wallace; 2nd, P. F. Club. White, cockerel—1st, T. Hawes; 2nd, W. H. Wallace; 3rd, P. F. Club. Pullet—1st, 2nd and 3rd, P. F. Club.

Dominique, cock—1st, W. McNeil; 2nd, A. J. G. Luxton. Hen—1st, W. McNeil; 2nd, W. R. Wright; 3rd, A. Luxton. Cockerel—1st, W. McNeil; 2nd and 3rd, J. G. Luxton. Pullet—2nd and 3rd, J. G. Luxton.

Dominique, Cockerel—1st, W. McNeil; 2nd and 3rd, A. J. G. Luxton. Pullet—1st, W. McNeil; 2nd and 3rd, A. J. G. Luxton.

Game, black-red, cock—1st, James Main; 2nd, W. B. Barber Co. Hen—1st, E. F. Doty; 2nd, W. Barber Co.; 3rd, Aldrieve & Nichol. Cockerel—1st J. Main; 2nd and 3rd, W. Barber Co. Pullet—1st, J. Main; 2nd and 3rd, W. Barber Co. Brown-red, cock—1st, W. Barber Co.; 2nd, J. V. Radmore. Hen—1st, W. Barber Co.; 2nd, Alice Radmore. Duckwing, cock—1st and 2nd, W. Barber Co.; 3rd, W. Gillan. Hen—1st, W. Barber; 2nd, F. Troth; 3rd, J. Tomalin. Cockerel—1st, 2nd and 3rd, W. Barber Co.; 3rd, F. Troth. Pullet—1st and 2nd, W. Barber Co. Pile, cock—1st, Aldrieve & Nichol; 2nd, H. Sallows; 3rd, W. Gillan. Hen—1st, W. Barber Co.; 2nd, A. G. H. Luxton; 3rd, Mr. Gillan. Cockerel—1st and 2nd, W. Barber Co.; 3rd, A. Luxton. Pullet—1st and 2nd, W. Barber Co.; 3rd, A. Luxton. Any other variety, cock—1st, J. Mills; 2nd, P. F. Club; 3rd, G. J. Daniel. Hen—1st, J. V. Radmore; 2nd, P. F. Club; 3rd, J. Miles. Cockerel—1st, J. Miles; 2nd, D. G. Davies; 3rd, P. F. Club. Pullet—1st, D. G. Davies; 2nd, J. Miles; 3rd, P. F. Club.

Hamburg, black, cock—1st, William McNeil; 2nd, M. Parmenter; 3rd, R. Oke. Hen—1st, W. McNeil; 2nd, C. J. Eisle; 3rd, R. Oke. Cockerel—1st, W. McNeil; 2nd, A. Bogue; 3rd, R. Oke. Pullet—1st, W. McNeil; 2nd, A. Bogue; 3rd, R. Oke. Gold-pencilled, cock—1st, W. McNeil; 2nd, A. Bogue; 3rd, R. Oke. Silver-pencilled, cock—1st, W. McNeil; 2nd, A. Bogue; 3rd, J. Dawson. Hen—1st, William McNeil; 2nd and 3rd, James Dawson. Cockerel—1st, A. Bogue; 2nd, W. McNeil; 3rd, J. Dawson. Pullet—1st, W. McNeil; 2nd, J. Dawson; 3rd, A. Bogue. Golden-spangled, cock—1st, W. McNeil; 2nd, A. Bogue. Hen—1st, A. Bogue; 2nd, W. McNeil. Cockerel—1st, W. McNeil; 2nd or 3rd, Pullet—1st, W. McNeil; 2nd or 3rd, Silver-spangled, cock—1st, W. McNeil; 2nd, A. Bogue; 3rd, R. Oke. Hen—1st, G. Wilson; 2nd, R. Oke; 3rd, A. Bogue. Cockerel—1st, W. McNeil; 2nd, A. Bogue; 3rd, W. S. O'Dell. Pullet—1st, G. Wilson; 2nd, W. McNeil; 3rd, A. Bogue.

Red-caps, cock—1st, R. J. Daniels, 2nd, William Fox; 3rd, J. S. Nevin. Hen—1st and 3rd, G. J. Daniels; 2nd, W. Fox. Cockerel—1st and 2nd, A. J. Daniel; 3rd, J. S. Nevin. Pullet—1st and 2nd, A. J. Daniel; 3rd, J. S. Nevin.

Javas, black, cock—1st, J. E. Meyer; 2nd, James D. Robertson; 3rd, A. J. G. Luxton. Hen—1st, J. D. Robertson; 2nd, J. E. Meyer; 3rd, A. J. G. Luxton. Any other variety, cock—No 1st; 2nd, A. J. G. Luxton. Hen—1st, A. J. G. Luxton. Black, cockerel—1st, J. E. Meyer; 2nd, J. D. Robertson; 3rd, A. Linton. Pullet—1st J. D. Robinson; 2nd, J. E. Meyer; 3rd, Mr. Luxton. Any other variety, cockerel—1st, Mr. Luxton; 2nd or 3rd, Pullet—1st and 2nd, Mr. Luxton.

Leghorns—(white). Cock—1st, Mr. William R. Wright; 2nd, Mr. Rice; 3rd, Mr. Wixson. Hen—1st, Mr. Rice; 2nd and 3rd, Mr. Wixson. Cockerel—1st, Mr. Rice; 2nd, Mr. Hawes; 3rd, Mr. Wright. Pullet—1st and 2nd, Mr. Rice; 3rd, Mr. Hawes. (Brown). Cock—1st, Mr. Rice; 2nd, Power; 3rd, Mr. Cole. Cockerel—1st, Peters; 2nd, A. Luxton. Pullet—1st, A. Luxton; 2nd, Mr. Peters. (Rose comb, brown). Cock—1st, Mr. Kent. Hen—1st, Mr. Peters; 2nd, Cockerel—1st, Mr. Peters; 2nd, Mr. Otter; 3rd, Mr. Patterson. (Rose comb, white). Cock—1st, Mr. Peters. Hen—1st, Mr. Peters; 2nd, Mr. Patterson; 3rd, Mr. Otter. Cockerel—1st, Mr. Peters; 2nd, Mr. Otter; 3rd, Mr. Patterson. Pullet—1st, Mr. Gray; 2nd, Mr. Otter; 3rd, Mr. Peters. (Black). Cock—1st, Mr. Hamilton; 2nd, Mr. Pletsch; 3rd, Mr. Otter. Hen—1st, Mr. Otter; 2nd, W. McNeil; 3rd, Pletsch. Cockerel—1st, Mr. Wixson; 2nd, Mr. Pletsch; 3rd, Mr. Otter. Pullet—1st, W. McNeil; 3rd, Mr. Wixson.

Minoras, black, cock—1st, G. G. McCormack; 2nd, G. Lang; 3rd, W. R. Lewis. Hen—1st, G. Lang; 2nd, G. McCormack. Cockerel—1st, Mr. Cole; 2nd, Mr. Rice; 3rd, G. McCormack. Pullet—1st, Mr. Rice; 2nd and 3rd, G. McCormack. (White). Cock—1st, G. G. McCormack. Hen—1st, G. McCormack; 2nd and 3rd, G. H. Hastings. Cockerel—1st, 2nd and 3rd, J. Grey. Pullet—1st and 2nd, J. Grey; 3rd, G. McCormack.

Cochins, (Buff), cock—1st, G. McCormack; 2nd, Messrs. Wright; 3rd, C. W. Hall. Hen—1st, G. McCormack; 2nd and 3rd, F. C. Hare. Cockerel—1st, W. Wright; 2nd, C. Hall; 3rd, G. McCormack. Pullet—1st and 2nd, C. Hall; 3rd, F. Hare. (Partridge). Cock—1st and 2nd, A. Bogue; 3rd, Messrs. Wright. Hen—1st and 2nd, A. Bogue; 3rd, T. Cockburn. Cockerel—1st, A. Bogue; 2nd, G. McCormack; 3rd, C. Hall. Pullet—1st and 2nd, A. Bogue; 3rd, W. Wright. (White). Cock—1st, W. McNeil; 2nd, A. Bogue; 3rd, C. Hall. Hen—1st, H. Hill; 2nd, W. McNeil; 3rd, C. Hall. Cockerel—1st, W. McNeil; 2nd, A. Bogue; 3rd, C. Hall. Pullet—1st, W. McNeil; 2nd, A. Bogue; 3rd, C. Hall. (Black). Cock—1st, A. Bogue; 2nd, W. McNeil; 3rd, A. Luxton. Hen—1st, W. McNeil; 2nd, A. Bogue; 3rd, A. Luxton. Cockerel—1st, W. McNeil; 2nd, A. Bogue. Pullet—1st, W. McNeil; 2nd, A. Bogue.

Brahmas, (Dark) Cock—1st, E. J. Otter; 2nd, J. Miles. Hen—1st, H. C. Hall; 2nd, F. Miles; 3rd, W. McNeil. Cockerel—1st, H. C. Hall; 2nd and 3rd, J. Miles. (Light). Cock—1st, A. Luxton; 2nd, W. Hodgson; 3rd, J. H. Paton. Hen—1st, G. M. Hett; 2nd, P. F. Club; 3rd, W. C. G. Peter. Cockerel—1st, W. Peters; 2nd and 3rd, A. Luxton. Pullet—1st and 3rd, A. Luxton; 2nd, J. Dake.

Meyer; 2nd, A. Luxton. Javass—J. D. Robertson; 2nd, J. Hobbs. Any other variety—1st, G. J. Daniels; 2nd, G. Mansson. Game and other Bantams—1st, W. McNeil. Largest and best collection, made by one exhibitor in sections 1 to 38 in classes 57 to 60—1st, A. Bogue. Best red game cockerel owned and bred by exhibitor, to be won three times before becoming absolute property of winner—1st, J. Main.

Spanish, cock—1st, Edward F. Doty. Hen—1st and 2nd, E. F. Doty; 3rd, W. Hodgson. Cockerel—1st, F. C. Hare. Pullet—1st, F. C. Hare.

Andalusians, cock—1st, William R. Knight; 2nd, C. S. Stockwell; 3rd, W. H. Dustan. Hen—1st, W. H. Dustan; 2nd, C. Stockwell; 3rd, W. R. Knight. Cockerel—1st, W. H. Dustan; 2nd, W. R. Knight. Pullet—1st, W. H. Dustan; 2nd, W. R. Knight; 3rd, J. Gray.

Polands, White-crested, black, cock—1st, William McNeil; 2nd, A. Bogue. Hen—1st, W. McNeil; 2nd, A. Bogue. White, cock—1st, W. McNeil; 2nd, A. Bogue. Hen—1st, W. McNeil; 2nd, A. Bogue. Silver, cock—1st, W. McNeil; 2nd, A. Bogue. Hen—A. Bogue; 2nd, W. McNeil. Golden, cock—1st, W. McNeil; 2nd, A. Bogue. Hen—W. McNeil; 2nd, A. Bogue. Buff-laced, cock—1st, W. McNeil; 2nd, A. Bogue. Hen—1st and 2nd, W. McNeil.

Dorkings, colored, cockerel—1st, James Wilson; 2nd, 2nd J. L. Corcoran; 3rd, E. H. Hall. Pullet—1st and 2nd, J. L. Corcoran. Silver-grey, cockerel—1st and 2nd, J. L. Corcoran; 3rd, A. Bogue. Pullet—1st, A. Bogue; 2nd, J. L. Corcoran; 3rd, A. Bogue. White, cockerel—1st and 2nd, A. Bogue. Pullet—1st, A. Bogue; 2nd, A. Bogue.

Turkeys, Geese, and Ducks.—Turkeys, bronze, male—1st, Main; 2nd, W. J. Bell; 3rd, J. Main. Female—1st, W. J. Bell; 2nd and 3rd, J. Main. Any other variety, male—1st and 2nd, W. M. and J. C. Smith; 3rd, J. Tomalin. Female—1st and 2nd, W. M. and J. C. Smith; 2nd, J. Tomalin. Geese, Bremen or Embden, male—1st, James Main; 2nd, A. J. Luxton; 3rd, W. M. and J. C. Smith. Female—1st and 2nd, J. Main; 3rd, A. J. G. Luxton. Toulouse, male—1st, W. Hodgson; 2nd, W. M. and J. C. Smith. Female—1st, A. Bogue; 2nd, W. A. Wright; 3rd, W. M. and J. C. Smith. Any other variety, male—1st, W. M. and J. C. Smith. Female—1st, W. M. and J. C. Smith. Ducks, Rouen, male—1st and 2nd, J. Main; 3rd, W. H. Wallace. Female—1st and 2nd, J. Main; 3rd, W. H. Wallace. Aylesbury, female—1st, W. H. Wallace; 2nd and 3rd, A. Bogue. Pekin, male—1st, A. Bogue; 2nd, W. H. Wallace; 3rd, J. Colson. Female—1st, W. H. Wallace; 2nd, A. Bogue; 3rd, W. H. Wallace. Cayuga, male—1st, A. J. G. Luxton; 2nd, W. M. and J. C. Smith; 3rd, A. J. G. Luxton. Female—1st and 3rd, A. J. G. Luxton; 2nd, W. M. and J. C. Smith. Any other variety, male—1st, A. J. G. Luxton; 2nd, W. M. and J. C. Smith. Female—1st, A. J. G. Luxton.

Turkeys, Geese, and Ducks of 1890.—Turkeys, bronze, male—1st, J. Main; 2nd, W. J. Bell; 3rd, J. Tomalin. Female—1st, J. Tomalin; 2nd, W. J. Bell. Any other variety, male—1st, W. M. and J. C. Smith. Female—1st and 2nd, W. M. and J. C. Smith. Geese, Bremen, male—1st, J. Main; 2nd, A. J. G. Luxton; 3rd, W. M. and J. C. Smith. Female—1st, J. Main; 2nd, W. M. and J. C. Smith; 3rd, A. J. L. Luxton. Toulouse, male—1st, A. Bogue; 2nd, A. J. G. Luxton; 3rd, J. Plesch. Female—1st, A. Bogue; 2nd, A. J. G. Luxton; 3rd, J. Plesch. Ducks, Rouen, male—1st and 2nd, J. Main. Female—1st and 2nd, J. Main. Aylesbury, male—1st and 3rd, A. Bogue; 2nd, W. H. Wallace. Female—1st, W. H. Wallace; 2nd and 3rd, A. Bogue. Pekin, male—1st, A. Bogue; 2nd, W. H. Wallace; 3rd, J. Colson. Female—1st, A. Bogue; 2nd, W. H. Wallace; 3rd, J. Colson. Cayuga, male—1st, W. M. and J. C. Smith; 2nd, A. J. G. Luxton. Female—1st, A. J. G. Luxton; 2nd and 3rd, W. M. and J. C. Smith.

Veterinary.

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL.

Clipping Horses.

By DR. GRENSHIE, V.S., Guelph.

The practice of clipping horses is one upon which there is much controversy. Some people condemn it as a most inhumane one. In fact, during the last session of the Dominion House of Commons, an attempt was made to include it in an Act designed for the prevention of cruelty to animals. We purpose discussing this subject and expressing our views upon it, which have been formed from considerable experience of the effects of the practice.

The advantages of clipping are, that it tends to prevent too profuse sweating, and it admits of the coat being rapidly dried after work. The secretion of sweat on exertion is nature's most important means of keeping the temperature of the body normal. After the sweat is formed in the process of its being converted into vapor, it abstracts from the body a large amount of heat. If the sweating is too profuse there is not only too great a drain upon the fluids of the body, but the heat producing sources are unduly taxed. That serious derangement of the horse's system results from too profuse sweating, is clearly evidenced by the rapid loss of condition of spirit and general unthriftiness in animals in which it occurs. The writer has known a great many instances of horses becoming so reduced from this

cause, that they were incapable of performing their usual work; but after clipping would rapidly regain their lost condition, and perform twice as much labor. There is no stronger argument in favor of clipping that can be adduced than this, for if a horse is not kept comfortable he will not maintain his condition. The loss of heat, and too great strain on the fluids of the body are not, in our opinion, the only harm that result from undue sweating in cold weather, but in addition there is a constant sense of discomfort experienced until the coat becomes dry, which is frequently some hours after work; and all this time the unfortunate animal is suffering.

Certainly something can be done by endeavoring to rub the sweating animal dry, but anyone who has attempted this on a horse with a winter coat, knows that it is a Herculean task, and one likely to be very frequently neglected. A clipped horse, if much exerted, sweats even on a very cold day, but when he is brought into the stable he can be thoroughly dried in a few minutes, and have his blankets put on, making him perfectly comfortable, and capable of enjoying his rest and food, and consequently, profiting from them. What a marked difference between the long, thick, wet-coated horse, and the dry, short-coated one, with his warm blankets! It is this latter condition of comfort and thrift, that the so-called "Society for the Prevention of Cruelty to Animals" is trying to do away with. This illustrates how far misdirected zeal may go astray. It may be said, why not blanket the long, wet-coated horse, and keep him warm and comfortable?

It is true he may be kept from becoming chilled by blanketing, but he cannot be thoroughly dried in this way, consequently he is still subjected to the *very relaxing effects* of a wet coat, the injuriousness of which is clearly evidenced by loss of condition. Clipping, however, though most beneficial under some circumstances, is liable to abuse. For instance, the man who clips his horse and does not blanket him warmly, is only receiving a portion of the benefit to be derived from the practice. It cannot be too strongly insisted upon, that the body should be kept *very warm* with blankets, in order to derive the full benefit of clipping. We have heard the absurd excuse made for not blanketing warmly in the stable, that the horse so blanketed is apt to shiver while being hitched up in a cold place. It is forgotten that this is only momentary discomfort when compared to the constant exposure to insufficient warmth in the stable.

We have heard horse owners express disappointment at the condition of their horses, and on inquiry find they grudge the expense of a few dollars for sufficient clothing, only using one light blanket on each horse, when they should have at least two warm ones. Discretion also requires to be used in the choice of subjects for clipping. It should not be done in an indiscriminate and wholesale manner. Horses used for slow work, or those driven fast for only short distances, and that make frequent stops, are seldom benefited by removing the coat. Those used for driving purposes, that only get an occasional trip and don't seem to suffer any loss of condition, it is not so necessary to clip. Some horses, particularly well bred, fine-coated ones, are often not benefited much.

By keeping some horses in good condition, by good feed, regular work and grooming, and by attending to blanketing as soon as the weather gets at all cool, the necessity for clipping may sometimes be avoided. In our opinion, however, in any case in which a horse's work causes him to sweat freely, and it takes him long to dry up after work, it is a most humane and beneficial act, and in addition, is true economy, as it promotes condition and increases an animal's ability for work.

It is better to delay clipping until well into November, if possible, for then the coat does not grow so quickly, and if blanketing is well attended to, there will be no further occasion for clipping again during the winter.

Questions and Answers.

If there is any subject bearing upon this or any other department of our JOURNAL upon which you desire information, write us, and we shall be pleased to intrust your query to competent persons and publish the answer thereto in our earliest issue, and if an immediate answer is required, such will be gladly given if a postage stamp is enclosed. Write the queries on paper detached from all matters of business, sign your full name and address as a guarantee of good faith, and write only on one side of the sheet. We request the assistance of our readers in making this a useful and interesting feature, and we shall always be pleased to hear from any either desiring information or obliging enough to give it for others, upon any topic within our field.

Injured Sow—N. W. T., Pincher Creek, Alta, N. W. T.—I have a thirteen month old Berkshire grade sow which experienced considerable difficulty in farrowing her first litter. In consequence of the delay only three out of the litter of eight have survived. Owing to this fact several of the sow's teats have become spoiled. I wish to learn whether this sow will be of any further value for breeding purposes or no? (It is not an unusual matter for sows to lose the use for a season of some of their teats, but these generally become alright again after the next farrowing. For breeding purposes the sow will be serviceable. It is not a trouble likely to be permanent, nor is it one that will be transmitted to the progeny. —Ed.)

Patella Displaced—Subscriber, Grenfell, Assa.—This occurred in the case of a filly now two years old, by being tramped upon at the stifle joint. When the swelling subsided it was out. Bandages and liniments were used in vain. First summer and winter it was out most of the time, and the second summer it was in place the greater part of the time, but latterly it has been snapping in and out with every step. During the second winter it was in all the time except when lying down, and so it continued through the early part of the summer. Since she became fat and flabby on grass, it has been snapping in and out occasionally. Is it likely to become permanently right through natural maturity and strength? Should anything be done? If so, what? (As the filly gains age, the chances are she will get strong in the joint. It would be well to apply a cantharidine blister two or three times, at intervals of one month. She should be well fed and allowed gentle exercise.)

Curing of Heaves—G. P.—I have a young horse that has the heaves. I would like very much to know the best treatment that you could advise. [Restrict the quantity of bulky food. Feed good hay in moderate quantities; keep the bowels moderately active with laxative food, such as bran mash and roots, or boiled food, given two or three times a week at night. Give tablespoonful doses of Fowler's solution of arsenic in the food twice a day for a week or two at a time. May repeat the arsenic for a second term, after an interval of a week. Ground linseed in quantities of a pound a day is also beneficial.]

Treatment of Scratches—F. A. F., Wardsville, Ont.—Please favor me with your opinion as to the best treatment of scratches. [The treatment for scratches depends upon the stage of the trouble. In a recent case or one in which the skin is sore, and inflamed, a poultice should be applied for from twelve to twenty-four hours, in order to relieve the soreness. If the skin is raw, apply a couple of times a day the following lotion: one drachm sugar of lead, half a drachm of white vitriol (sulphate of zinc), to one pint of water. When the skin is dry and inclined to crack, use oxide of zinc ointment, or glycerine and carbolic acid, in the proportions of eight parts of the former to two of the latter; avoid washing the parts as much as possible, but when they become scroofy, scaly and scabby, occasionally wash them well with lukewarm water and castile soap, removing all scabs and scales. Rest is almost imperative in the majority of cases, until cracking of the skin ceases, then the skin should be softened with glycerine before the animal is used, to avoid its cracking again. If the roads are damp and muddy, and particularly if it is cold, avoid exposing the animal to these injurious influences. Many people think the constitutional treatment is of more importance than the local, which is a mistake in the majority of cases. If, however, the subject is suffering from some derangement of the digestive organs, or the blood is out of order, a purgative is generally beneficial. Attention should also be paid to the diet, avoiding that of a too stimulating character.]

The Farm.

Lucerne.

Those who have found lucerne or alfalfa a success or failure will be ready to accept the conclusions which the Washington Department have advanced. These concisely summed up, show that the drawbacks to alfalfa are: it is not easily established; it is less hardy than clover; if allowed to grow too long, its stocks become hard and woody; except in dry regions, cattle cannot safely be pastured on it; it requires peculiar treatment to make good hay. On the other hand its merits are: when established it does not run out; it withstands drouth much better than clover; it grows rapidly and may be cut early in the season; it gathers a large amount of nitrogen from the air, as well as from the soil, and is, therefore, very valuable as a fertilizing crop; it furnishes several large crops of

green fodder each season; when properly cured it makes excellent hay; it is relished and digested by all farm animals, and is an excellent flesh and milk producer; it makes muscle rather than fat, and is, therefore, valuable to use with corn and other fat-producing crops to make a well-balanced ration for cattle.

Wood-ashes.

On the question of wood-ashes Dr. Hoskins makes an interesting statement. "About 50 bushels to the acre of ashes, averaging 5 to 6 per cent. of potash, which will grow clover, when turned under the second season, will give 25 bushels of wheat, where 10 bushels of rye would have made a large yield without ashes, and where clover would have made no considerable growth." This fully endorses what we had to say in our last number, in respect to our exports of ashes. Ashes are valuable, not only for clover, but are of special worth for the orchard and vineyard. Even if they are leached, do not waste them, for they yet contain valuable plant food, though not in nearly the same quantity that unleached ashes do. Potash is an absolutely necessary element of plant food and the cheapest form of it, that the farmer can use, is that contained in wood-ashes.

Save the Liquids.

It is not generally known that in comparison with solid excrement, the urine is much more richer, and is also more valuable, pound for pound, than solid manure, because of the fact that it is really a solution of nourishing plant food. The urine from horses is six times more valuable than their solid excrement, and the liquid manure from cattle is four times more valuable than the solid. Under common circumstances the urine may be nearly all saved with the abundant use of straw, and completely so by the additional use of gypsum in dusting the stable floor. As it is far from good policy to "save at the bung to waste at the spigot," care should be taken when the liquids are all saved in the stable, that they are not filtered out of the manure pile into the nearest creek. To do its allotted work, a plant must be fed with nourishing food, which can most profitably be obtained through the agency of domestic animals. To give a crop manure that has been filtered by fall and spring rains, and blackened by the summer's heat, is exactly similar to throwing away the tea and offering one the steeped and insipid leaves.

The More Valuable Grasses.

Of the many grasses that will grow in this climate, the number of them which are very valuable is not very large. A knowledge of the more valuable of them is necessary to successful farming, as also of their special adaptations. To impart this knowledge, in some measure at least, is the object of this paper.

Timothy is perhaps the very best grass that we have. It grows well on almost any kind of soil that will produce fairly well, but is best adapted to loams that are rich in humus, and least adapted to sandy and gravelly soils lying upon a shallow subsoil. It sells well in any market when properly saved, and no grass has yet been introduced that will equal it as a food for horses. It grows well along with clover, especially the second and third years after sowing, and is easily cured in an ordinary season. The seed is also cheaply purchased in most seasons, and starts readily on properly prepared soils. Timothy does not stand the drought very well, as its roots do not penetrate deeply, but it is uncommonly hardy in its resistance of the adverse influences of frost and the cold winds of winter. It is peculiarly adapted to prairie

soils, where it grows so abundantly that nearly all the seed used now comes from those sources. The hope of competing successfully with such soils in growing seed would be a vain one, but, nevertheless, each farmer should grow enough for himself, as timothy seed is one of the commonest vehicles of carrying foul seeds that at present exists. Permanent pastures should have a share of timothy, but after a time it will fail in the presence of more persistent growers, as Canadian blue grass (*Poa Compressa*) which, like white clover, is indigenous to our soils.

Orchard Grass, next to timothy, is the most valuable of our grasses. It is best adapted to good soils that are fairly moist, and it will grow better in the shade than almost any other grass, hence its fitness for sowing in woodlands that are thin and sparse. It starts early in the spring and also grows well in late summer, furnishes a larger amount of pasturage than timothy in one season, and if cut early it makes good hay, but if left until it approaches the ripening stage it is insipid, wiry stuff. It should be very thickly sown. Some have put the amount for meadows as high as forty pounds per acre, which seems to us an excessive quantity. A few pounds sown to produce a variety may prove useful. As orchard grass stands well in suitable soils it should be freely sown in meadows or pastures which are intended to stand for a long time. In permanent pastures it produces more food than timothy. Orchard grass has not hitherto received that attention in Canada of which its utility is deserving.

Red Top is specially adapted to moist lands, so damp that other useful grasses will not flourish on them. It holds its own well and crowds out some coarser grasses which are inferior. When a good stand is secured in wet soils it should be allowed to remain for a number of years. When cut for hay it should be mown in early bloom, as if allowed to pass this stage its quality becomes much impaired. When pastured it should be eaten more closely than some other grasses. When not eaten closely it ripens culms which prevent the stock from eating later growth of succulent leaves found below these. It also soon forms a tough sod which prevents poaching by the feet of the cattle pasturing upon it. Red Top has not been much grown in Canada, but in soils that are too moist for ordinary cultivation more attention should be given to its growth by our farmers.

Kentucky Blue Grass is useful, but perhaps not so useful here as our own Canadian blue grass, which is, however, the Kentucky variety acclimated to our conditions. Our seasons are too short for its very successful growth. In southern latitudes it starts early in the spring and has a long period for growth in autumn, hence its greater value in those climes, especially as a grass for providing winter forage. It grows well in the shade, produces a stiff sod and maintains its hold well, but as it takes a long time to develop its roots so as to make a good stand, it is not adapted to short rotations.

These are probably the best grasses we have in Canada, at least in Ontario, at the present time. Others, as Meadow Fescue, Oat Grass, and some of the rye grasses and fescues may be of some use, but they should be sown with a prudent caution. They are not so well adapted to our climate as those previously mentioned.

C. H. WILSON, Greenway, writes:—"I think any good stock raiser ought not to be without your valuable paper. It is getting better all the time."

"THE JOURNAL always improving, is to Canadian Agricultural Journalism what the *American Agriculturist* is to that of the United States—the champion." A. J. DONSON, Box 392, Chatham, Ont.

For the CANADIAN LIVE STOCK AND FARM JOURNAL.

Plowing.

There is no subject that demands the farmer's attention more than this one, and yet with very many of them it receives but slight consideration. I shall try to briefly state my ideas on this important subject, founded on experience coupled with observation. I have had a great many opportunities for the latter, and have come to the conclusion that very few of those who profess to be plowmen know one-half of what there is to be known about plowing. How often in driving along the road one can tell where each land has been struck out by the ridge of thistles growing there! Now this ridge of thistles is the result either of not knowing how to open the lands properly or of carelessness, for which there is no excuse. In the majority of cases, I believe, the trouble is due to the latter.

To do good plowing certain things are requisite, a good plow especially, and a good point or share is one of the most important. A good team, two nine foot stakes, and a plowman not devoid of brains completes the outfit. I am aware that most farmers regard it as a loss of time, etc., to make and carry these measuring stakes from field to field, but if they will only stop long enough to calculate how much time they lose looking for a loose rail or stake to mark out their lands with, and then the extra time consumed in finishing their crooked lands, they will at once see that it is false economy to be without the stakes.

Having staked out the land let us proceed to plow. Just here let me say, that more men fail in the first two rounds of the land than anywhere else. You who know from experience all about the ridge of thistles that adorns the centre of each land, just try the writer's plan of striking out lands and see if those thistles do not vanish like hot biscuits from a dinner table. Plow the first furrow lightly, say three or four inches deep; then instead of "geeing" round and throwing the two furrows together, thus leaving a piece between them unplowed, "haw" round and throw the second furrow out. To do this properly, put the "nigh" horse in the furrow and run the plow an inch or two deeper than the first furrow. Now, if care is taken in throwing these two furrows together again, you have no difficulty in cutting all the ground, and I will guarantee that the thistle ridge will disappear.

I find it a good plan to open out all the lands the first thing. If you have two teams plowing put your best plowman and steadiest team to do this, and let the other one proceed to plow. When the lands are left open in this way for a few days, exposed to a hot sun, it is easy to understand what becomes of the thistles. Before leaving this part of the subject let me urge my fellow plowmen to take a little pains in striking out the lands. Make them straight and keep them so, as it is next to impossible to make really first-class plowing on a crooked land.

Having stated how to plow, the next thing to consider is when to plow so as to obtain the best results. First, as regards fall plowing. I am a firm believer in fall plowing, and the earlier the better. My own experience may not be out of place. I came into possession of a farm a year ago last April that was very badly infested with thistles, on which there had been no fall plowing done. As there were sixty-five acres under the plow, and all apparently ready for summer-fallowing, I scarcely knew what to do. We set to work, however, and carefully narrow-plowed and sowed fifty acres of it, reserving five acres of the remainder for turnips and potatoes, and ten acres for summer fallow. It is needless to say we had plenty of thistles in the grain. In fact there were so many that I could hardly wait till the harvest was off before starting the plow. As I had considerable draining and fixing up to do, I hired a boy for a month and a half and kept him plowing nearly all the time, so that all the ground had been well plowed, and two of the worst fields plowed twice, by the time the turnips were ready to draw in. This spring we narrow-plowed it all over again except the pea ground. This field we sowed with a combined cultivator and seeder, using three horses. To tell the truth, I am ashamed of that pea-field, and am heartily glad it is down by the bush. It is one mass of thistles, while the rest of the farm is comparatively clean. One field in particular I wish to mention. The year before I came here this

field was considered too dirty to do anything with, and as the fellow had only one crop to take off, let it grow up wild. It was wild indeed. This field is now the cleanest one on the farm. The weeds and thistles have entirely disappeared.

Now, here are some of the lessons I have learned. First of all, plow well and deep, six or seven inches is not too deep in most localities, and as soon after harvest as possible, then harrow or cultivate and re-plow if time and weather permit. Spring plow by all means. No one can persuade me that it is just as good to cultivate as to plow, in the spring.

One thing more. As soon as you get one field plowed in the spring, sow it, if at all possible, the next day. It is false economy to let it remain unsown for even one day, as the weeds and thistles get the start of the grain. Besides, the grain never seems to do so well as when sown on the freshly plowed ground. I am strongly in favor of finishing up one field before beginning another, everything perhaps except the rolling, which may be done just as well later.

MAC.

Rothamstead Experiments up to Date.

Sir John Bennet Lawes has recently re-issued the plans and results of his experiments at Rothamstead, brought up to 1889. It is instructive and interesting to note the difference in the wheat yields of plots without and with various manures during the period of forty-seven years. A plot dressed annually with 200lbs. of sulphate of potash, 100lbs. of sulphate of soda, $3\frac{1}{2}$ cwt. of superphosphate, and 275lbs. of nitrate of soda, for a period of forty-eight years, has yielded an average of $36\frac{1}{2}$ bushels per acre. The first nineteen years show an average yield of 39 bushels. The last nineteen 34 bushels on the plots to which no manure whatever was applied, the average for the thirty-eight years is but $13\frac{1}{2}$ bushels per acre, or $14\frac{1}{4}$ bushels during the first nineteen years, and only $11\frac{1}{2}$ bushels in the last nineteen. The plots to which 14 tons of farmyard manure has been applied annually, has given for the thirty-eight years an average of 34 bushels per acre, or $35\frac{1}{2}$ for the first half of that period, and $32\frac{1}{2}$ bushels for the last nineteen years. Mineral manures as appearing in the first mentioned trial, but without the nitrate of soda, yielded during the thirty-eight years only 15 bushels. From these results it will be seen that none of the manures have proven to be as beneficial as farmyard manure for wheat growing.

A Good Word for the Hired Help.

Editor CANADIAN LIVE STOCK AND FARM JOURNAL:

DEAR SIR,—Kindly allow me a short space in your valuable paper to make a few remarks with reference to an article which appeared in the September number entitled "Another Clean Farm," over the signature of Robert B. Elliott. I think Mr. E. wrote at random. In the first place he contradicts a statement which appeared in a previous issue to the effect that there is but one clean farm in the Dominion, and speaks of one in the township of Markham, which has been proud of its cleanliness and fertility for the past fifty years. Leaving out the fertility, and keeping to the subject, I would like to know where this clean farm is situated? I know that in said township there are some excellent farms, but I know not of one that can be called clean.

Mr. E. also gives his ideas on the course a farmer should pursue to keep his farm clean. He begins by advising him not to place too much reliance upon hired help. Is it more necessary that farm work, to be well done, must be undertaken by the farmer himself, than working in any other line of business? I think not. The British farmer depends principally upon hired help for the performance of his work, and has it fairly well done too, as plenty of Canadian farmers who have visited the old countries can vouch for. So that I think hired men, whether they be engaged upon the farm or in the factory, are not quite as unreliable as Mr. Elliott would have us believe.

He concludes his article by informing the public in general, and the farmer in particular, that the thistle is a weed very easily got rid of. That statement must be a surprise to the theoretical farmer who has written articles innumerable, giving methods not less numerous for the extermination of that noxious weed, also to the practical farmer who has fought it with all the implements manufactured for that purpose. Still it is in existence. Mr. E. says, "Keep the thistle plowed down." Very good, but where would the crop come in? 'Tis well known to the farmer that for about four months of the year the soil has to be left untouched (at least with the plow), if a crop is to be raised. It is during this time that the thistle gets its head above water, so to speak, thereby making its riddance a difficult task.

MARK HAM.

Around the Counsel Table.

Where no counsel is the people fall; but in the multitude of counsellors there is safety.

Fences and Fence Laws.

1. What style of fence have you found to be best in point of cheapness, durability, and utility? Kindly give full detail as to the method and cost of erection.

2. Do you think that any changes are desirable in regard to the present fence laws of your Province, and if so, what would you suggest?

No fence the best—Hedges good along roads and lanes—Force no man to build a line fence.

1. No fence at all is the cheapest, most durable, and best in many respects. To stop cattle and horses some fence is needed in some places. We have miles of honey locust hedge fence in Stamford township. To properly care for this fence requires considerable labor, but not much expense otherwise. One or two barbed wires fastened at intervals to the hedge itself, will make a well kept hedge very effective. Hedges practically occupy too much room, as good crops cannot be grown close to them. Along roads or lanes they answer nicely. Cattle browse them some and cause them to thicken. Many thousands of young locusts, for the use of a hedge company are grown hereabouts. The farmers that turn the job over to a company will know more about hedges than they care to know, and pay for the knowledge at the same time. I have seen existing hedges that were in a bad way after submitting to a few patent rights. Shade trees in rows are used for posts, the wires being stapled to a scantling attached to the trees. I think the coming farmer will make fences by using posts at some distance, say fifteen to twenty-five feet apart, and two or more wires placed pretty high up, and not try to fence against small animals, which should be confined in special enclosures. I think of trying iron posts, and in time they will, I think, be largely used. Such fences take very little room and would harbor no weeds. Farmers have too many fences. They harbor weeds and rubbish and occupy much valuable land.

2. I think fencing legislation is largely in the hands of municipal councils, and hence the councils and the people should be educated up to cheaper requirements in line fences. No one should be legally forced to build a fence along any road. If councils have the power to require such fences to be built, the power should be cancelled. Why should any man be forced to build even a line fence? Let the man who owns any stock take care of it. He has no right to call upon others to fence against it. If both parties own stock and mutually agree to erect fences of a certain kind, so let it be.

E. MORDEN.

Sec'y Welland Co. F. Institute.

Cedar fence the best—No complaints as to Fence Laws.

(1) I have personally tested about twenty different styles of fence: rail, board, wire, and wire and board combined, and have had about as many more varieties under observation for a number of years, such kinds being in use by neighbours and others, and I feel thoroughly satisfied that a straight cedar rail post and stake fence comes nearest to meeting the requirements in regard to cheapness, durability, and utility.

Stake out the line the fence is to occupy; put in small pegs eleven feet apart along the line; dig the post holes three feet or over in depth; place posts in position so that one side will be in a straight line, and fill up with earth. Select a fairly straight, medium sized rail for top rail of fence, dress both ends to four inches thick, place one end on top of the last top rail, put in position and place the other end on light jack at the desired height. Place a short piece of board four inches wide against post, under the position which will be occupied by bottom rail. Take a small stake and place it against the board and top rail, wire tight under the top rail and above the board at bottom. Place

the bottom rail in position and take out the board at the bottom, move to next space and repeat the operation. This work being completed, place the second rail from bottom in position, and wire again above this rail. Place the third and fourth rails in their position and this will fill the gap under the top rail, making the fence five rails and about four feet four inches in height. Cut off the stakes and posts evenly at a proper height, and the fence is completed. This makes a strong, clean, durable, cheap, and fairly good appearing fence, and will cost about 45c. per rod. To figure on the basis of 100 rods it will be as follows: 800 rails, at 3c. each, \$24; 150 posts, at 4c. each, \$6; 150 stakes, at 1c. each, \$1.50; 50 lbs. of No. 11 wire, at 3c. per lb., \$1.50; 10 ten days labor, at \$1.25 per day, \$12.50; total, \$45.50. Of course the above figures will vary in the different localities in the Province, but in this district the different items are correctly given I believe.

(2) In regard to the fence laws and the changes which might be desirable therein, I am not in possession of sufficient information upon this subject to give an intelligent opinion upon that question, and will therefore content myself with stating that I have heard but very little complaint in regard to the laws relating to fences.

JAMES McEWING.

Drayton.

Combined Wire and Board Fence Found Most Satisfactory.

(1) For many years after the old rail fences began to give out, boards and posts were the principal fence used here. At that time common lumber could be bought for about \$8 per M, and a fence of four boards high cost about \$1 per rod. Now such a fence would cost all told about \$1.40. Some years ago I built a fence of posts and rails, which I have found very good. Posts ten feet apart, six rails, and a barbed wire on the top. If any one has old rails that can be used, he will find this one of the cheapest and safest fences he can put up, but be sure and keep the wire low enough to prevent the stock getting their heads between the top rail and it. The cost of this fence would depend on the value of the old rails and price of posts, which every one would have to judge for himself.

Some two years ago I built part of a lane fence in the following way, and am so well pleased with it that I intend to do more of it where needed. I set the posts eight feet apart, put a board 1x12in. x16ft. at the bottom, and one board 1x6in. x16ft., three feet from the ground to bottom of the board, three barbed wires between the two boards, and one about ten inches above the top one. This makes a cheap, safe fence. Hogs will not get through, cattle and horses can see it, and there is but little danger of stock getting hurt on it. About the cost per rod or say 16ft.: 2 posts at 10c., 20c.; digging holes and setting posts, 5c. each, 10c.; 24ft. of lumber, at \$15 per M, 36c.; about say 5 lbs. wire, at 6c., 30c.; labor of putting up, and nails, say 10c.; total per 16ft., \$1.06. I have put the price of material at about what they cost here, but this will vary in other districts to either more or less. Now, from what I have seen of this fence, I consider it to be the most economical one, considering its safety, that the farmers in the older parts of the Province can build, as there is not near so much danger of stock hurting themselves as with an all wire one.

THOS. A. GOOL.

Brantford.

[Owing to the very full and complete report on the Toronto Industrial Exhibition that appears in this issue, we have had at our disposal but a limited space for the publication of the communications that have reached us on these important questions. In what is given we feel convinced that our readers will find much information of interest and practical value. We hope to give a fuller discussion of these or like questions in our next number.—Ed.]

"For your satisfaction, Mr. Editor, I may say, with the arrival of the JOURNAL came answers to my advertisement, and still they come, one this morning from Humeston, Iowa, showing that your columns are appreciated in Uncle Sam's territory. Yours truly, Wm. Tredway. Port Union, Ont., Sept. 23, 1890."

The Dairy.

Pork-Packing Factories.

Prof. Henry states that there is no reason why farmers cannot co-operate and establish small packing houses which will send out smoked ham, breakfast bacon, sausage, and lard. While the idea seems feasible, we believe that it would be intensely profitable if the farmers in cheese factory districts, would co-operate and each send a certain number of hogs to be fattened near the factory on the whey, that in too many cases is put to little if any use. Whey is too valuable a food to waste, and money is too scarce an article to slight an opportunity of making some. In a good neighborhood, it would be an easy matter for the farmers to co-operate to that extent, much to the individual benefit of all. It would afford a profitable means of either using the buttermilk of a creamery, or the whey of a cheese factory.

Butter Factories.

The paper from the pen of Mr. Showell that appears in this issue, is one that our readers will peruse with great interest, as it treats of a very important question in a thoroughly practical and thoughtful way. To fully endorse the paper from beginning to end we would suggest one change, and that is, instead of the farmers being required to send their whole milk to the factory which the essayist commends, we would offer the better suggestion, that only the cream be collected, thereby leaving the patrons the sweet skim milk to feed calves and hogs, and also putting the cost of collection at the lowest limit. In advocating the collection of the whole milk, we can readily see that Mr. Showell has in view the securing of the best sanitary conditions, but we feel certain that by strict and clear instructions being given to the patrons, and these enforced as to the proper methods of caring for and setting milk, these conditions, and the additional advantages we have mentioned, would also be brought about.

Testing Milk in Creameries and Cheese Factories.

Of the many advances in dairying of recent years, none bear so directly upon profitable dairy husbandry as those which have been made in methods of testing milk, for it is clear that for co-operative cheese or butter factories to hold the patronage of our progressive dairymen, a more equitable system of milk or cream valuation than that of paying solely for quantity must be adopted in practice. Cheese and butter factories have been money mints to our farmers, enabling them to secure a steadily profitable market for a product that taxes but little the fertility of the farm and labour of the farmer. But a change is demanded. It needs no lengthy course of reasoning to prove that the system now in use robs progressive Peter to pay careless and backward Paul. At those factories where no system of testing is followed, fraud and indifference sell at a premium, while honesty and enterprise are heavily discounted, but with a method of proper valuation this would be reversed.

Before S. M. Babcock had given to the dairy world an account of his new method, we were of the opinion that for creameries the best system of testing was that used with the oil test churn. For comparison let us briefly state the most important features of Babcock's method. The milk is measured into a small flask with a long neck which is divided into a scale for measurement. To this a measured quantity of sulphuric acid is added. The flasks are then placed into

sockets fixed into a horizontal wheel which is attached to gearing proportioned so that the wheel which carries the test flasks makes about ten revolutions to one of the crank. The horizontal wheel is covered by a copper jacket with a cover for the purpose of holding warm or heated water. In creameries heat may be easily supplied by a pipe connection with the boiler. When the flasks are put in the water should be heated up to 200° F. if the flasks have stood after the acid has been added, but if they have not no heating at all is necessary. When the bottles have been whirled for six or seven minutes at the rate of 600 to 800 revolutions per minute, the flasks are filled to the neck with hot water, then twirled for one or two minutes and more hot water added. The flasks are taken out and the per cent. of fat read directly by means of a scale.

The distinctive differences between this method and the Oil Test is due to the simplicity of the former, and the rapidity with which a number of samples of milk or cream may be tested. The Oil Test, it may be stated, determines the butter-making value of the milk, but the late experiments of Vermont station are conclusive in showing that what it has been customary for dairy authorities to consider as a difference in churnability of fats, is really a difference in the methods of churning. Babcock's test could be put into practice in the same manner that the Oil Test is now used. The cream collector could be supplied with numbered tubes with which to take samples of cream, and these brought to the factory could be analyzed and the amount of fat shown entered by the clerk opposite the patron's name and paid for accordingly.

We are anxious to see our cheese makers take up this matter, for the single drawback to the cheese industry that we know of is the present system of paying for milk. This method of Babcock's is simple, true, cheap, and unpatented, so that there is no reason why it should not meet with general favour.

Duration of Milking Period.

While it is a lamentable fact that in general Canadian practice the duration of the milking period is unprofitably short, yet there is a danger amongst the more advanced breeders to err in the opposite direction, especially in the case of cows with their first calves. If strong healthy calves are desired, the dairy cow should have, in conformance with the demands of health, from one month to two months' rest before the next parturition. Weakly and sickly calves are sure to be born if the energies of the cow are taxed too much in requiring of her the support of a growing fetus, which heavily taxes her system, and the more heavy drain of a copious milk flow. The time of drying off should be determined largely by the stamina and maturity of the cow, which every stockman is able to estimate. In conversation with a leading dairyman, he informed us that he had suffered through too readily accepting the advice of others to extend the milking season, for he found that while it was directly profitable to stimulate the milking period to eleven months, yet when he came to look over the calves from his cows he came to the conclusion that the advisability of the practice, with him at least, was questionable. In urging the lengthening of the milking period of young cows the reason is given that the habit becomes fixed with them in after years. While there is truth in the observation, yet animals between two and three years of age, without their own growth finished, are not capable of standing without detriment this double drain on their energies.

It may not, perhaps, show any evil effects at once, but they will be shown none the less surely in the after development. In common practice it is surprising how short the season of milking is made by indifferent feeding, and worse management. There is a far greater possibility of advancement in that direction than in any other phase of the dairy interest.

How can we best Secure and Maintain a Wholesome Public and Private Supply of Dairy Produce?

Read before the Ontario Health Officers' Association, at Owen Sound, by O. J. SNOWELL.

Al out three or four years ago in the city of Birmingham, England, a well-known butter and cheese dealer exposed for sale in his store window a certain keg of butter. The dealer was a judge of butter, he had tasted and tested that particular keg, and said that it was good and up to the average, and more than that, it was remarkably cheap. That keg of butter was purchased as an experiment; it had been shipped from Canada, and the Birmingham butter dealer desired to try if he could do anything with Canadian butter in the market. And so that keg had a prominent position in the centre of the marble slab of his handsome plate glass window, and was adorned with a bright show card setting forth its nationality, its superior quality, and above all its cheapness. One, two, three days passed away—people came and went carrying with them their cheese, butter, eggs, bacon and so forth, but that keg from Canada had not been touched. The dealer was a shrewd man and gave his orders accordingly: "Take away that Canadian butter and set it on the other side of the window, put a fresh card and mark it at the full price. But don't say where it came from." The order was obeyed and before night that keg was empty. This incident was of little consequence to the Birmingham dealer, and no doubt has long since passed from his memory. But to us in Canada it represents a leakage of thousands upon thousands of dollars in the national wealth of our Dominion, and points to an evil in our system of butter making which leads the world's market to avoid dealing with us in this article.

Let us now proceed to investigate the subject for ourselves. Great Britain, though a little spot, is far greater than many of us have any idea of in population, in wealth, in national influence, and in her demands for the good things of this life, and among these for those three great B's: bread, butter, and beef. We learn from the valuable papers of Mr. Thos. Macfarlane, Chief Analyst of our Inland Revenue Department, that the enormous amount of one hundred and eighty-seven million pounds of butter are annually imported by the United Kingdom. Set this down at the small first cost price of butter to-day in Canada, viz., 12½c. per lb., and we have a sum upwards of twenty-three million dollars, which is within the reach of the Canadian farming interest, and yet for three days one little keg is offered to the inhabitants of one of the largest cities in England, and not one pound of it will they buy until the name of Canada is hidden, and then they swallow the pill at once and find it is not so bad after all. And so we get a hint that some of our exported butter is very good and other is exceedingly bad.

There is another little kingdom in Europe, we speak of Denmark, a good agricultural country, with a climate something like our own, but very much smaller in her acreage. There is room enough in Canada to plant 235 kingdoms as large as Denmark and still leave us upwards of 12,000 square miles. And yet this little kingdom, with a population of 2,000,000 against our own 5,000,000, possesses 900,000 milch cows while Canada can only raise 781,000 odd. Out of the 187,000,000 lbs. of butter purchased annually by England, 69,000,000 are supplied by Denmark, and this amount is increasing annually at the rate of twenty per cent., while on the other hand America can only find room in the London market for 3,000,000 lbs., and this small amount has been decreasing at the same rate that the other has been increasing until to-day it takes a smart man to sell a single keg of

Canadian butter to the British public, and he has to draw the veil before he can do it. "What's in a name?" Ask any well appointed west end London housekeeper what butter she will buy, and her reply will be, "Oh the Kiel, certainly." Follow this with another question, "Do you ever buy Canadian butter?" and the probable answer will be, "Oh no, indeed, we never do," with a special emphasis on the "we." Now, true as all this may be, it is not gratifying to us who call Canada our home, and say from our heart, "Canada, with all thy faults I love thee."

If you want to know the cause of Denmark's supremacy in the butter market, read Mr. Macfarlane's paper on "Dairying Operations in Denmark," and you will be both delighted and instructed. But if you are willing to unearth the roots of our failure, let us together examine our own operations and see wherein they diverge from the system adopted in Denmark and from the laws of health.

Set a pan of warm milk in a close closet amongst your groceries, and in about an hour taste it with a clean mouth, and you will be able to detect the various parcels of pepper, spice, coffee, soap, or what not, that are lying near the milk. Bear in mind this faculty which milk possesses of partaking of the taste of things which are near and not actually touching, and then answer for yourselves the question: Is that milk good wholesome food which has stood in the underground milk house, built of logs partly decayed, with fungus and mould in the corners, some of the chinks stopped with damp straw, and it may be a toad peeping out from under a loose stone? We hardly dare carry this hint on warm milk any further, in cases of fever or contagious disease in the family where the butter is to be produced. Inspectors and laws are powerless in such a case under our present system. But to return to the dairy. It may be the cows are few and not giving much milk, and the cream crocks are filling up very slowly, the weather is close and the cream is getting thick and sour, but the table must be supplied. There is nothing but the cows for the family to depend upon, so the eldest girl must churn and carry the butter to market. The horses are busy in the field, so she must walk. The road is long, hot and dusty, and when she arrives at the store, wearied with her load, the butter is too soft to lift from the dish, and so the boy after weighing it, dish, cloths and all, carries it into the cool cellar where he gets rid of it in some way, returns the oily dish and cloths and fills the basket with the required groceries *ad valorem* for the weight of the butter, and the tired girl returns home. But the butter! We cannot forget its appearance when it was carried away to be poured out in that storekeeper's cellar. We must remember that there are also many good butter makers, and much of the good as well as the bad finds its way to this store, or we fear our own housekeepers might be tempted to send to Denmark for their supplies. But to get rid of that butter. A selection is attempted, a little salt is added to kill the rancidity, the various parcels are compounded, packed in kegs, and shipped to establish a character for Canada wherever there is an opening for doing so. And the taint of all those ill-kept cellars, dairies, and cupboards, is gathered together in that compound. The poison in it may not be very potent, but such as it is it is all there, and it enters into the systems of all those who partake of that butter for food, and it does its work accordingly. This picture, though still true to-day, is not to be taken as the general system of Canada. The creamery collectors have worked a great improvement. The warm milk being placed in closely covered cans and submerged either in ice water or a running stream, escapes most of the evils of the tainted dairy, but it is not generally adopted or likely to be, as the farmer's pay from the creamery proprietor is regulated by the market price of butter sold in the store, which means that no matter what care the farmer takes to supply good cream, he must be satisfied with one cent per pound above the lowest price which the worst quality of home made will produce on the market. He also loses all his buttermilk, and is further subjected to deductions in cash for certain tests by the creamery proprietor, over which he has no control, and this leaves him financially worse off than those who do their own churning.

We will now briefly review the operations of Denmark, again quoting from Mr. Macfarlane.

The history of her butter-making he divides into three periods:

(1) The Repacking Period, which corresponds with our system, and failed as ours has done.

(2) The Factory System, wherein the whole milk was sold by the farmer to the factory proprietor. This did not answer because their interests were not identical.

(3) The Co-Operative or Partnership System, as now generally carried on, wherein each farmer is a partner holding as many shares as he owns cows, and as much interested in the quality of the butter as in the quantity of the milk, and every factory carried on under strict laws and Government supervision.

Now that we see our own failure and the success of Denmark, our wisest course is at once to forsake our old tracks, step on to the platform where Denmark is now standing, and profiting by her experience without following her immediate steps, we may even attain to a higher standard. To do this we must petition our Government (say our Provincial Government), to draw up instructions and regulations, provide proper overseers and suitable buildings (the rent for which being paid by our various co-operative companies would become a revenue to the Province), and send such officers into the world's markets as shall secure the introduction and sale of the article when produced.

By adopting this plan we arrive most quickly and surely at a solution of the difficulties, evils and failures of our present system.

(1) Because the milk never gets into the many impure dairies, but is strained direct from the milking pail into the transfer can, and is at once removed to the well appointed co-operative dairy of the district.

(2) Because the farmer has no inducement to tamper with the quality of the milk, for being a partner his interest lies in the success and improvement of the dairy operations.

(3) Because inspectors can do their work in one large dairy under a regular routine management, where they can never attempt it in the multitude of smaller scattered ones, which are subject only to the will of their several owners.

(4) Because in cases of infectious diseases among the cattle or in the family of any farmer, the regulations prohibit the sale of his milk to the co-operative dairy under a heavy fine; and further, it is evident that as the table of each partner is supplied with the milk, butter, and cheese from the co-operative dairy, they will all be on the lookout that no tainted milk is mixed with that which is to become the food of their own families.

(5) Because each farmer will benefit financially, as he will participate in all the profits, and because the best markets can more easily be reached in co-operation than by individual application.

(6) And lastly because much labor will be saved in each farm house, and therefore each farmer and his family will have time and opportunity for improvements in other directions.

We may say in conclusion that ultimate success cannot be expected at once. Many will prefer the old way, others will want to see success before they venture, and few will be able to lead in the reformation though willing enough to follow. If, therefore, the system advocated meets with the approval of the officers of this Association, we hope that they will take the initiative in bringing about a reformation which will not only improve the quality of our daily food, but add incalculable wealth to our vast Dominion.

Poultry.

Cleanliness of Poultry.

Cleanliness and warmth in the poultry-house are prime essentials for profit. The first requires that at least twice a year the inside of the house should be white-washed thoroughly, and that at a short interval of a week or oftener the droppings should be removed. The hens should have a box of dust and an abundant supply of gravel or plaster always available to them. To secure warmth there is nothing so effectual as wooden dead air walls lined with tar paper, and a southern exposure.

The Pekin Duck.

After experimenting for the last twenty years in duck culture with all the large breeds, crossing them in every possible way to get the best results, Mr. Rankin, who is perhaps the most extensive duck

raiser on this continent, asserts that he is perfectly satisfied with the Pekins. As he states that he grows nearly ten thousand ducklings yearly, his opinion will be considered valuable. His seeking has been after the bird that will grow the greatest number of pounds of flesh in the shortest time, and also be a bird that will give the first eggs of the season, so as to enable him to get young birds on the market when they will command the highest prices, and the Pekin, with him, has best met these requirements, while at the same time yielding pure white elastic feathers, largely mixed with down.

Eggs or Fowl.

The novice embarking in the poultry business, and those seeking to introduce new breeds, or infuse their poultry with new blood, are called upon to answer the question as to whether it is the better policy to purchase eggs for hatching or matured fowl. Those who have had experience in this matter, will bear us out in saying, that as a rule, it is a much better plan to buy the young fowl. Of course in buying eggs, there is the possibility of getting breeding stock much cheaper, but it will be found in most cases, that the losses in hatching and rearing make the survivals of the batch more expensive than those bought almost matured. Another important consideration is, that in buying the fowl, you are able to determine whether they have been bred pure, through their markings and form, and further, the chances of atavism or reversion—that rock on which many novices shatter their success—are provided against. No matter how much care is taken to keep fowl pure, they are apt to revert back to some original ancestor, and show this in a feather on the shank if of clean-legged descent, or a few black feathers if descended from parents pure white in color. In the case of buying the fowl, the breeder has taken that risk. On the whole, we are sure it will be cheaper and more desirable to purchase the fowl rather than the eggs.

Feeding Poultry.

(FOURTH PAPER)

The midday meal for fowls in confinement may consist of soft food or grain, but the former is preferable. It may be of the same ingredients as are used in giving the morning meal as described in the August number of this JOURNAL, and prepared in the same way. It may be advisable sometimes to alternate the soft food with grain. The necessity for this will be regulated by the digestion of the fowls. When the fowls are at liberty this meal may be omitted entirely in summer, but in winter a small grain ration may be in order. The evening meal should always consist of whole grain. If one kind is used it should be wheat, but a variety is better. Barley, buckwheat, and occasionally corn and peas, are all serviceable, more especially in winter. In summer, oats and barley should be used freely for the evening meal. This meal should always be fed just before the fowls go to the roost. The time, therefore, will vary with the season. In winter it may be as early as four o'clock, and in summer as late or later than six o'clock. It should also always consist of one or more varieties of whole grain. To the reflective mind the reason will be apparent. Soft food is easily and quickly digested, and as a consequence sooner nourishes the system, but on the other hand its sustaining power is sooner exhausted. With grains the digestive processes are slower, and therefore the effects of the nourishment given to the system are more prolonged. Again, the different kinds of grain food produce more heat in the system than the soft

foods, and as a consequence the fowls are fortified against the adverse influences of low temperatures. The colder the weather, therefore, the more carbonaceous should be the foods which are used. In the coldest weather peas and corn may be used. The evening meal should be a full one. The fowls in winter do not partake of another meal for from fourteen to sixteen hours. The drain on the vital forces of the system is therefore very great. Too much pains, therefore, cannot be taken to have the evening meal full and exactly adapted to the conditions of temperature.

When the grain feed is to be purchased the exact kinds can be obtained which are best adapted for the objects sought. A farmer may not be able to grow buckwheat or corn to advantage, but may have other grains in plentiful supply. His policy in such a case is to feed such grains as he may have, giving prominence to one or the other in the ration to meet the exigencies of the case. Where the foods are to be purchased, however, they may be adapted exactly to the needs of the fowls, due consideration being given to prices.

The relation of the kinds of grain fed to the egg product is important. When only one kind of grain is used, that one should be wheat, next in value for egg-production is buckwheat. Corn and peas are not so useful for this purpose and therefore when eggs are the principal object sought, should be but sparingly used. Their chief use as a ration for fowls is to promote warmth and to induce the laying on of fat.

Select and Breed Good Layers.

As it has been determined by experiment, it will cost to feed a good laying hen one dollar a year, and in return she will usually yield a profit of the same amount, depending largely on breeding and management. Considering the importance that has become attached to breeding in useful strains in the raising of other domestic animals, it is indeed surprising that more attention is not given to the selection and line breeding of poultry.

The mere fact that the points of a good layer are not very distinctly known may in part account for this. Observation, however, will show that the best layers, as a breed or individually, are the most active in temperament. A good scratching hen, as it has been said, is most generally a good layer. Besides her happy disposition, which finds vent in a joyous cackle, it may be said that there is a sprightliness in appearance, bright eyes and clean plumage, red comb and wattles, that are striking attributes of the layer.

The importance of breeding in line to layers, is founded on sound sense. By selecting the best laying hens and mating them to a male of laying strains, good layers would result. It would be upsetting one of the firmest established rules of breeding if the outcome developed otherwise.

At this season of the year the flock may be thinned out to better advantage than at any other time. In making a choice of pullets the aim should be to select those that are active in temperament, full in form, and of vigorous vitality. They should be well feathered and possess the makings typical of the breed. As the earliest hatched pullets are the first to begin to lay; and also, as a rule, the first to be ready to set in the spring, it is desirable to choose them as far as possible. In regard to the cockerel the chief considerations are to note that he is vigorous and in every way shows the characteristics of the breed.

Horticultural.

Construction of Forcing-houses.

The Michigan Experimental Station in a recent bulletin advises that the walls of green-houses below the surface be built of grout cement sand, and cobblestones, and that above the wood with from two to four thicknesses of board, two of building paper, and an air space. They would build the roof of permanent sash bars, and use glass at least twelve inches wide. In respect to heating, they have found hot water better than steam heating for small green-houses. For most purposes it is stated the combined overhead and under bench system seems better than to have the pipes either all overhead or under the benches.

The Failure of the Fruit Crop: Its Probable Causes.

The fruit crop of 1889 was a short one, principally owing to severe frosts at the time the fruit was setting. It was naturally expected, therefore, that the crop of 1890 would be a very large one. But what are the facts? The fruit crop of the present year is the smallest that has been known for many years, and what is more to be regretted than the loss of this year's crop, the trees are in many instances attacked with some form of blight, which has wholly or in part prevented any increase in growth and which gives them a diseased appearance.

A somewhat similar visitation, but far less severe, visited the country some years ago, the effects of which could be observed on the trees for two or three years in the small additions to the growth that were made, and in the general absence of indications of vigor.

It is time, therefore, that the cause or causes of these visitations on both leaves and fruit should be investigated, and we are glad to notice that our American friends are astir in the matter. A bulletin has been issued on the subject from Cornell, which contains much that is not only suggestive but useful and practical.

The common explanation as to the causes of the falling of the blossom or of the fruit just after it is set, is that the wet weather prevents fertilization, and that the cold winds so interfere with and check growth that the fruit falls from lack of sustenance. Plausible as these explanations appear they are probably incorrect. It is now known that the blight in the leaf is caused by the apple-scab fungus, and it is supposed with good reason that the failure of the blossoms to set, and the falling of the fruit just after setting, is attributable to the same cause. Further investigations, however, will require to be made before this view may be set down as accepted.

There is no doubt that the cold and copious rains at the time of flowering is intimately associated with the quality and the fruit will not be first class on the trees that have suffered much from the blight, owing to an impaired vitality. The fruit is almost likely to suffer from the apple-scab fungus, which is always present to a limited extent, even in favorable years. It is this same fungus which causes the fruit to be more or less covered with scabs. Where these appear, the development of the fruit is arrested in that portion of it near the scab.

Experiments have been made during the past two seasons to discover a remedy that will also act as a preventative, and with much promise of success. L. H. Bailey, the Professor of Horticulture at Cornell

University, gives the following formulas to prepare an application which he seems confident will accomplish the desired end:—

1. "Dissolve 1 oz. carbonate of copper in 1 qt. of aqua-ammonia; dilute with 100 qts. of water when ready to apply.

2. "Place 2 lbs. of copper sulphate in sufficient hot water to dissolve it, and in another vessel dissolve 2½ lbs. carbonate of soda. Mix, and before using add 1½ pints of ammonia, and then dilute with water to about 30 gallons."

Fortunately the mixture is not a dear one. The cost for five or six applications of it on a large tree is not more than 25 cents, and so many applications in one season are not, in most cases, considered necessary. It is recommended that one application be given a short time before the blossoms open, another just after they fall, and a third with the presence of the apple-scab fungus; hence the prevalence of the popular idea that the wet weather is directly responsible for the failure of the fruit to set through lack of fertilization.

The injury to the tree is in many instances, most serious. Not only is the growth checked, but the functions of the tree become so impaired that it does not produce good fruit for a year or two thereafter, and in some instances, never again. Hence the visitation is most serious in its nature, because of its far reaching consequences.

The chances are that there will be an unusually heavy setting of blossoms next year again. When growth in fruit bearing trees is checked, this is pretty certain to follow. That the fruit may set is not improbable, but three or four weeks later. The mixture is applied by spraying.

A species of leaf blight, somewhat similar, also attacks the pear, and it affects adversely both the leaf and the fruit. The fungus is found on the pear leaf in more or less definite spots. This is not to be confounded with the pear blight, which blackens all the leaves on a stem or on a part of it, and for which the only known remedy is removal below the diseased portion. What is termed the Bordeaux mixture has been found a sufficient remedy for the pear leaf-blight, which occurs on the leaf in spots. The following formula is given by Professor Bailey, for making this mixture: Dissolve 6 pounds of sulphate of copper in 16 gallons of water. In another vessel shake 4 pounds of fresh lime in 6 gallons of water; when the latter cools pour it slowly into the copper solution, mixing the two thoroughly. It is best to prepare the mixture a day or two before using.

The Apiary.

The Extermination of Foul Brood.

As many of our readers are doubtless aware, an Act was passed during the last session of the Legislature, having for its object the extermination of the foul brood in the Province, so far, at least, as this may prove practicable. This Act was passed at the urgent request of the Bee Keepers' Association of Ontario, and is stated on the high authority of Mr. Allen Pringle, the President of the Bee-Keepers' Association, to be the best of its kind in any country.

It provides for the appointment of an inspector and sub-inspector whose duties are to journey through the Province when notified by the Inspector; examine all colonies infected or supposed to be infected; give such directions as are likely to prove successful where cure is deemed possible, and personally superintend the carrying out of these so far as necessary, and

when the case is one of the virulent or malignant type, to order the hives and appurtenances belonging to them to be burned in his presence. He is armed with authority to enter any yard when so notified by the President of the Bee-Keepers' Association, and in case of resistance, may apply to a magistrate who will swear in a sufficient number of constables to enable him to enter such yard, and to burn all the diseased colonies that may be found within it.

The President of the Bee-Keepers' Association may, on his own personal knowledge, or on the complaint of any bee-keeper, issue an order to the Inspector to proceed to any yard in the Province, when so notified, with a view to its purification. The complainant may be required by the President of the Bee-Keepers' Association to deposit with him the sum of \$5 at the time of entering the complaint, as a guarantee of good faith.

Thus it is that legislation has been secured at last, which, had it been secured many years ago, would have saved thousands of dollars to the bee-keepers of this Province. Some, unmindful of the interests of others, may look upon the Act as high-handed and tyrannical, an unjustifiable interference with the liberty of the subject. Its passage is but another illustration of the truth that in business matters at least, men recognize this important principle and act upon it: that the individual in prosecuting any calling, must have some regard to the welfare of his neighbor.

Mr. Wm. McEvoy, the present Inspector, has been wisely chosen. He it was who years ago announced in the *LIVE STOCK JOURNAL*, that foul brood ordinarily could be cured, but we will have occasion to refer to this more fully in a subsequent issue. Mr. McEvoy has had much experience in the cure of this disease since the period referred to, and is therefore an adept at this critical work.

The extreme step of burning any colonies has not yet been taken by the Inspector, nor will it be taken, he assures us, without the strongest reason for doing so. This is a very wise course to adopt, for it will prevent the cry getting abroad that property has been wantonly destroyed.

The extent of the ravages of this bee plague is greater than was supposed by most bee-keepers even, but the vigorous steps now taken cannot fail to have the effect of circumscribing it, if not exterminating it altogether, for a time at least. Of course the country cannot be kept free from it at all times owing to the independent nature of its origin in some instances.

The work of the Inspector will be very helpful in other ways in addition to the reduction of the disease. It will impart to very many a knowledge of the exact method of dealing with it themselves. This knowledge is being imparted by that most effective method, ocular demonstration, and in the presence of individuals who will be most eager pupils through the constraining influence of financial loss. For the small sum expended by the Government in the eradication of this disease, a rich harvest will be reaped in the form of the greatly increased development of this important industry.

"THE September number just to hand, and I must say it reflects great credit on the enterprise of the publishers." J. G. Brown, Manager Hope Farm, St. Jean Baptiste, Manitoba.

GEORGE CRAIG, Hinchforth Stock Farm, Manitoba, writes: "I am always pleased to get the *JOURNAL*. It is always full of valuable information. You are doing a good work, and I wish you every success."

"I AM glad to see that under the new management the *JOURNAL* still maintains its right to be classed as one of the best Agricultural Journals in the country, in fact second to none that I have seen or known." T. S. S. Sproule, Markdale, Ontario.

Barley Competition.

Owing to the demands on their time during the exhibition season, the judges on the above competition have not been able to complete their work. As soon as they finish the awards, we shall at once announce the results. Any competitors who have not yet sent in their sample and schedule should at once attend to it, so that they may receive the consideration of the judges.

Jottings.

Ontario Creameries' Association. At a recent meeting of the Board of the Ontario Creameries' Association it was decided to hold their next annual meeting at Berlin, during the month of January, 1891.

Ontario Poultry Association Show. The next show of the Ontario Poultry Association is to be held during the week beginning January 5th, 1891, at Hownanville, Ont. With the exception that Indian Game will be entered instead of Standard Game, the list remains the same as last year.

A Worthy Appointment Endorsed.—Just as we go to press we learn that the Hon. John Dryden has been re-elected by acclamation to represent his old constituency, South Ontario. We offer our warmest congratulations to the new Minister of Agriculture, knowing that in doing so we but echo the sentiments of every Canadian who considers the interests of our agriculture first above all others. Further comment is denied us until our next issue owing to the lateness in the month when this intelligence reached us.

Moultondale Stock Farm.—Mr. F. J. Ramsey, of Dunnville, Ont., offers for sale or rent, in this number, his stock farm consisting of 114 acres, of which 104 is cleared and the rest in timber. The number and merit of the outbuildings including large barn and sheds, poultry-house and piggery, are in keeping with the requirements of a good Ontario stock farm. The farm is well watered there being three wells and cistern and a windmill. The farm is near to Dunnville, a town of 2,000 population. Those seeking a stock farm will find much of interest to them in the advertisement appearing elsewhere.

Prize Farms.—At a recent meeting of the Agricultural and Arts Association, at which Messrs. Vance, Simmons, Rawlings, Sissons, Snell, Palmer, Legg, Dawson, Morgan, Rykert, and McPherson, were present, the judges on prize farms, Messrs. Holston and Donaldson, made the announcement of their decisions as follows: North York, Charles J. Brodie, Bethesda, gold medal. East Simcoe, John A. Swan, Penanguishene, silver medal. East Simcoe, Charles Rankin, Penanguishene, bronze medal. South Simcoe, W. F. Fraser, Bradford, silver medal. West Simcoe, Henry Parkhouse, Crown Hill, silver medal. West Durham, Thomas Pascoe, Solna, silver medal.

Exporter and Live Stock Agent.—Mr. E. Goodwin Prece, of Shrewsbury, England, having superior facilities for the purchasing of live stock, and being well informed as to the best herds and flocks of Britain, is especially well prepared to execute commissions for those unable or preferring not to make their selections in person. He makes the exceedingly reasonable offer of assisting foreign buyers in purchasing and shipping at one per cent. He is able to fill orders for Shires, Shorthorns, Herefords, Jerseys, Ayrshires, Kerries, in cattle; and Shropshires, Oxfords, Hampshires, Dorsets, Lincolns and Cotswolds in sheep; and Berkshires and Yorkshires in pigs. Mr. Prece during the past season has greatly strengthened his relations with many of our stockmen through the thorough satisfaction he has given to all his patrons.

Poisoned by Brine.—A French medical periodical, we learn from the *Mark Lane Express*, reports a case that has recently occurred, of twenty-six pigs being poisoned by salt brine. A veterinary was called to see these pigs, which the owner believed were suffering from poison. The feed of the previous evening had not been entirely consumed, and during the night four pigs had shown serious symptoms; they died on the following evening. The symptoms were of poisoning. The owner of the pigs received the refuse from the kitchens of adjoining barns. Soup was made from some pickled hadd, but it was so salt that it was all thrown into the swill tub, so that the swill was really a strong brine. Cases of this kind have been reported before, and even sheep, it is said, have been known to have been killed by such solutions.

Farmers' Institutes.—We have received Bulletin No. 4, Wisconsin Farmers' Institutes. It makes a book of 352 pages—a hard book on Agriculture, containing a verbatim report of the closing Institute of three days, short, pithy experience in all branches of farming, and the hundreds of questions are answered resulting in a general discussion upon dairying, horse-breeding, swine and sheep husbandry as given at sixty-six two-day Institutes held in the state last winter. This book is sent at cost price to encourage farmers to read, think, and band themselves together in similar meetings for mutual improvement and benefit. Wisconsin for twenty years has been holding farmers' meetings. Send 50 cents to W. H. Morrison, Madison, Wis., who is superintendent of the Farmers' Institute work of that state, and you will receive a volume that will bear reading and re-reading.

Smudging to Prevent Damage from Frost.—G. M. T., a correspondent of the *Manitoba Free Press*, has this to say in favor of smudging to prevent plants from the attacks of frost: Some fifty years ago when I was a lad, my father's orchard (a large one in the county of Hastings) was in full blossom on the eighteenth day of May, and it turned severely cold that day and a heavy frost followed for three nights. Everyone knew there would be frost before night came on, and supposed the apple "bloss had gone up," but my mother had heard her people say that in the early days on the Hudson river they had often saved their fruit crop by firing brush heaps in the bush about their orchards, and as there was abundance of rubbish and a few big pine-stumps conveniently situated about our orchard, it was an easy experiment to try, and we did try it every cold night, and

it turned out highly successful, for with the exception of a few trees our orchard was over-loaded, while neighbouring ones were entirely bare.

Merited Compliments. The *Chicago British-American* makes the following comment on the centre of our cheese industry: It may not be generally known that the little town of Ingersoll, Ont., with a population of 5,000, is the greatest cheese centre in America, but such is the case. In Chicago, Ingersoll cheese is sold in large quantities, and no brand is better known or more popular than the famous "Royal Paragon," manufactured by T. D. Millar. A representative of this paper visited the factory of Mr. Millar a few days ago and the process of manufacture and packing of cheese was explained to him by Mr. Millar. The "Royal Paragon" is a most appropriate name for Mr. Millar's cheese, as it has no superior in the American market to-day. It is packed in 2-lb. jars, hermetically sealed, and so can be preserved for years without taint. At the various cheese exhibitions throughout the world, including the Colonial and Indian Exhibition, London, 1886, that at Amsterdam in 1884, and every exhibition where Millar's "Paragon" has been exhibited, the medal has been awarded.

Interesting to Stock Dealers.—A decision was given by Judge Doyle in a case tried at Clinton Division Court sittings which, *The New Era* says, has very considerably surprised our cattle dealers. Some time ago, cattle dealer Baker bought from one Robert Brown a lamb, \$4.25, paying on account of such purchase \$1, and later, on the same day, a further sum of \$2. The lamb was not in a fit state to be butchered, and it was agreed that Brown should keep it at least for a month. Before Baker sent for the lamb it had died, but Brown concealed this fact until he had been paid the balance of his purchase money. Baker brought suit to recover the price of the lamb, but Judge Doyle held that the lamb was at his risk and not Brown's, that it had passed to Baker, and as a consequence Brown was entitled to his money. The butchers and drovers maintain that such is not the usage of the trade, but that before the seller is entitled to his unpaid purchase money he must deliver the cattle or sheep alive. The decision of Judge Doyle will make it necessary to have a distinct agreement that the seller in all cases shall produce the animal alive.

Domlnion Shorthorn Herd Book.—The fifth volume of this valuable work has reached our table. It contains the pedigrees of 1,872 bulls, and 2,516 cows, making the number of pedigrees 4,388, and a total of 8,182 bulls and 13,494 cows in the five volumes issued, or a grand total of 21,676 pedigrees. A valuable feature of Vol. V. is an index, compiled by the editor, Mr. Wade, giving the names of bulls, imported and American-bred, and their numbers, that are registered in the five volumes of the Dominion book, and the same elaborate tabulation is given the cows, home-bred and imported, that are registered in the volumes so far issued. This must have been a very laborious work for the secretary to undertake. We feel sure that the breeders will appreciate the index, as it is one that will be of great assistance for reference to any particular animal. The majority of the pedigrees in the ten volumes of the old Canada Shorthorn Herd Book, and of the four volumes of the British American, are now recorded in the five volumes of this work for reference. It represents laborious work and much trouble on the part of the editor, which the breeders will no doubt heartily appreciate. The chronological history of imported Shorthorns is continued by the editor, and brought down to the year 1880. The five volumes make a handsome series that would form a fitting adornment for any library.

Sound Advice.—A farmer near this town, who is too modest a man to allow us to mention his name, called in on Tuesday to say that he thought the *Chronicle* treats the agricultural problem correctly in advising farmers to branch out and try to produce something else besides the everlasting barley. This farmer says that three years ago he concluded the barley period was about over, and commenced raising hogs. This season, from the 25th of March to the 3rd of September, he sold thirty fat hogs, weighing 5,300, or an average of 180 pounds each. These brought him an average price of 50c. per pound live weight, less 98 cents on the lot, making a total of \$268.02. Five of the hogs were five months old when sold, fourteen were six months old, and eleven eight months old. These hogs were fed almost entirely on barley, crushed peas being used to top off with. Allowing for his family pork and what small fry he sold to neighbors, and throwing in labor, our farmer friend realized 92c. per bushel for the barley and peas fed, and he considers that he did it very easily too. He informs us that it is a fact that the Davies pork packing establishment in Toronto has to import its hogs from the west, so indifferent are Canadian farmers about breeding swine. There is a lesson in things like this; all farmers cannot go exclusively into hogs, but far more can than now do. —*Whitby Chronicle*.

Eggs for England.—Seeing that there is no probability of shipping eggs from Canada to the United States much longer, a kind-hearted Englishman has appeared in this city, backed by one of the London banks, for the purpose of opening up an export trade in eggs between Canada and Great Britain. We find the opinion prevalent that the exportation of eggs from Canada to England is an untried experiment, but this is erroneous, as some ten years ago a German or French packer arrived in this city, who understood how to pack for the English market, and he was the means of throwing the egg trade of this city into quite a flutter of excitement, owing to the perfect wonders he was going to perform. He sent forward a few shipments, which although not very large, were quite extensive enough to clean him out in about a couple of months or less. Since that time several other trial shipments have been sent across the Atlantic, but unfortunately they led to no satisfactory results. Still we do not wish to throw cold water on the endeavors of our English friend who feels like introducing Canadian eggs into the markets on the other side. It is understood that he has been authorized to draw on a certain London bank 30s. per case of 100 dozen, which means about 7½c. per dozen.—*Trade Bulletin*. We learn from the *Brockville Times* that a London provision merchant, Mr. Curry, shipped from Canada 175 cases of eggs which arrived in good condition, and sold readily, giving the best of satisfaction. We trust that these shipments may meet with every success.

Canada Company's Lands.—In this number this Company draws attention to the lands they have now awaiting sale. These may be purchased by way of lease for five or seven years, with or without purchase, or for sale cash down. Where the

lands are leased with right of purchase, a reasonable amount is required in advance. A lease is then granted with the right of purchase secured to the lessee at a sum equal to the price of the land, less the amount paid, and the rent charged is four per cent. on the unpaid amount. Under this class of lease the lessee can purchase the land and take his deed at any time on paying all arrears of rent and the amount named in the lease, notwithstanding the term may not have expired. The lessee has thus guaranteed to him the entire benefit of his improvements and increased value of the land he occupies, should he wish to purchase. But he may, if he pleases, refuse to call for the freehold; the option being completely with the lessee. In order to afford every assistance to industrious and provident settlers, the Canada Company will receive any sum, of twenty dollars and upwards, for which their lessee settlers may not have immediate want, on deposit—allowing interest at the rate of four per cent. per annum, for the same; but it is clearly understood, that the full amount, with interest accrued, in accordance with the receipt to be issued, shall at all times be at the disposal of the settler, without notice. For this purpose the Company have opened an account which is termed, "Settlers' Provident or Savings Bank Account,"—thus affording to the prudent settler every facility for accumulating sufficient money to purchase; and should bad harvest, or any other unforeseen misfortune visit him, he has always the amount deposited, with interest accrued, at his disposal to meet them. The advantages of this account are confined to the Company's actual lessee settlers.

Stock Notes.

THE imported Yorkshire Coach stallion, Premier (1138) is offered for sale in this issue, by Mr. Geo. Tweedy, Charlottetown, P.E. Island. See advertisement.

MESSRS. TORRANCE & BEATTIE have lately sold some fine Clyde horses to Mr. O. W. Parsel, Flushing, Michigan. Mr. Torrance is in the old country now, buying a stock of Clydes; he is expected home in October. Their stock of Canadian-bred Clydes, colts, and fillies, are doing well.

MR. GEO. G. STEWART, of Howick, Que., makes a change in his advertisement which should not escape our readers. Mr. Stewart this year brought over some of the best Clydesdales that are obtainable in the United Kingdom, and as he has unusual facilities for securing the very best types and highest prize-winners, he is prepared to dispose of any of the members of his stud at reasonably remunerative rates. See advertisement.

Cattle.

MR. WELLINGTON MUISINER, Riverside Stock Farm, Port Robinson, Ont., a breeder of Holstein-Friesian cattle of good dairy strains, places a card in our breeders' directory in this issue.

A number of Canadian dairy cows were sold by Sullivan & Co., of Liverpool, Eng., a short time ago, and as the attendance of farmers and dairymen was numerous, and the cows well thought of, prices ran up to £18, £20, and even £21 10s.

MR. JOHN SETTLE, of Dartmouth, U.S., offers for sale in this issue, a Holstein-Friesian bull calf. For particulars as to pedigree, etc., see advertisement. By an oversight in our last issue, in giving the price of this animal twenty-five dollars was inserted instead of seventy-five.

WM. STEWART, Jr., Menie Stock Yards, Menie P.O., Ont., inserts in this issue a breeders' card, in our directory, drawing attention to his stock of Ayrshire cattle and Berkshire pigs. Mr. Stewart had an exhibition at the Industrial collection of Ayrshires that would be hard to beat.

Four Holstein heifers are offered for \$600 by R. C. Hays, of Goderich, Ont., in this issue. They are all served by Royal Aaggie and, a bull bred of the well known Holstein breeder, T. J. Yeomans & Son, of Walworth, N.Y., with ancestors in the advanced registry. This is a chance worth looking up. See advertisement in this number.

MR. HARVEY, JR., of Darlington, Neb., purchased lately from Lord Tweedmouth, a Pride yearling Angus bull named Guinea 7576, by Cash 4558, and out of Pride of Ginsachan 4617. The *Farmer and Stockbreeder* states that the price was \$750, and further says, "that this bull was much admired at the Highland Society's show at Dundee, where he took the second prize in a large class."

MR. W. H. McNISH, of Lyn, Ont., gave us a call when on his way home from Collingwood, where he had just delivered thirteen head of Ayrshires to Mr. James Neil, of that place. This extensive sale brings his herd down to thirty head. His herd of Berkshires were paid a high compliment a short time ago. Mr. T. R. Proctor, of Utica, N.Y., bent on securing the best Berkshire that could be got in Canada, after visiting many of the leading herds, eventually placed his order with Mr. McNish. Improved Large Yorkshires, as well as Berkshires, are now being bred at this stock farm.

LORD BROUGHAM, of Carleton Hill, Penrith, held an important Shorthorn sale on the 5th ult. The best prices, we learn from the *Stockbreeder*, were: Warrior's Daughter, dam of the noted prize bull Royal Warrior, 539c. Eva Gwynne, one of the pair of heifers that took first prize in the dairy class against all comers at the Royal Show at Nottingham, sold for 502c. Rose of Oxford 15th, sold for 623c., and Duchess Lucy 7th for 372c. 599c. was paid for Rosebud 10th; 602c. was paid for Rose of Oxford 5th. The cows and heifers averaged £37 15s., and the bulls £49 4s. The highest-priced bull was Denmark's Duke, for which Mr. Owen, of Ellesmere, Shropshire, paid 712c.

An auction sale of Shorthorn cattle and Berkshire pigs belonging to Mr. George Graham, Denfield P.O., Ont., is advertised in our columns, to take place on Wednesday, October 22nd, at Manor Farm. The sire of most of the cows, heifers, and bulls to be offered are by the richly-bred bulls Elvina's Oxford

Stock Notes.—Continued.

=1762=, 7th Earl of Darlington =3147=, Marquis of Kirklevington (imp.) =1274=, Wild Eyes L. Grand (imp.) 67993, and the bull now in use is Duke of Salisbury (imp.) =4100= got by Grand Duke Thirty-Seventh (43307). These are a grand lot of well-bred bulls, so that those seeking Shorthorns of good serviceable strains should make a note of this sale.

The herd of Polled Aberdeen Angus cattle, belonging to the representative of the late William McComber, of East Skene, Aberdeenshire, was sold by auction on the 11th of Sept. From the *Farmer and Stockbreeder* we learn that the bidding was not brisk as there were several other sales of polled stock held at the same time. The dam of the champion Scot heifer at Birmingham and London (Scotch Lassie), only made 219s. to a local buyer. The highest priced female at the sale was the four-year-old Millicent of Easter Skene, descended from the noted Grizzle family, which realized 445s. Eight cows averaged \$115, two two-year-old heifers, \$130; yearling heifers, \$115; heifer calves, \$100; bull calves, \$125; and aged bulls, \$180.

Mr. JOSEPH REDMOND, of Peterborough, Ont., has decided to sell by public auction at his farm on Thursday, November 20th, his whole herd of imported Shorthorns, including animals of all ages. The herd has been enriched from time to time by valuable importations from the famous Scottish herds of Messrs. S. Campbell, J. Bruce, and A. Cruikshank, so that it now contains good representatives of the best strains of Scotch cattle, such as the Minnies, Wimples, Maybirds, and others. The Scotch bull Goldfinder, imported from the herd of Mr. Bruce, Aberdeenshire, Scotland, has stood at the head of this herd for some time, and from him a number of grand bull calves and heifers have been bred. Recently, a Cruikshank bull has been used. There will also be offered at auction a number of prize-winning Clydesdales. For further particulars see the advertisement of this sale in this number.

An exceedingly valuable lot of Herefords are to be disposed of by Messrs. W. G. Preece & Son, of Shrewsbury, England. The animals to be sold comprise the whole of the noted Berwick Grove Herd, consisting of 100 bulls, cows and heifers, bred by the well known breeder, Mr. Richard Jones. The foundation stock for this herd was secured many years ago from the then famous herd of Lord Berwick, and later additions to it have been made from the herds of Messrs. Green, Rogers, Tudge, and Evans. Amongst the late bulls used were Conqueror 3612, Merry Monarch 5466, and recently the renowned Lord Wilton, The Grove 3rd, and a couple of Horace bred bulls. The Shropshires numbering 150 ewes, are all registered and are asserted to be of magnificent type, symmetry and scale. The sale takes place at Berwick Grove, Attingham, Shrewsbury, England, on Friday, October 17th, 1890. Messrs. Preece & Son, are prepared to execute commissions from foreigners.

MESSRS. Wm. STEWART & SONS, Willow Grove Stock Farm, Lucas, Ont., place with us in this issue a card in our breeders' directory, stating that they are breeding and importing Aberdeen Angus cattle. Mr. Stewart showed at London a number of excellent typical animals of this breed. Their stock bull is one of good merit, but is likely to be superseded shortly by a very superior young bull, Lord Forest, bred by Hon. M. H. Cochrane. Messrs. Stewart obtained their foundation stock from the Geary Bros. and have been breeding and importing these cattle for the last twenty years. On his two-year-old bull, President of Bli Bloss 4871, sired by Darnley of Smeaton, and out of Maid of Coulter, he secured second prize at London Western this year. He is a level, smooth bull. The youngster, Lord Forest, was first at Toronto Industrial, and first again at London this year. He is sired by Lord Advocate 6654, dam, Lady Ida Forbes. He is one of the most mellow handlers, and as even and well developed calf that we ever laid eyes or hands upon. Messrs. Stewart have done extraordinary well from the start, and we trust the merits of their cattle may secure them extensive patronage.

GEO. BALLACHEY, of Brantford, Ont., holds an important dispersion sale, on Tuesday, Oct. 14th, 1890. The herd of Shorthorns to be offered are of more than a passing notice. At the head of the herd stands a Bow Park bull, Baron Knightly 8th =12322=, and most of the young stock are from him. This bull was sired by the noted Ingram's Chief 81433, and his dam was Knightly Duchess 12th. It is stated in the announcement that the cattle are a good thrifty lot, selected from the most noted milking and beefing strains. The females to be disposed of include Lady Chesterfield 7th, =12036=, by Wild Eyes le Grand 6733; Myrtle =10183=, by 2nd Baron Knightly =1521=; Lady Mary =3506=, by Lord Languish =780= a bull bred by Hon. Ezra Cornell, Ithaca, New York, and got by Fitz Oxford 8130 from Levenna Languish, by Bean of Oxford; gr. dam Lady Anguish, by 3rd Lord Oxford, the sire of the Duchess of Geneva, that sold for \$40,600. Mary Scott =15644= another of the cows was sired by Loyalist =1751= that had for a gr. sire, Royal Barmpton, the sire of Watt's famous Barmpton Hero =345=. The Shropshires include ewes imported by John Dryden, M.P.P., and their registered progeny, while the Berkshires are descended from the stock of Prof. Shaw and Messrs. Snell, of Edmonton. See advertisement.

An important Shorthorn sale, conducted by Messrs. Thornton & Co., was held at Inglewood, the house of the celebrated herd owned by Mr. Robert Thomson, an English breeder of note. The *London Live Stock Journal* states that there was an enormous attendance, not only of local agriculturists, but of breeders and agents from a distance. Commenting further, the above periodical says: "The sale was then proceeded with, bidding being very spirited. Lot 4, Shapely, eleven-year-old, started at 209s., and was quickly run up to 549s., when she was knocked down to Mr. Smith. Lively bidding was also met with when Lot 7 was put up, and at 509s. she passed to Mr. Willis; her calf of April 11th, by Beau Cambrian, was started at 109s., and was rapidly run up by Mr. Graham and Mr. Willis to 909s., when amid applause Mr. Graham was declared the buyer. Mr. Thornton announced that Mr. Thompson had intended sending her to the Royal at Doncaster next year, had he not decided to hold this sale. Home Beauty was started at 509s., and was eagerly competed for up to 1509s. Inglewood Gem started at 509s., and principally between Mr. Leadbitter and Mr. Lively

Advertisements.

To Advertisers.—Advertisements of an appropriate nature will be inserted in the JOURNAL at the following rates: For a single insertion, 18c. per line, nonpareil (12 lines make one inch); for three months, 15c. per line each insertion; for six months, 12c. per line each insertion; for one year, 10c. per line each insertion. Cards in Breeders' Directory, not exceeding five lines—\$1.50 per line per annum. Copy of advertisements should reach us not later than the 25th of each month (earlier, if possible). If later, it may be in time for insertion, but often too late for proper classification. Transient advertisements payable in advance. No advertisement inserted for less than 75c. Contracts broken by insolvency or otherwise will revert to the casual rate of 18c. per line each insertion. Advertisers desiring to obtain extra copies of the JOURNAL may do so at the following rates: Per dozen, \$1.00; per 100, \$7.50 (in lots of not less than 25). A reasonable number of copies will be sent at these rates to any address supplied by an advertiser, with the advertiser's own advertisement marked, and a notice on the wrapper calling attention to it. In this way the advertiser will be saved the trouble and expense of addressing and mailing.

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TELEGRAPH, "FODDER," GLASGOW.

Stock Notes.—Continued.

the price was carried by 59s. and 109s. bids to 1559s., when the cow fell to the former. It should be remarked that, in addition to the many successes enumerated in the catalogue as won by this cow, she was second to Molly Millicent at Penrith last Friday. Windsor's Beauty, which won last year the second prize at Windsor, first at Sunderland, Tynemouth, Highland Society, Yorkshire, Penrith, Kendal, this year second at Rochester, first in Wiltshire, Durham, Harrogate, and second at Chelmsford, was put in motion at 1509s. Lord Bective's agent, Sir Wilfrid Lawson, and Mr. Graham bid rapidly, chiefly twenties, and amid applause Mr. Graham was declared the buyer at 309s. Merry Millicent was eagerly competed for, running rapidly from 509s. to 1609s., Mr. Starkie being the last bidder. This heifer was second at Rochester, Shropshire, Durham, and highly commended at Plymouth. Godiva Butterfly was knocked down to Mr. Brierley at 1009s. Mariana Millicent was started at 209s. and went at 1209s., to Sir Wm. Salt. The bulls did not make very high prices, but were considered to be fairly sold. The cows and heifers brought a total of £2,447 6s., being an average of £79 15s. 2d. The total for fourteen bulls was £614 5s., being an average of £43 17s.

As there is to be a great public sale held at Moreton Lodge, the property of Mr. F. W. Stone, on the 8th and 9th of October, 1890, it will not be out of place to give a short review of the herds and flocks that have been bred there as given in the newly issued catalogue. "The Shorthorn herd, founded in 1853, was added to in 1854 and 1855 by importations from Col. Kingscote, Mr. Jonas Webb, of Babraham, Mr. Bolden, Mr. Bowly, of Siddington, Mr. Smythe the Owen and Mr. Ambler. Eugenie, from the last herd of Mr. Ambler, produced Third Grand Duke (17693), who was the best two-year-old bull at the United States Exhibition at Chicago in 1859, and subsequently at the Provincial Exhibition in 1861 took the 1st prize as a four-year-old, the Diploma as the best Durham bull and also as one of the first-prize herd and the sweepstakes as the best bull of any age or breed. This family is represented by the Grand Dukes of York. Third Grand Duke was the sire of several 1st prize winners at the Provincial Exhibitions, and notably of Grand Duke of Moreton 5732, a frequent winner, and sire of winners out of Maid of Guelph and of Sanspareil 6th. Maid of Guelph was the 2nd prize cow at the Provincial in 1868, the only time she was ever exhibited, and weighed when killed 2005 lbs. Fresh importations have been made from time to time of Bates topped Seraphinas from Mr. Roberts and Lord Sudeley, from which springs the Seraph bulls, of the old established Craggs, J. and Queen families from Sir G. Phillips, the Tellurias from Mr. Barber, and Sultanas from Mr. Abbott, whilst in 1875 was purchased from the Earl of Bective the very fashionably bred Bates bull, Baron Berkeley (36158) 22010, of the Barrington family, who was largely used by Mr. Stone until he was killed in 1888 at the age of 13 years." Starting in 1860 with the purchase of the following females, among others Vesta, Princess, and Hebe, a first prize winner at the R. A. S., and the purchase of several noted bulls the foundation of the Hereford Herd was well and truly laid. Sir Charles 543 (3434), a graceful bull bred by Mr. Stone, attained an unequalled fame, as he is the only American-bred bull that appears in the English Herd book. After a remarkable record of prize winnings, in both Canada and United States, he was killed at Chicago, and though his live weight was 2850 lbs., he dressed 73 lbs. to the cwt. Of the Gracefuls there are quite a number in this herd. Other families and strains having representatives in this herd are the Beauty's, Blossoms, Governess, and many others of equal note. Descendants from such famous bulls as Horace 2493 (3877); Grateful 2572 (4622), that beat Lord Wilton as the best bull of the Hereford breed exhibited at the R.A.S., at the Kelburn International meeting; Tredegar (4178), a far-famed show bull, and a host of others equally high-bred and renowned. The Cotswold flock was established in 1854, by direct importations, and has been added to by later purchases from Messrs. Jacobs, Garne, Lane, Swanwick and others. The foundation Southdowns were imported from such flocks as that of Mr. Jonas Webb, with later additions from those of Lord Walsingham, Messrs. Emery, Lord Braybrooke and others.

Sheep.

The first prize Leicester shearing ram at the Perth annual sale and show was sold afterwards for \$190.

At the Perth Blackfaced Ram Society sales, held Sept. 11th, there were over 1,200 rams and ram lambs consigned. The highest price was \$400 for a shearing that won 4th prize at the Dundee Highland Show.

At the Lothian ram sales, held Sept. 11th, over six hundred rams were sold. The best price obtained for a Leicester was \$200, the highest given for a Shrop was \$105, and the top price for the Oxfords was \$80.

MESSRS. JOHN THORNTON & Co., of England, conducted a dispersion sale for Mr. G. C. Gibson, an English breeder of Southdowns, at which the best two rams made \$55 and \$50, the rest selling for from \$20 to \$35 each.

At a sale of Lincoln shearing rams, held by Messrs. J. R. & R. R. Kirkham, of Biscathorpe House, England, the highest price realized was 100 guineas (\$500) for a ram sired by Ashby. The total average for about 100 animals was about \$75 per head.

The Blackfaced or Highland sheep have been bringing high prices this year. Last year the sum of \$450 was given for a ram, but this year at the Lothian Ram Society sale, the unparalleled price of \$500 was paid for a ram from the Low Ploughland flock.

The annual sale of Leicester shearing rams, bred by Mr. Robert Fisher, of Leconfield, resulted, as the *Agricultural Gazette* states, in sixty grand upstanding shearlines selling for an average of \$50 each. The highest priced one sold for \$105.

Mr. GEO. LEWIS, of Scalop, England, states in the *London Live Stock Journal*, that the sales of Shropshire sheep this year have resulted in ten shearing rams belonging to different breeders realizing the handsome sum total of £1527 15s., "showing," he says, "that for rent paying there is no sheep like the Shropshire."

Stock Notes.—Continued.

At the Hempton Green Fair (Eng.), sixty Cotswold shearing rams made from \$30 to \$100.

MR. W. G. PETTIT, of Freeman, Ontario, has lately made several important purchases of pure-bred Shropas. At the recent Industrial he bought of Messrs. John Miller & Sons, of Brougham, the first-prize ram lamb, of recent importation, and also four imported ewe lambs. They are an excellent lot and will be a good addition to the flock of twenty-five Shrops that Mr. Pettit now has on hand.

MESSRS. TAZEWELL & HULTON, of Port Credit and Spring field-on-the-credit, Ont., place with us in this issue a new advertisement, drawing attention to the fact that they are breeding somewhat extensively Dorset Horned sheep, and York pigs. At the late exhibitions this firm was very successful. The Dorsets are rapidly advancing in favor. Our readers will do well to notice their advertisement.

MR. JOHN MILLER, of Markham, Ont., offers for sale, in this issue, a number of Southdown rams, bred from stock imported from the noted flocks of Mr. Jonas Webb and the Prince of Wales. He also desires to dispose of some Show horn bulls and heifers, that have been sired by the Scotch-bred bull, Vice Consul—4132—, imported by Messrs. John Miller & Sons, from the herd of Amos Cruikshank, of Sitty on. Notice advertisement.

At the annual sale of Mr. A. P. Muntz, well known as an English breeder of high class Shropshires, held Sept. 9th, the highest price paid was \$140 for the ram Wonderful. Mr. D. Butlar, at Corston, Coupar-Angus, also held a sale of Shropshires on the 12th Sept. The ram Cor or True Blue was the lot for the season to Mr. Menton for \$225, the other stock ram, Lord of the... was sold for \$150. The highest record shearing sold for \$135. The total average was \$50.

WM. TREDWAY, Port Union, Ont., writes under date of Sept. 23rd: "Among the numerous replies that I received from my advertisement in your JOURNAL last month, was a postal card from Windsor, N.S. This I mislaid, and as I have forgotten the gentleman's name, kindly let him know through the JOURNAL that I have sold the shearing ram, most of the ram lambs, and all the females I dare part with this fall. I, however, still hold for sale several ram lambs. For your satisfaction, Mr. Editor, I may say, with the arrival of the JOURNAL came answers to my advertisement, and still they come, one this morning from Humeston, Iowa, showing that your columns are appreciated in Uncle Sam's territory."

Shropshires are selling remarkably well this year in England at the fall ram sales. The Thorpe Hall Shropshires averaged about \$165 per head. The winner at this year's Royal Show at Plymouth brought \$750. Among the most important of Shropshire sales held this year, was that of Mrs. Barr, held at Oldstone Hall last month. A shearing ram sired by the noted Duke of Norfolk, brought \$375, and another son of the same sire sold for \$550. A breeder paid for the hire of a shearing ram sired by Adamant, \$575. These were the highest prices made. The forty-one rams made the extraordinary average of \$155. At the annual sale of Mr. Bowen-Jones' flock, the rams sold average \$60 each, and the ewes \$25. The sale of Messrs. Bach & Son was well attended, and the average realized for rams was \$50, and shearing ewes \$30 to \$10.

A Merino ram, Hero Prince, has sold for the extraordinary price of 700 guineas (\$2,500), at one of the ram sales held at Sydney, New South Wales. At the sale, it is stated, that in less than three minutes from the start of the bidding he fell to the bid of Mr. W. H. Watt, of Howlong Station. Another, also bred in Australia, Pilgrim III., knocked down for 450 guineas (\$2,150), to the bid of Hon. H. E. Sutton. The Mark Lane calculates some of the prices realized by Merino stud rams at various sales there. In 1883, at Queensland, \$1,325 was the highest price that year; in 1884, the highest for a ram was \$985; in 1885, in Tasmania, \$475 was given for a ram; in 1886, \$215 was the highest price paid; in 1887 a ram sold for \$605 in Tasmania; in 1888, \$660 was the best price paid; in 1889, the highest price reached was \$885, and another one sold for \$645; while in 1890, besides the two above mentioned, another one sold for \$1,600. The Merinos are enjoying a boom there without a doubt.

JAMES TOLTON, of Walkerton, Ont., brought out this year a very superior lot of Oxford Down, and has carried all before him at recent exhibitions. It is interesting to read in one of our exchanges the following account of their prize winnings in Great Britain: The flock numbers 44 head in all, consisting of 1 shearing ram, 3 ram lambs, 36 shearing ewes, and 4 ewe lambs. Shearing ram bred by A. Brassey, Esq., winner of first prize at the Royal Show, Plymouth, also at Oxford, and wherever shown; got by Young Howard (544), sire of ram, Young Bradwell (538). Six of the shearing ewes consist of the first and second prize pens at the Royal Oxford and Bath and West of England shows. First prize pen bred by A. Brassey. Two of them got by same ram as the shearing ram, and the third by Sir John (460), sire of dam, a ram of Mr. Druce's breeding. Second prize pen bred by George Adams, Pidnell, Farrington, Berks, sire Royal Arch (454), sire of dams Fyfield Duke (310). These ewes are all prize winners wherever shown. The remaining 30 shearing ewes are just in breeding condition, being imported for that purpose, all bred by George Adams. Two of the ram lambs were bred by A. Brassey, one of them being in the first prize pen at Oxford. The third was selected from Geo. Adams' flock out of a grand lot of 300 ram lambs. The ewe lambs were also bred by George Adams, and were selected from the second prize and reserve number at the Oxford Show, there being no prize for ewe lambs at the Royal Society Show. The flocks of A. Brassey, Esq., and Mr. Geo. Adams have won the principal prizes this season, the former taking two first prizes, one second, and highly commended at the Royal Show, the latter first, second, third, and highly commended at the same show.

HENRY ARKELL, of Farnham Farm, Arkell, Ont., reports having sold out all his show of Oxford Down sheep. Amongst others he sold to George MacKerrow, Sussex, Wis., one three-year-old ram, one yearling ram, three two-year-old ewes and four yearling ewes, one ewe lamb and two ram lambs. Mr.

Oak Hall

For the month of OCTOBER we are showing SPECIAL VALUE IN Men's and Boys Clothing.

Visitors to Toronto should not fail to visit our Store

Men's Suits in all the latest styles. Our Best two and three piece suits are the nobbiest in the city.

OAK HALL,

The Great One Price Clothing House, 115 to 121 King St. E., Toronto. RUTHERFORD, MANAGER.

FARMS JOS. POLLARD, JR. LANDS

FOR SALE The Imported Yorkshire Coaching Stallion, "PREMIER" (1138). He is a rich bay with black points; 7 years old; sixteen and a quarter hands high, and weighs 1300 lbs. He was shown six times in England and gained five first and one second prize. He is perfectly sound and a fine foal getter. Also well bred Shire stallions. For particulars and price apply to GEO. TWEEDY, Charlottetown, P.E. Island.

BROOKSIDE FARM, New Glasgow, Pictou Co., N.S. Standard-Bred Trotters, 26/1770 GATTEE-CLUB JERSEYS.

QUEEN BEES! ITALIANS

	KACH	PER THINEZ	PER 1/2 LOZ
Virgin Queen, ...	\$ 40	\$1 00	\$1 75
Untested.. .. .	1 00	2 75	5 00
Tested..... .	1 50	3 75	7 00
Select Testod	2 00	6 00	10 00

R. F. HOLTERMANN, Romney, Kent Co., Ont. No other paper published in Canada or out of it gives the farmer such value for his money as The Live Stock Journal.

Stock Notes.—Continued.

MacKerrow purchased his show lot last year from Mr. Arkell, and was very successful, being a very large exhibitor. Sales have been made also to Mr. Privett, of Greensburg, Indiana, who has bought of Mr. Arkell for the last ten years, five ram lambs, and one ewe lamb. Mr. Privett attends all the principal fairs in the Southern and Western States. Further sales were made to Aaron Bardwell, Fargo, N.Y., three ram lambs. Through Mr. James Main, Boyne, Mr. Arkell has imported two very fine Oxford Down ram lambs; he is well pleased with Mr. Main's selection, they are very fine animals. Mr. Arkell has also sold the following Berkshires: one boar to Robert Douglas, Aberfoyle, Ont.; one boar and sow to Robert B. Elliott, Port Huron, Mich., U.S. He reports the trade not so brisk as last year. His Berkshires, are all doing well.

MR. JAMES MAIN, of Boyne, Ont., has imported a grand collection of Cotswolds, Oxford Downs, and Berkshires. We take from an exchange the following commentary on the winnings of this importation in Great Britain: "James Main, Boyne, Ont., has an importation of 30 Cotswolds, 2 Oxford Downs, and 13 pigs. Of the latter 9 are of the Improved Yorkshire breed and 4 are Berkshires. Among the sheep are: Second prize shearing Cotswold ram, first and second prize ram lambs, first and second shearing ewes at the Royal Show this season, also first prize ewe lambs at Oxfordshire Show. There are several prize winners among the pigs, including first prize and champion Berkshire boar over 1 year, second and third prize Berkshire sows, and of Yorkshires, boar under 6 months, second prize winner, second and third prize sows under 6 months, and breeding so highly commended. The Cotswolds were bought as follows: Ten head—8 ewes and 2 rams—from Robert Jacobs, Cygnet Hall, Oxfordshire, 4 yearling ewes and 1 shearing ram from Thos. Gillette, Oxon; 7 ewe lambs from Mr. Gillette; 2 Oxford Down rams from John Jacobs; Berkshire boars from Mr. Murton, Shrewsbury. Mr. Main's stock is all of very choice quality, and will doubtless take a prominent place in the Canadian show-yards." This prophecy has been amply verified.

Swine.

T. L. SALTER, Greenbank, Ont., writes: My stock of Improved Berkshires are doing exceedingly well this fall, and business is very brisk. Some of my late important sales are as follows: To Dennis Howkins, Woodville, Ont., one imported breeding sow, and two home-bred sows; to C. T. Garbutt, Claremont, Ont., two boars and sow; to Robert Graham, Fenelon Falls, Ont., one boar; to William Cornish, Little Britain, Ont., one large boar; To E. Acton, Victoria Corners, Ont., one sow; to J. C. King, Uxbridge, Ont., one sow in farrow; to W. Salter, Marsh Hill, Ont., one sow; to W. Wilkinson, Sainfield, Ont., one sow. Also several others, to purchasers nearer home.

C. R. DUCKER, Chesterfield, Ont., writes: "My Berkshires are doing fine. I have the best herd now that I have ever had. I have just purchased from Mr. C. T. Garbutt, Claremont, Ont., Peter the Great, one of the best Berkshire boars in Ontario, as he has won twelve first prizes at and around Toronto. He is bred from imported sire and dam. Also two sows from Mr. Garbutt, both from imported sires and dams, none of them related; so with these, and four sows of choice quality that I had before, two of which has just farrowed, and two more to farrow inside of one month, I will soon have a number of choice young pigs. I keep always two boars, not related. I have more demand than ever for good Berkshires, and of hear less demand for Improved Yorkshires and other white breeds."

MR. PHILLO L. MILLS, of Ruddington Hall, Nottingham, Eng., places with us in this issue an advertisement calling attention to his herd of Berkshire and Yorkshire pigs. In the October, 1889, number of the London Live Stock Journal, we noticed the following, which we reproduce, that our readers may form an opinion as to the quality of the stock Mr. Mills has to offer: "Mr. Mills has thus gone to most of the great breeders for his stock, and he has succeeded in making a collection which, with care and energy on the part of the manager of the piggeries, ought to produce some of the best show pigs in the country. Mr. Mills rightly says that 'no large farmers should be without the large Yorkshire breed, flourishing, as they do, on inferior corn and waste unfit for other food, or, as we might perhaps put it, 'unfit for other stock.' The first pedigree Berkshire boar used in the herd was Hercules II., bred by Mr. A. S. Gibson, of Bulwell, a breeder of well-known high-class Berkshires. Later on Mr. Mills added another of Mr. Gibson's boars, Grandmaster No. 271, which was bred by Mr. Stuart's executors. Grandmaster, however, came of a first-rate pedigree, and among his ancestors were very fine pigs, bred by Col. Kingscote, Mr. N. Benjafield, and Mr. Hewer. Later on a Girencaster sow was added; next, the boar Pagan No. 655, from Mr. Gibson, an animal with a choice pedigree, combining the blood of Messrs. Stuart, Gibson, Benjafield, Swanwick, Heber Humphrey, Hewer, and others. Then came Vashii III., by Pagan, grand-sire Grandmaster, granddam Vashii No. 602; and Storm King, bred by Mr. Pitman King, of Wallingford. This is a handsome young boar, which we preferred at the moment to Pagan, which appeared to be too fat. We also admired Vashii and others of her family. Indeed, as a whole, the Berkshires were a more level lot than the Yorkshires."

BOYS FOR FARM HELP!

The Managers of DR. BARNARDO'S HOMES desire to obtain good situations with farmers throughout the country for the boys they are sending out from time to time from their London Homes. There are at present over 3,000 children in these Homes, receiving an industrial training and education, to fit them for positions of usefulness in life, and those who are sent to Canada, will be selected with the utmost care with a view to their moral and physical suitability for Canadian farm life. Farmers requiring such help are invited to apply to MR. ALFRED B. OWEN, Agent Dr. Barnardo's Homes, 214 Farley Avenue, Toronto.

CATTLE, SHEEP, SWINE.

Holstein-Friesian Heifers for Sale.

600 will buy four of the finest and best bred Heifers in Canada.

All about two years old and served to "Royal Aaggie 2nd," bred by T. G. Yeomans & Son, Walworth, N.Y., from sires and dams in the advanced registry.

Apply to R. C. HAYS, Goderich, Ont.

FOR SALE OR EXCHANGE. The Holstein-Friesian Bull calf, Cole Harbor, 26 months old. Ram Annabelle No. 457, A. R. A. No. 1. Here Book. Sire of the No. 100 A. R. A. No. 1. Here Book. Both dam and sire imported from Holland by J. C. Moore, Toronto, N.S. The calf is registered in the American Branch, H. Merd Book. Will exchange for registered Holstein or other good strains or sell for seventy-five dollars cash.

Grand Pedigree Herefords AND SHROPSHIRE.

SALE OF THE VALUABLE BERWICK GROVE HERD

100 BULLS, COWS AND HEIFERS, and 150 Flock Book Shropshire Ewes, at Berwick Grove, Attingham, Shrewsbury, England.

FRIDAY, OCTOBER 17th, 1890, by order of the noted breeder, Mr. Richard Jones.

The herd was 40 years ago based upon the best blood of the late Lord Berwick, and the veteran, John Hewer, and has been perpetuated by that of J. B. Green, A. Rogers, T. Tudge, and F. Evans. Amongst its sires having been Severn, 1382; Governor, 464; Abd-el-Kader, 1357; Above All, 2910; Triumph, 2836; Viceroys, 9539; Zealons, 2147; Magnet, 4754; Conqueror, 3612; Merry Monarch, 5466; and more immediately "The Lord Walton," "The Grove 3rd," and "Horace" bred bulls, Bredwardine, 5233; and Adrian, 13557.

The herd combines the finest pedigree, with rare merit and the best breeding properties. The Shropshire ewes are of guaranteed flock book pedigree and magnificent type, symmetry, and scale.

Foreign commissions executed by and catalogues may be had of W. G. PREECE & SON, Auctioneers, 74/86 Shrewsbury, England.

PURE BRED LICESTERS FOR SALE.

16 Ram and Ewe Lambs at \$10 each. 1 Stock Ram 3 years old \$20.

Lambs bred from a prize Ram at Hamilton Show last year. J. M. Vankearan, Byng, Ont.

SOUTHDOWN RAMS FOR SALE.

Bred from imported Webb and Prince of Wales stock. Also Young Shorthorn Bulls and Heifers mostly got by Vice-Count 4132. Address, JOHN MILLER, Markham, P.O., Ont.

Shorthorn Bulls.

1 Bull, aged 5 years; 1 Bull, aged 19 months; 1 Bull, aged 14 months; 1 Bull, aged 12 months. All of Dom. S. H. 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.

Eastwood Herd and Flock.

Some excellent Shorthorn heifers, Bow Park Stock, Imported Shropshire Sheep. Registered Rams and Bulls cheap. Address, T. C. PATTESON, Postmaster, Toronto.

N. B.—Eastwood is next station east of Woodstock on G.W.R.

Recorded Shropshires For Sale.

One Shearling Ram—"The Conqueror (18797)." 735 Lamb and a few breeding ewes. Must be sold for want of room.

WM. TREDWAY, Port Union.



BROWN BROS.,

SPRINGVILLE, ONT.

BREEDERS OF

SHROPSHIRE DOWN SHEEP

AND BERKSHIRE SWINE.

We have on hand and for sale young animals, male and female, which have been bred from carefully selected stock. Our prices will be found reasonable. Write or come and see.

Station, Peterboro' C.P.R. and G.T.R.

LORRIDGE FARM SOUTHDOWN SHEEP.

Flock first established 1857. Commenced exhibiting 1867. Since then have taken over 1,200 prizes, including a large number of medals and diplomas.

Imported Rams used only. Stock for Sale.

ROBERT MARSH, PROPRIETOR, Richmond Hill, Ont.



SUSSEX, 56625.

Maple Shade Shropshires,

OWNED BY—

JOHN DRYDEN, Brooklin, Ont.

FOR SALE—A few Shearling Rams and Ewes, and an Opportunity for Selection from Seventy Choice Lambs. Also a Select Bunch of Shorthorn Bulls and Heifers.

TERMS MODERATE.—Call or write. 13/34

IMPORTED AND CANADIAN-BRED SHROPSHIRE SHEEP FOR SALE, also Imported Clyde Sheep. All registered pedigrees. Agent for Dana's Sheep and Cattle labels. JOHN DUNKIN, Brucefield, Ont.

FOR SALE.—12 Head of Short Horns, 20 Leicester and South Down, Ram Lamb and about 30 Berkshire Pigs. Send for prices. 28/644 EDWARD JEFFES, Bond Head.



REGISTERED SHROPSHIRE, REGISTERED MEDIUM BERKSHIRE, REGISTERED DORSET SHEEP.

Registered Shetland Ponies and Jersey Stock. ALL AGES.

Joseph Stratford, Brantford, Canada.

STOCK SUPERIOR. PRICES MODERATE.

References: Bank British North America, Brantford Mercantile Agency or Wholesale Merchant



Tazewell & Hector, Importers and Breeders of Dorset Horned Sheep and Improved Yorkshire Pigs.

JNO. TAZEWELL, Indian Village Farm, Port Credit, Ont. Address: 24/1119 HECTOR, The Cottage, Springfield on the Credit, Ont. Stations Port Credit on G.T.R. and Streetsville on C.P.R.

Shropshire Ram Lambs for Sale.

Bred from Imported Stock, a shearling and one 2 year-old (Stock Ram). All good types. 28/816

F. J. RAMSEY, Dunns Hill, Haldimand Co., Ont.

IMPORTANT SALES.

LEAVING THE FARM

The undersigned will sell by Auction, on October 14th, 1890 all his Shorthorns, Shropshires, Berkshires, and Horses, Implements and Growing Grain, etc., etc.

Send for Catalogue now ready. Trains stop at farm on day of sale.

GEO. BALLACHEY

Brantford, Ont.

MOULTONDALE STOCK FARM,

1 1/2 miles East of Dunnsville, Haldimand Co.,

FOR SALE OR RENT.

114 acres good brick house and out-buildings, etc. Ap. by particulars to F. J. RAMSEY, Dunnsville, Ont.

AUCTION SALE

Of Shorthorn Cattle, Purebred Berkshire Pig, 10 Horses, and Farm Implements, at Manor Farm, Lot 24, Concession 16, (1/2 mile east of Denfield, L. H. & B. Ry.) on

Wednesday, OCTOBER 22nd, 1890,

At 11 o'clock, a.m. 26 Cows and Heifers, 7 Bulls, and a few grades, all sired by the most fashionable-bred Bulls: Elymas Oxford - 1702; 7th Earl of Darlington - 3147; Marquis of Kirklevington (imp.) - 1274; Wild Eyes Le Grand (imp.) - 6797; Imported Duke of Salisbury - 4100; now at head of herd. A number of pure bred Berkshire Pigs, by Marner 1902, 10 horses, and a full outfit of farm implements. The above cattle are all registered in the Dominion S. H. H. B.

Terms.—\$100 cash, 12 months credit, 6 per cent off for cash on credit accounts. Parties will be met at Denfield station on day of sale. Lunch 1/2 noon.

27 Catalogues now ready. GEO. GRAHAM, Denfield, P.O.

IMPORTANT AUCTION SALE OF IMPORTED PURE-BRED DURHAM CATTLE.

Owing to my advanced years and wishing to retire from stock-raising and farming generally, I have decided to sell by Public Auction on my Stock Farm, "Elm Grove," Ontario, four miles from Peterborough, on Thursday, November 20th, my entire herd of imported pure-bred Shorthorns and their offspring, including animals bred by such breeders as S. Campbell, J. Bruce, and A. Cruikshank, Aberdeen, Scotland; such strains as Imp. Minnie, Imp. Wimples, Imp. Columbine, Imp. Princesses, Imp. Pansies, and Imp. Maybuds and their daughters. Also imported and home-bred bulls and heifers. A grand lot from Silver Medal Bull, owned by me; and also some from Imp. Goldfinder, bred by J. Bruce. The bull I have been lately using is a well-bred Cruikshank. Also one five-year-old Clyde mare, and a fall colt rising two years old, from the first prize Provincial Exhibition show mare that took three first prizes at Toronto Industrial Exhibition; and other first-class Clyde mares and young horses.

TERMS OF SALE.—Twelve months credit on approved notes. A rebate of one-half the freight will be allowed on sales of live stock to the extent of 250 miles.

Farmers and Stock Breeders of the Dominion should not miss the sale, as no better breed or finer lot of imported cattle and offspring were ever offered for sale in this province.

At the same time and place I will offer my 600 acres of first-class land and out-buildings, situated from one to four miles of the town of Peterborough. The lands will be so divided as to meet the wishes of intending purchasers.

Catalogues and other information supplied on application to JOSEPH REDMOND, Peterborough. Carriages will meet parties wishing to attend sale at the station on day of sale. 27/1890



Important



Auction Sale



DISPERSION OF MOULTONDALE HERD OF

Shorthorn Cattle, Clydesdale Horses, Shropshire Sheep, and Berkshire and Suffolk Pigs.

The undersigned, who intends to rent or dispose of his farm (other business taking up his attention) will sell by Public Auction, **ON WEDNESDAY, OCTOBER 22, 1890.** 30 head of Pure Bred Shorthorn Cows, Heifers, and Calves; 25 head of Pure Bred Shropshire Sheep, Ewes, Ewe Lambs, Rams and Ram Lambs. Some of the Ewes are imported, balance bred from imported stock. 8 Pure Bred Clydesdale Mares and Fillies, either registered or eligible. 2 Fillies with two crosses; 1 Heavy Draft Mare, one cross; 2 Colts, one Heavy Draft, one Roadster; 1 Span Work Horses; 1 Holstein Cow, 4 years old, from Imported Cow and Lord Barrington, eligible for registration in American Holstein Herd Book; 1 Holstein Bull, 14 months old, eligible for registration in American Holstein Herd Book; 1 Holstein Heifer Calf, also a few grade Shorthorns; 40 head of Pure Bred Suffolk and Berkshire Sows and Boars. The Shorthorns are mostly pure Bates, and are now mostly in calf to Baron Constance 9th, (bred by Jno. Gibson, Dentfield,) who now stands at head of Herd. My herd is especially noted for their extra good Milking qualities. Sale of Stock will commence at 10 o'clock sharp. Terms, twelve months credit on approved notes. Catalogues ready after Sept. 15th, will be sent on application.

Dunnville on Buffalo and Goderich Branch, G. T. Railway. 40 miles east of Brantford. 810

F. J. RAMSEY, Dunnville, Ont., Co. Haldimand.

ENGLISH PEDIGREE LIVE STOCK.

Shires, Shorthorns, Herefords, Jerseys, Ayrshires, Kerries, Shropshires, Oxfoeds, Hampshires, Dorsets, Lincolns, Cotswolds, Berkshires, and Yorkshires.

Choice registered stock of best strains and highest merit for sale at moderate prices.

Foreign buyers assisted in purchase and shipment at 1 per cent.

Stock supplied and shipped under care of experienced herdsmen at 2 1/2 per cent. Special low freights. Highest reference from Canadian Breeders. All Importers should apply to:

E. GOODWIN PREECE,

Exporter and Live Stock Agent. Shrewsbury, Eng.

MANUFACTURERS' LIFE INSURANCE COMPANY. TORONTO.

SIR JOHN A. MACDONALD, P.C., G.C.B., PRESIDENT.

JOHN F. ELLIS, MANAGING DIRECTOR.

Insures lives on all approved plans. Rates lower than any other Company. Policies the most liberal. Claims settled immediately on proof of death.

Live Agents Wanted in every Village and Town in the Dominion.

SHORTHORNS.

BELVOIR HERD

Pure-Bred Shorthorns.



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

Waterloo Princesses, Darlington Garlands, Constance Charmer Princesses, Scapinas, etc.

There are some imported Booth Cattle, and Scotch strains are also included. Purchasers can depend upon fair treatment and liberal usage.

KOMOKA STATION 3 MILES

Richard Gibson - Delaware P.O.



J. & W. B. WATT, BREEDERS OF SHORTHORNS CLYDESDALES AND OXFORD DOWN SHEEP and BERKSHIRE PIGS

SALEM, ONT.

Arthur Johnston GREENWOOD, ONT., CAN.



Announces to his customers, and the public, that he is still doing business at the old stand, and has for sale the finest lot of young animals, of both sexes, ever offered by him. The yearlings of both sexes are exceedingly good—all by imported bulls, and mostly out of imported dams.

Intending exhibitors can be supplied with first-class show animals of either sex and of various ages. New catalogues will be ready by January 20th, 1890. Send for one.

Claremont Sta'n, C.P.R., or Pickering Sta'n, G.T.R. Write or wire me, when and at which station to meet you. No business, no harm.

CLAREVILLE STOCK FARM

Lying between Canada Southern Railway, and Grand Trunk Air Line. Cayuga Stations.

I breed and have FOR SALE

A-1 SHORTHORNS

Marquis of Linwood and Lord Chesterfield 5th. 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.



J. R. MARTIN, CAYUGA, ONT.

LITTLE'S PATENT FLUID SHEEP DIP AND CATTLE WASH.

CHEAP * CONVENIENT * AND * EFFECTIVE.

The best Non-poisonous Sheep Dip and Cattle Wash in the world.

A "CHEMICAL FOOD" FOR THE WOOL.

Rapidly increases the quantity and improves the quality.

IT IS EASY TO USE.

Requires very little preparation, mixes instantly with cold water, leaves no sediment, no scum, no waste.

CERTAIN DEATH TO LICE, MANGE,

And all insects upon Horses, Cattle, Calves, Pigs, Dogs, etc. Superior to Carbolic Acid for Ulcers, Wounds, Sores, Saddle-Galls, Sore Udders, etc.

EXTRACTS FROM SOME OF OUR NUMEROUS CANADIAN TESTIMONIALS.

"We think a great deal of it."—Prof. Brown, late of Agricultural College, Guelph.

"Sure death to lice on cattle and colts."—Robt. Marsh, Lorridge Farm, Richmond Hill.

"Gives great satisfaction."—W. Whitelaw, Guelph.

"Best ever used."—Jas. Russel, Richmond Hill.

17 GOLD, SILVER AND OTHER PRIZE MEDALS have been awarded to Little's Patent Fluid Dip in all parts of the world. Sold in large tins at \$1.00.

Special terms to Breeders, Ranchmen, and others requiring large quantities.

MANUFACTURERS AND PROPRIETORS,

Morris, Little & Son, Doncaster, Eng.

Ask your nearest druggist to obtain it for you, or write for it, with pamphlet, etc., to

ROBT. WIGHTMAN, DRUGGIST, OWEN SOUND, ONT.

Sole agent for the Dominion.

CITY HOTEL

State St Cor. 16th St. CHICAGO, ILL.

Special Rate to Stockmen, \$1.50 per day

Within ten minutes ride by State St. or Wabash Ave. Cable Lines from Business Centre.

W. F. ORCUTT, Prop.

FRED. MUELLER, Clerk.

Belvedere Stock Farm!

3 1/2 Miles from Alisa Craig on G.T.R. Line.



We Breed:—PURE BATES SHORTHORNS, AND LEICESTER SHEEP.

Our herd of Shorthorns, headed by Rosy Prince 6th, and it consists of the following families:—Constance, Tily, Chesterfields, Berthas, Rosettes, and Darlington. We have for sale a choice lot of young bulls. Also a number of young heifers bred to Imported Dukes of Salfisbury, and they, like the bull, are descendants of good milking strains. Any person looking for stock is always welcome and will be met at depot if notice is given when they are coming. Prices and Terms Easy. GRAHAM BROS., Alisa Craig P.O.

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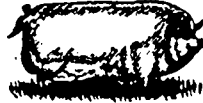
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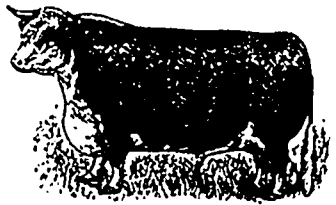
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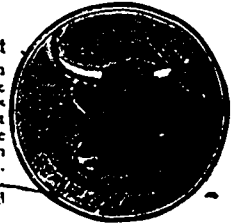
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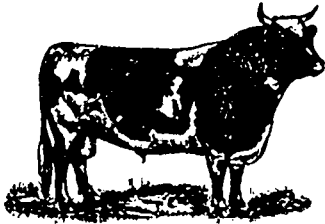
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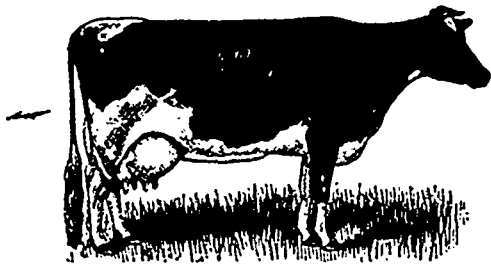
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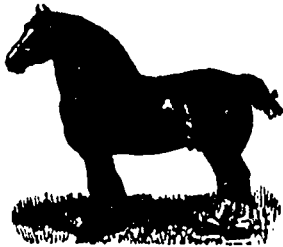
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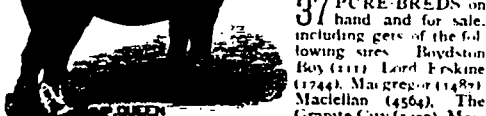


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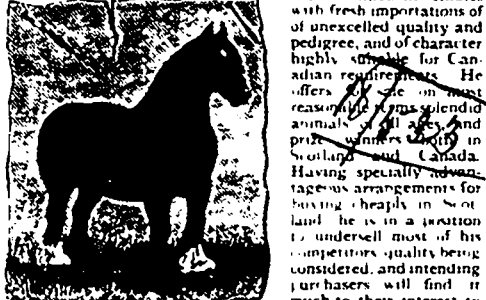
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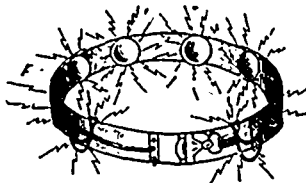
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