

# MANITOBA and WESTERN EDITION



AND HOME MAGAZINE.  
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## THE FARMER'S ADVOCATE & HOME MAGAZINE

WM. WELD, PROPRIETOR.

THE LEADING AGRICULTURAL JOURNAL PUBLISHED  
IN THE DOMINION.

The FARMER'S ADVOCATE is published on or about the first of each month. Is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners and stockmen, of any publication in Canada.

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THOMAS WELD,  
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Box 214, WINNIPEG, MAN., CANADA.

### Our Monthly Prize Essays.

#### CONDITIONS OF COMPETITION.

1.—No award will be made unless one essay at least comes up to the standard for publication.

2.—The essays will be judged by the ideas, arguments, conciseness and conformity with the subject, and not by the grammar, punctuation or spelling, our object being to encourage farmers who have enjoyed few educational advantages.

3.—Should one or more essays, in addition to the one receiving the first prize, present a different view of the question, a second prize will be awarded, but the payment will be in agricultural books. First prize essayists may choose books or money, or part of both. Selections of books from our advertised list must be sent in not later than the 15th of the month in which the essays appear. Second prize essayists may order books for any amount not exceeding \$3.00, but no balance will be remitted in cash. When first prize essayists mention nothing about books, we will remit the money.

Our second prize has been awarded to John Robertson, Gladstone, Ont., for essay on *What Steps Should be Taken to Improve the Quality of Milk delivered at Cheese Factories.*

A prize of \$5 will be given for the best essay on *The Cost of Rearing a Sheep to the Age of Twelve Months, Eighteen Months, and Two Years Old Respectively, and the Profit Realized at the Various Ages.* Essay to be in this office by the 10th of February.

A prize of \$5 will be given for the best essay on *Giving Practical Experience and Observation as to the Best Methods of Cultivating the Land in Manitoba and the Northwest,* with special reference to withstanding drought and maintaining the quantity and quality of the grain yield. Essay to be in this office by the 15th of February.

### Editorial.

#### Manitoba Dairymen's Association.

Dairymen's associations can be made a power for good in the improvement of the dairy products of any country where they are properly conducted. The interchange of ideas at these meetings must prove highly beneficial. Any man that keeps half a dozen cows, and any farmer with a quarter-section of land should keep more than that number, can not afford to absent himself from their meetings. The first and most important mission of such an association should be to teach and learn the most economical methods of milk production, which can be most effectively done by an interchange of ideas by the members. After producing the milk the next matter is the manufacture, and lastly the marketing. Of these the first is most important, as stated by Prof. Barré, "success depends mainly on the economical production of milk." Now if we analyse the proceedings of this convention how much information on this subject can be gleaned from the proceedings: Not a trace, not a single reference to the best type of cow; no reference to the best systems of feeding; not a word in regard to the manurial value of different foods; not a word on the care of cows or rearing calves for best results in the dairy in after years; nothing concerning pure air, pure water, kind treatment or cleanliness and comfort in the stables; nothing as to the different methods of separation; no reference to the care of milk in any shape, form or manner; and in the manufacture of dairy goods, with the exception of the reference by Prof. Barré to the fact that a great amount of milk had been made into butter, that now lies moulding in cellars that would have found a more ready and profitable market had it been sent to the cheese factory. Was anyone the wiser as to churning, working or salting butter, or the best dairy utensils, whether brine or dry salting is preferable, or on any single point in manufacturing a first class article of butter or cheese? Will one farmer who attended go home with one atom of information on this subject to impart to his wife or even a point for consideration and discussion? Mr. Grant certainly made a good point in referring to eastern creamery butter being sent through the province to western markets, while our own butter lies in the cellars because it is of inferior quality. But how many of the butter-makers of the Province have any idea that their butter is inferior. But teach them how the work should be done and they will see more readily where they have been at fault, and make an effort to do better by adopting the more ad-

vanced methods. In other words, saying the product is not good, without giving instructions how to do better is of little avail, and will not aid in improving the product or securing a greater membership or larger attendance. It would be much better to have a two days session. At the "Portage" meeting, about four or possibly five hours was all the time available for papers and discussions thereon. There was no reason why there should not have been at least three sessions in the day, and if there were three the first day and two the second it would be better still. It is unfortunate that the membership is not larger, certainly it might be if greater efforts were made in that direction. A little more energy in augmenting the membership, and a little more spice in the meetings would work wonders in increasing the prestige of the Association.

The chief topic, or at least the one on which all seemed to dwell, was the necessity of a Government Inspector for factories. The directors were instructed to wait on the Government and urge the claims of the Association for assistance on that line. That any Government would take such steps, however until the Association has proved itself of greater use than this has done, is very improbable. If the same energy was expended in increasing the membership and extending the usefulness of the Association, the object would have been more nearly attained than by a continuation of this "urging claims" business. When the membership shall have reached a reasonable point, and the usefulness of the Association been fully demonstrated, there is no reason to fear that any Government will withhold reasonable assistance. Along this line the ADVOCATE is prepared to lend any and every assistance, believing that an energetic and pushing Association could and would accomplish much for the dairy interests of the country. To this end this paper will at all times gladly give the fullest publicity to any meetings of the Association of which the Secretary may give us notice.

The Arrow Milling Company built a thoroughly equipped roller process flour mill at Birtle this fall and early winter, which is now running full blast, much to the convenience of the farmers in that locality, who have heretofore been obliged to go a long distance to mill.

At Binscarth recently we saw King George, who when we last saw him was the winner of the Queen's Plate in London, Ont. King George was bred by Col. Peters, of that place, and was sired by the noted King Tom, dam by Sir Tattan Sax. King George is now the property of Mr. James Fletcher, of Binscarth, and although somewhat "gone" on the legs is still lithe and active as a kitten, and will doubtless be a useful stock horse for some time to come. Many people are of the opinion that the thoroughbred horse used on a moderately heavy mare produces the best general purpose horse for this country. Of this, however, we are not quite sure.

### Hope Stock Farm, St. Jean Baptiste, Manitoba.

This farm, situated forty-six miles south of Winnipeg, contains eighteen hundred acres of beautifully undulating prairie land, and is owned by Mr. Wm. Martin, of Winnipeg. Up to the fall of 1888 the farm was under the management of Mr. Martin. Other business, however, requiring his undivided attention, he secured the services of Mr. John G. Brown, at one time manager of the celebrated Bow Park Farm of Brantford, Ont., to manage Hope Farm. Mr. Brown has had a life-long experience with cattle, having been born on the farm of the celebrated Amos Cruickshank, of Sittyton, Scotland, from whom, after many years of service, he holds an excellent recommendation, both for capability and trustworthiness, in Mr. Cruickshank's own hand writing.

The buildings on this farm are well adapted to the requirements of stock. The granary is on the elevator plan, and the grain can be transferred from any one bin to any other, power for this and all other machinery, pumps, etc., being furnished by a large wind-mill, and when the wind-mill fails, a Sawyer portable engine is attached. A power pump forces the water into the stables. Carpenter and blacksmith shops are in connection with the buildings. The implement shed contains four binders, three mowers, three seed drills, waggons, buckboards, buggies, and other implements in profusion. Seven thousand bushels of wheat was threshed this season, averaging eighteen bushels per acre. About eleven hundred acres of the land are under cultivation. Three thousand ash-leaved maples were planted last spring, and seem to have done well, although we cannot commend the practice of manuring young trees that has been adopted. Too rank a growth of young timber prevents the wood from ripening, and it is liable to suffer from the effects of frost.

Mr. Martin wisely decided that, in carrying on a farm of this size, pure-bred stock must be made an important factor. His choice was Galloway cattle, of which he now has a very nice little herd. Three good bulls grace the stalls at the present time. Of these Osborne of Glenru (4239) is a very promising animal. He was bred by Wm. Todd, of Arran, Scotland; was sired by Sir William 2nd of Drumlauring (1787), dam Dora 4th of Glenru (4067). Osborne was imported from Dumfries, Scotland, from the herd of Mr. Biggar, of Dalbeattie, so well known in Galloway circles. He has a grand top line, excellent in front and good behind, with well-sprung ribs, and is fine in every respect, except, perhaps, in his present only medium condition and three-year-old form; a little light in the flank.

Black Crusader (4504), bred by Thos. Biggar & Son, Dalbeattie, Scotland; sire Crusader (2858), dam Blackie 20th (9481). This bull has a grand pedigree, second to few, if any, in the Galloway herd book. His sire was, at one time, the champion bull of the breed, sweeping the first prizes at all the British shows. Although now somewhat out of condition, he shows his royal lineage, and will doubtless make his mark in this country.

Burnie (4500), bred by John Burnie, Lockerbie, Scotland, sire Lord Nelson (3928), dam Lizzie 3rd of Hoprigge (8495), is a very promising two-year-old, and will doubtless prove a decided acquisition to the herd at Hope Farm.

Among the females, we note a few of the

choicest only: Hannah I. C. R. 3343, bred by Sir R. Jardine, M. P., Castlemilk, Scotland, sire Roseberry of Castlemilk (1579), dam Hannah 3rd (7699), was one of the prize herd at Ottawa in 1887, and won first prize at Guelph in 1886. This is a really magnificent cow; very low and thick fleshed; good top and bottom in front and behind. She carries her flesh well back over the rumps, and looks beef all over, although only in fair breeding condition. Christabel (2588), bred by T. Biggar & Sons, Dalbeattie, Scotland; sire Crusader (2858), dam Chrissy (7099). This young cow is not yet three years old, but has won numerous prizes in Ontario, at such shows as the Ontario Provincial and the Industrial of Toronto. She has a good top line and excellent bottom, and is in every way a typical Galloway. Cora 5275 is a fine yearling of much the same style and type as Christabel, and promises to develop into a prize-winner of no mean order.

This herd, although numbering less than thirty, is decidedly select, having several streams of the blood of the renowned Crusader (2858) in it, as well as that of other noted animals. Mr. Martin certainly made no mistake in securing these animals for the foundation of his herd and as a breed. They are, as beef producers, well adapted to this Province and the Territories. Hope Farm will also receive a consignment of Clydesdales from Scotland next spring.

### The Ontario Mutual Live Stock Insurance Company.

We have received at this office a copy of the by-laws of the above company. The directorate is composed of the following prominent stock-breeders:—President, John McMillan, M. P., Constance; Vice-President, D. D. Wilson, Seaford; Sec.-Treas., John Avery, Seaford; Chief Inspector, D. McIntosh, V. S., Brucefield; Directors, A. Bishop, M. P. P., John Iddington, Stratford; Thos. Evans, St. Marys; A. Innis, Clinton; P. McGregor, Brucefield; W. D. Sorby, Guelph; Robt. Beith, Bowmanville; George Moore, Waterloo; Thos. Russell, Exeter; Thos. McLaughlin, Brussels.

The Company propose taking risks up to 50 per cent. value on all live stock, and in no case will their valuation exceed \$2,000 for high-class stallions and mares, \$500 on thoroughbred cattle, and \$80 each on the pure breeds of sheep. Insurance on ordinary farm stock limits horses at \$200, cattle at \$50, and sheep at \$7, for which the Company take premium notes at the following rates:—On high class stallions and mares, 15 per cent.; on thoroughbred cattle, sheep, fillies, colts, 12½ per cent.; on general farm stock and geldings, 10 per cent., and 20 per cent. of the premium notes collected in cash at the time of insurance, which is credited on the notes. The loss being mutual, this should place the premiums at a minimum, as death from animals employed in some of the most dangerous places, or loss otherwise than death is not recognized.

The Company has made the deposit with the Government up to the required amount laid down by the statute, and have secured their charter, but no policies will be issued until they have \$50,000 worth of risks on hand.

The object of the Company should be favorably received by the breeders of live stock all through the country, especially in the cases of high-priced stallions, which are often sold on time to men of small means, and a mutual insurance company that can be worked without heavy expenses is just what is required in these cases, as the purchaser then pays the premium leaving the policy in the hands of the seller, the Company carrying their part of the risk for both parties. For particulars address the Secretary at Seaford, Ont.

### Duty on Wheat vs. Duty on Flour.

Sir,—I say, success to the FARMER'S ADVOCATE and its wise and energetic proprietor. Every practical farmer, who reads your valuable monthly, will gain much useful information in these close times, although I am unable to agree with you every time. For example, in your last issue you favor an increase duty on flour. If I had a thousand votes I would vote against the increase. We are aware of the fact that millers have combined to close some mills, that those who run their mills may buy grain cheap and sell their product high enough to pay those millers who agree to keep their mills idle. I am satisfied that the Canadians would not receive any benefit from the increase duty on flour. There is a mill company in Woodstock, Ont., who hire men to wheel their oat dust from their mill to a safe distance and there burn it, in summer time, because the farmers are not willing to pay the millers their price for it.

CONSTANT READER, Hickson, Ont.

As our readers can readily see, this is no political question, and, as we are under a protective tariff, it behooves each industrial department to look after their several interests. That the millers have a grievance in respect of the tariff on flour, in comparison with that on wheat, any one who will take the time to go into figures on this question will easily see. The Government estimate is that it requires 4½ bush. of wheat to make one barrel of flour. The duty on wheat is 15c. per bush., on flour 50c. per barrel; therefore, the duty on 100,000 barrels of flour would be \$50,000, while on the 475,000 bush. of wheat required to manufacture that quantity of flour, there would be a duty of \$70,250. According to the American Miller, in the ten months ending in Oct. 31, 1889, Canada imported, from the United States, 873,471 barrels of flour, of which 162,917 barrels was imported in October. If all the figures were to hand, no doubt, in the year 1889, our imports of flour would be a long way over 1,000,000 barrels. At the even 1,000,000 barrels, there would be a differential tariff of \$202,500 in favor of flour, which would go a long way towards paying more wages and keeping our mills and cooper shops employed, as well as protecting our farmers wheat to the full 15c. per bush.

Our lumbermen and fishermen would not then have the inferior grades of American flour palmed off on them, that they do at present, as the advance in the tariff asked would stop the importation of poor flour.

Our Canadian millers are complaining that they are losing trade, and that they should have more duty on flour, or that on wheat must be reduced. Now, we look at the question from the farmers standpoint. For example, a representative of the ADVOCATE saw tested and was shown the invoice of eight cars containing 5,081 bushels of 59-lb. Chicago wheat that was delivered to a miller in London, Ont., the middle of last month at 75c. per bushel, freight paid. This wheat in Toronto or London would be worth 83c. a bushel, a difference of 8c. per bushel; but having been brought on to be ground in bond does not come into competition with our wheat. If this present duty were removed the price of our wheat would of course be reduced to the level of the American article, and 75c. would be the price at that date. That wheat is cheap enough now every farmer will allow, but to reduce the present tariff on wheat would be suicidal to farming interests as they stand at this date, therefore we are of the opinion that the farmers of Canada should go hand-in-hand with the millers to obtain what is beneficial to both, as in this case, as well as others, the business of wheat growing and milling are very closely connected.

### Fifth Annual Meeting of the Manitoba Dairymen's Association.

The fifth annual meeting of this association was held at Portage la Prairie on Wednesday, Jan. 15th. President Wagener, in opening the meeting, spoke at considerable length on some of the questions affecting dairying in Manitoba. He referred to home dairying as practicable and profitable, and recommended it where isolation of the farmer prevented him from patronizing a factory or creamery. He claimed it was possible to produce a better article at a home dairy than a co-operative one on account of the difficulty of inducing general attention to cleanliness in producing and handling the milk or cream. He also urged an appeal to the Government for financial aid to enable the association to employ milk inspectors, and in case the Government would not render the desired assistance to appeal to the municipalities. He further claimed that there was not a civilized country in the world that did not in some way aid in developing her dairy interests. He would recommend small dairies to churn frequently and keep the butter in a granular state in brine until enough was saved to fill a package, and then pack all together, thus preventing streakiness in the packages that would occur if an attempt was made to pack two or more churnings together by any other method. He especially dwelt on the necessity of uniformity of quality of product to obtain the best results. The address throughout was practical and logical.

Mr. M. Champion, of Reburn, followed with a paper on "Who should be Interested in Dairying in Manitoba." This, he claimed, included every man, woman and child in the Province, giving as a reason that the country was well adapted to dairying, and that dairying and wheat growing should go hand in hand. He claimed that while Manitoba has at present a great surplus of butter, that with a better quality the supply would not be equal to the demand. He also thought it incumbent on the Government to employ inspectors or grant the association aid for that purpose.

Kenneth McKenzie, M. P. P., was called on, and said he had not much experience in dairying, as he preferred raising stock; he thought a man should follow the line of farming best suited to his locality. He found wheat to be the most profitable on his farm on the Portage Plains. He referred with pride to the fact that two young Canadians are now employed in Scotland as dairy instructors, but reminded the men who were asking for Government assistance that they were employed by the Dairymen's Association.

Mr. Jas. Glennie agreed with the previous speaker that wheat at present paid on the Portage Plains, but contended that in twenty years time the dairymen would have made the most money. He saw no reason why they might not raise as much wheat as at present and with very little if any extra help produce a goodly amount of dairy goods, and that in less favored parts of the province dairying paid much the best.

Mr. Brown sustained this view of the situation, and claimed that even on the favored Portage Plains mixed farming was the most profitable.

Mr. Jones thought in view of the great area of hay and pasture land in Manitoba the dairy interests should be encouraged. He cited several instances of cheese factories having proved profitable. He suggested a system of hiring cows

to the factories where the locality would admit of herding in the vicinity of a factory.

The Secretary-Treasurer submitted a report showing the association to be in a fairly satisfactory financial condition.

The meeting then adjourned until seven o'clock, when the election of the following officers was proceeded with:—President, Senator Boulton, Shellmouth; 1st Vice-President, James Glennie, Portage la Prairie; 2nd Vice-President, M. Champion, Reburn; Directors, Hon. Mr. Clifford, Austin; Mr. Creighton, McGregor; E. A. Struthers, Barnardo Farm; W. Pearson, St. Francis Xavier; Mr. H. J. Rockett, Manitou; Mr. W. S. Grant, Winnipeg; Mr. Riley, Cypress River; Prof. Barré; Mr. Wenman, Souris; Secretary-Treasurer, Richard Waugh; Auditor, W. Wagner.

The meeting decided to ask for a number of amendments to the Dairy Act at the next session of the Legislature.

Professor Barré was then called on and read a paper on "Dairy Education." He stated that the butter production of Manitoba was about two million pounds, not ten per cent. of which was first-class. We lose ten per cent. on ninety per cent. of this, which aggregates \$120,000 per annum. He thought proper dairy education would remedy this. He referred to the fact that dairymen's associations grew out of the cheese factory system. He further referred to the great increase in this industry and to the fact that Canadian cheese last season brought three-quarters of a cent more per pound than American cheese, which on the amount sold meant \$475,000 more than would have been realized for the American article. He recommended an exhibition of dairy products with a full account of process of manufacture and methods of feeding, etc. He claimed that success depended largely on economy of production of milk. We should aim at 10,000 lbs. of milk per cow in a season of six months. This meant careful selection and breeding, good feeding, including perhaps partial soiling, stabling and a careful attention to all the details of milk production. He stated that the most successful dairy countries in the world adopted the co-operative system, which he highly recommended, as it not only improved the quality but secured uniformity of product, which is of great importance. In Denmark alone three hundred creameries have been started this season. He cited an instance of a Danish farmer who usually made his own butter from a hundred cows, but owing to circumstances was unable to continue doing so, and sent his milk to a co-operative creamery and found that the net proceeds were equal to the gross proceeds of his own dairy, thus effecting a saving of the entire expense of manufacturing. He referred to the great necessity of producing nothing but the best articles, and thought there was a great work to be done in educating patrons to send only a good article to the factory. He also referred in complimentary terms to the good accomplished by the dairy inspectors in Ontario and Quebec.

Mr. Grant referred briefly to the great amount of butter now held in stock in Manitoba, and carloads of creamery butter being shipped from the east to British Columbia and the west. He thought the merchants would profit by the experience of this year and buy according to grade in the future and thus help to remedy the evil. He especially advised co-operation and organization. He thought this province would in the future be largely engaged in dairying.

In answer to a question, Prof. Barré stated that he had this season realized from his patrons, both in his cheese factories and creameries, sixty-eight cents per hundred for the milk, thus showing the creamery the most profitable to the extent of the value of the skim milk over that of the whey; that skim milk was worth twenty cents per hundred for feed, and whey worth ten. The meeting adjourned at about 10.40 p.m.

## Stock.

### Horse Breeding in Canada.

There is no more fascinating pursuit than that of breeding domesticated animals, and the art has been practised from the earliest ages. The oldest writers on agriculture have given directions for breeding and improvement, and among the whole of the English-speaking people there is found an innate love of stock and stock breeding. Amongst the many branches of this industry horse breeding is one of the most important, and in no line has greater change and improvement been brought forth. For this branch of farm industry our soil and climate are thoroughly suited, and wherever our horses have gone they have given a good account of themselves. That the feed and treatment they receive at the hands of our breeders produce horses of good wearing type, is proved by finding the same buyers frequenting our markets year after year to fill their orders.

England and Scotland are yearly exporting, to all parts of the world, horses for breeding purposes, and at the same time are largely importing the cheaper work horses that cannot be bred in sufficient numbers to supply the demand, and are, by so doing, reaping a large profit by the transaction.

The cities of this continent require an immense yearly supply to fill the ranks of those disqualified by the wear and tear of traffic. Canada has done her share toward supplying what are needed in the different lines of work horses, and the sale of these has been a large source of revenue. But our aim should be higher; there is no reason why the majority of our farms should not be able to support one or more of the very best mares of our representative breeds, whether they be of draught, coach, saddle, or any other class, as long as some particular end is kept in view. Our greatest need of reform in horse breeding is to discontinue the use of the low grade all-purpose stallion. The patronage of this class each season, not only produces weeds and culls that no buyer wants at any price, but lessens the profits of the best bred stallions. Therefore, there are many sections of the country that a good, high priced horse cannot get sufficient patronage to retain his services; for, as a rule, the smaller the fee the greater the amount of business done. We have for example only to look at the position France has attained through the government taking control of the breeding there, by the introduction of the best blood, and also by instituting a measure, by which all stallions used in stud are required to pass an examination, and, when approved, they receive state assistance, and are exempted from taxation; the result has been a wonderful improvement in the quality of their horses, and a corresponding lucrative demand.

If Canada is ever to become a successful breeding ground, some such measure is required, for the best horses cannot be introduced without large expenditure, and those that are enterprising enough to bring in good specimens require all the encouragement that the different districts can give.

The number of horses in European Russia is 21,000,000, including six government studs, besides a large number of private ones. The Russian government devotes annually \$80,000 to the purchase of stallions, and, so widespread has been the interest of late years in improving this stock, that races, trotting-matches, and shows have been largely increased all over the country.

### Specimens of the Maple Shade Herd.

We present to our readers in this issue a very spirited cut of Shorthorns from one of the largest and best herds now in Canada. It consists of the imported bull Sussex (56625), and three of his progeny. This fine bull is now in use at Maple Shade, the home of that public-spirited farmer and breeder, Mr. John Dryden, M. P. P., Brooklin, Ont.

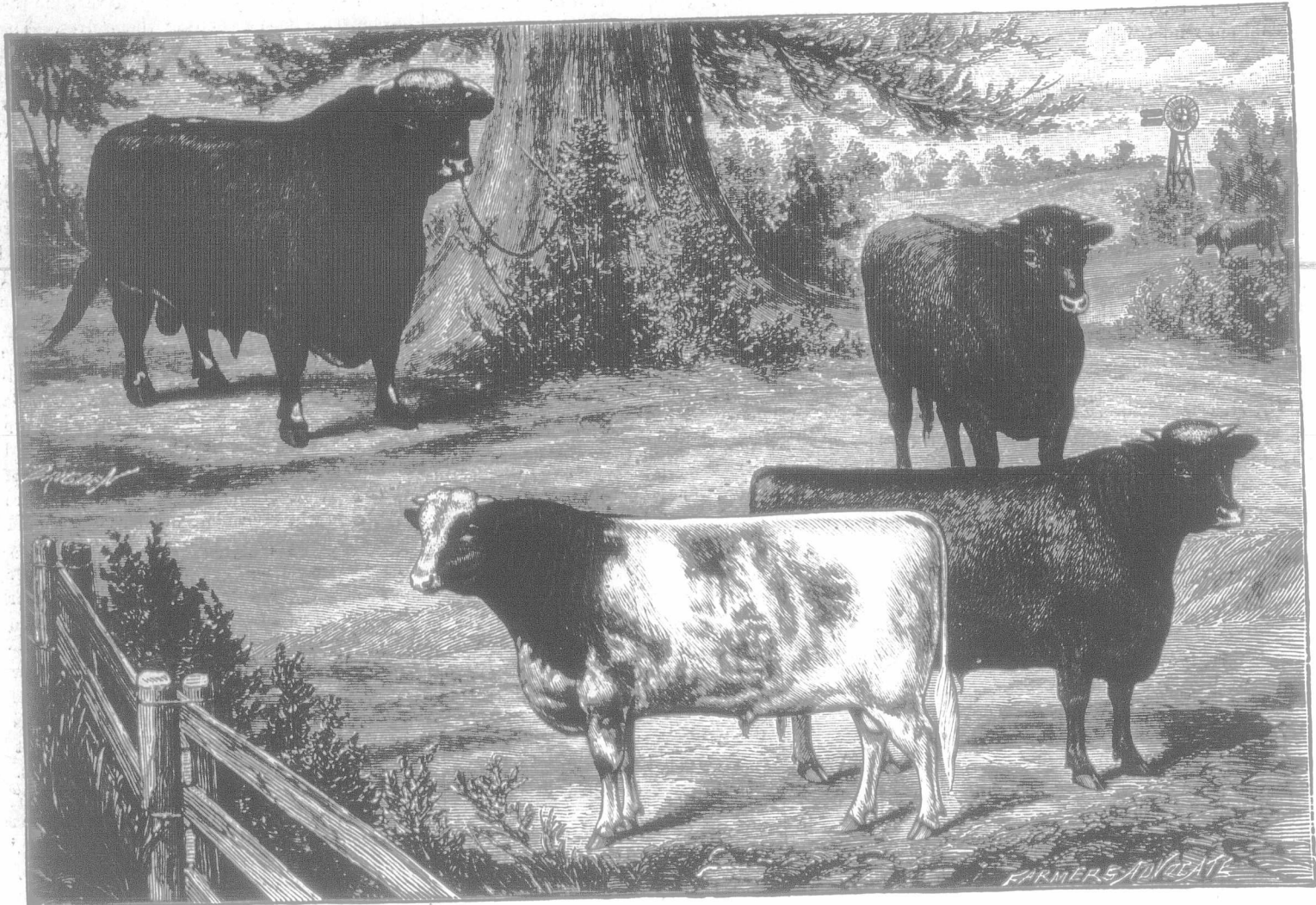
Our artist has been fortunate in presenting the masculine character of this bull, as also his strong back, and immense, level, broad and full hind-quarters. He was bred by that world-renowned stockman of Sittyton, Aberdeenshire, Amos Cruickshank, Esq., and selected by his

Victor, of Mr. Cruickshank's Victoria tribe, to Mr. M. A. Housholder, of Columbus, Kansas. The latter gentleman, we are informed, takes another young bull, Eureka, sired by the prize-imported bull Aboyne, now owned in Missouri; also the yearling heifer Seamaid, out of imported Sultana, and the young red cow Foxglove with heifer calf at foot. A fourth young bull has been sold to James Leask, of Greenbank, Ont. Mr. Housholder takes these animals to complete his present prize-winning herd, and we expect to hear of them next season.

These are fair samples of Maple Shade production, and could easily be duplicated. The visitor will be struck with the evenness of excellence throughout the entire herd. If there

### Birtleside.

This is the name of the somewhat extensive stock farm of Gen. Wilkinson, near Birtle, in this Province. The farm is situated on Birdtail Creek, about two miles below the town, and contains one thousand nine hundred and twenty acres. It is under the management of Mr. J. B. Lloyd, a nephew of the General. He is a seemingly practical man. There is a very fine barn on the farm, and several cheaper stables that are very comfortable, but which it is the intention to replace with more elaborate structures when the business has proved profitable to that extent. We must certainly commend the good sense of the Manager in this respect, as while he has access to sufficient means to erect extensive



THE STOCK BULL SUSSEX (56625), AND THREE OF HIS CALVES, THE PROPERTY OF MR. JOHN DRYDEN, M. P. P., BROOKLIN, ONT.

nephew as being the most promising breeding bull of that season. Calved in April, 1886, he is now rising three years, was sired by Baron Violet (47444), a bull used much at Sittyton until he met an untimely death. He was a great favorite, and was noted for great depth of body and extra feeding qualities. Dam of Sussex is Serenity, by Barmpton (37763), grand dam Souvenir, by Royal Duke of Gloster (29864), a half-brother of the great Canadian bull Barmpton Hero.

Sussex is not what is generally termed a show bull, and yet when critically examined has few faults. Since this cut was made, we learn that two of the young bulls presented have been sold. The upper red bull, Baron Butterfly (47192), dam Butterwort by Vensgarth, grand dam Buttercup by Vittoria (45747), to Wm. Moffat & Bro., Paw-Paw, Ill. The other bull, Red

have been culls they seem to have been weeded out. A representative of this journal visited the herd shortly before they went into winter quarters, and has been loud in his praises ever since. A friend of ours, after looking over the herd, remarked that they were all good, and he found it extremely difficult to make a selection.

The herd is founded almost exclusively upon selections repeatedly made from the great Sittyton herd, to which is added a few others of the best Scotch breeding, and is noted for thick flesh and early maturing qualities, and has during the past ten years or more furnished its fair quota of prize-winning animals at many leading shows. We have no space to notice the individual animals in the herd, but have no doubt a card addressed to the proprietor will bring a catalogue with any special information needed.

buildings at any time, he prefers to await results to a certain extent before expending a larger amount of money than is absolutely necessary. The pure-bred stock at present on the farm is eight Shorthorns, fifteen Berkshires, four Clydesdales and six Shropshire sheep. Pending the increase of pure-bred stock a large number of grades are kept, but which will be dispensed with as the room is required for the better animals. A hand separator is in use in the dairy, the first we have seen in this country, and is giving good satisfaction. Fourteen cows are milking at present, and there will be twenty next summer. There are two houses for employes, besides the Manager's residence.

**We want Good, Live AGENTS to Canvass for the "Farmer's Advocate" in every locality in the Dominion and United States. Sample copies and subscription blanks free to canvassers who mean business.**

### Messrs. Shore Bros.' Dispersion Sale.

The ADVOCATE has made a new departure in the nicely executed illustration which we present to our readers on this page. The cut is drawn from life by the promising young artist, Mr. J. P. Hunt, and is an admirable likeness of the successful show cow, Ruby Hill, owned by Frank R. Shore & Bros., White Oak, Ont. In the back and foreground are included some specimens of the Shropshire-down sheep which this firm have included in their breeding operations and of which they have recently imported some extra good specimens. The cow is an example of the Aberdeenshire Shorthorns as

shire herds. These cattle have been noted for their practical qualities. The cows are good milkers, and for early maturing beef makers they have never had any superior.

This herd has been carefully bred for many years on their farm a few miles south of London, but the proprietors have reluctantly concluded to disperse their cattle and sheep early in March. This has come about through the senior partner of the firm and another brother having made other business arrangements. See their advertisement in other columns.

### Winter Care of Breeding Ewes.

We have been asked to give our views on the winter care and feeding of breeding ewes. If the ewes have not been bred for early lambs they

ercise is very essential to best results in lambing season, and the ewes, while pregnant, should be encouraged and even compelled, if necessary, to take exercise. For this purpose we advise that a small grass field be kept near the pens for them to run in, and that they be fed in racks in the open yards in fine weather. A week or two before lambing time the ewes should have a little extra feeding, a few roots or a little oats and bran should be added to their fare, and after lambing they should be fed liberally of roots, and oats, and bran. We do not advise the feeding of peas or other heating grain to ewes suckling their lambs, as such feed is liable to cause sore bags and teats, and to make



THE PRIZE-WINNING COW RUBY HILL 12th, THE PROPERTY OF MESSRS. SHORE BROS., WHITE OAK, ONT.

bred in Canada, and although several crosses from the imported cow, she is of orthodox breeding, sired by the Sittyton-bred bull, Prince of Northumberland (46911), then two imported Kenellar-bred bulls of extra good individuality, then the imported Kenellar cow of the Ruby Hill family. This cow is a living proof that this sort does not deteriorate when bred on this side of the water, and we question if there has been as good a representative brought from either herd for many years. The proprietors are among those who have a thorough belief in this useful and popular sort, which has many friends on this continent as well as in England. The Messrs. Shore have a large herd of this line of breeding, having for many years used bulls from the Cruickshank herds, and their foundation cows are bred in those and other Aberdeen-

can be carried through the winter very cheaply on pea straw (hand threshed), and a feed of clover hay once a day; or if it is not desired to feed the hay, the peas may be half threshed, and enough peas left in it to keep the ewes in good heart. If they are to lamb early, say in February and March, we would advise better keep. A few roots may be given in addition to clover hay and pea straw, but we would caution against a liberal feeding of roots before lambing, as the experience of flock masters generally is, that a free use of turnips has a bad influence on the lambs, and that they come into the world soft and flabby and wanting in energy. The ewes may be kept in real good shape up to lambing time, if fed only on peas in the straw; but care must be exercised that they do not get a sufficiently liberal supply to make them too fat. Ex-

trouble for the lambs and the shepherd. When the lambs are about three weeks old provision should be made for feeding them apart from the ewes by hurdling off a space in a corner of the pen, with openings large enough for the lambs to go through, and small enough to prevent the ewes from getting through. Here a little oats and bran, and later on a little nutted oil cake, should be kept in a low trough so that the lambs can get it at any time.

There is no class of stock that requires so little care and attention in winter, up to lambing time, as a flock of ewes, and even after that time, if good judgment is used, they require no great care, the most important thing being to keep them in good heart by a liberal feeding of light, safe food. There is far more danger of losses from over feeding and codling them in warm, close quarters by inexperienced handlers than from the opposite line of treatment.

### Quantity vs. Quality in Sheep.

Two paragraphs appearing simultaneously in two agricultural journals, one in the United States, the other in Canada, written by two individuals, whose words should have weight with new beginners, demand, I think, a passing notice. The first paragraph appears in the issue of the *Breeders' Gazette* of January 1st, over the signature of E. M. Rees, and reads as follows:—

"The unprecedented award on the block at the last fat-stock show to the SHROPSHIRE-MERINO carcass, will set many a sheep breeder crazy for cross-bred sheep, and the demand may be unlimited for large mutton bucks to cross on the smaller ewes. *Go slow, gentlemen.* If you will watch the markets in Chicago, you will find the BIG CARCASSES are the ones that reach the top notch. There is no inquiry made as to what breed they belong to. Permit me to say to any beginner in the sheep business, purchase the largest carcassed, heavy-wooled buck, and then breed up."

The second is from the pen of Canada's justly noted Cotswold breeder, Mr. J. C. Snell, Edmonton, Ont., and appeared in the January number of the *FARMER'S ADVOCATE*. It reads as follows:

"If our circumstances were such that we had a special market, and could secure special extra prices for a certain QUALITY of WOOL or MUTTON, one can readily understand the wisdom of breeding to meet the demands or requirements of such a market; but, what are the facts in regard to our markets? Is not both wool and mutton bought at so much per pound, and is there any considerable extra price paid for QUALITY in either case that will nearly compensate for the difference in weight in favor of the Cotswolds in carcass at any age, or in the annual clip of wool?"

Both these gentlemen, in their remarks, urge that quality counts for nothing in the markets of America and Great Britain, and that the prudent course for the sheep breeders would be to produce as many pounds of wool and mutton as possible, regardless altogether of QUALITY. I confess to having too much public spirit to allow a statement so mis-leading to go uncontradicted. It is mostly because of such advice as this, and of such opinions as these being prevalent that the American people hitherto have used such a small quantity of mutton in proportion to the other kinds of meat offered. My advice would be exactly the reverse. If the young breeder can determine what cross or what breed will produce the finest quality of mutton, then let him invest his money in them—always, of course, observing the motto, which I think is a good one, to seek to grow the GREATEST QUANTITY OF THE BEST QUALITY.

It was not many years ago since wheat was purchased in the same way as that suggested by my friends in their correspondence. A bushel of wheat counted for a bushel whether it weighed fifty pounds or sixty-two pounds. Whether it was carefully cleaned of filth and dirt, or otherwise, the price was always the same. But that day has gone by. The wheat and other grains are carefully graded according to quality, and he who grows the greatest quantity of the best quality counts the most dollars for his produce.

Give to your American friends a taste of the finest mutton, and let them use it upon their tables for a month, then pass off on them some of this mutton, which has been grown according to QUANTITY and not quality, and see whether

there will be any distinction made. I think that a taste can be created by producing the very best article possible; but, I think, on the contrary, that people who can well afford to buy the best, will become so disgusted with the inferior article that they will refuse to buy it at all. I am told by good authority, that there are, in New York city, more men having an annual income of \$25,000 and upwards than in any other city in the world. These persons demand the best of everything for their tables. Is it not prudence then on our part to seek to supply what they are willing to use, and equally willing to pay for?

But, the statement is misleading in another direction. Does it follow that because a man can send to market, an animal weighing fifty pounds more than one sent by his neighbor, and sell it for the same price per pound? I say does it follow that he is making more money by the operation? I contend that this would be an unfair, and very likely an improper inference. The question will be: Upon the same land, and upon the same feed, how many pounds can be produced at a given cost, regardless of the fact whether it travels on four legs or eight?

I have not a word to say against the long-wooled breeds advocated by these gentlemen, except that I have grown them myself, and have no desire to repeat the operation. If I were to accept the advice given by these gentlemen, I should feel that I was breeding DOWNWARD and not upward, as they suggest.

Let me, then, repeat my advice, which is, BREED THE BEST QUALITY, and in the GREATEST POSSIBLE QUANTITY, and you will be sure to win.

JOHN DRYDEN.

### Clydesdale Sires.

Already in Scotland the services of most of the celebrated Clydesdale sires has been secured for the season of 1890. The way this is done is by the breeders of each district forming themselves into a society and appointing directors who look after their interests. Formerly, the Glasgow Spring Stallion Show was the favorite place for this selection, but of late years the best sires have all been secured in advance. The rates for service are very high compared with what stallion owners have to accept here in Canada, and as a consequence the large sums necessary to purchase a first class animal can not be paid by breeders or dealers from this side of the water. The only way our men can secure animals near the top is by buying young animals of the right kind and quality before their merits have been fully appreciated, this requires rare good judgment and skill—qualities which have been shown many times with good results by our Canadian buyers. During the past season "Prince of Albion" (6178) had a full season at \$50 service fee, and \$50 additional for foal money. Others have had a similar fee—\$100 each foal and \$50 for no foal, requires a good class of mares to pay the breeder. A very common rate is just half this—\$50 for foal and \$25 for service. The lowest rates for the better animals are \$15 service and \$15 more for foal. These rates are on a guarantee of eighty mares. This gives the stallion owner a sure \$1200 for the season and \$15 more for each foal.

The Secretary of the Clydesdale Society, in the *Live Stock Journal Almanac* of London, England, gives a tabulated list of awards; gives descendants of the best Clydesdale sires, and places them in the following order:—

- |                    |                       |
|--------------------|-----------------------|
| 1 Darnley.         | 6 St. Lawrence.       |
| 2 Prince of Wales. | 7 Prince of Avondale. |
| 3 Macgregor.       | 8 Lord Erskine.       |
| 4 Prince Lawrence. | 9 McCamon.            |
| 5 Top Gallant.     | 10 Castlereagh.       |

### Well Balanced Rations.

The following daily rations for cows are given by the Vermont Experimental Station. The formulas are intended to furnish ordinary cows of 1,000 pounds live weight the different elements of plant food in the most economical proportions:

Wheat bran 9 lbs., 3 lbs. linseed meal (new process), 10 lbs. corn stalks, 5 lbs. wheat straw, 3 lbs. oat straw.

Corn meal 8 lbs., 5 lbs. linseed meal, 10 lbs. corn stalks, 2 lbs. oat straw.

Cottonseed meal 3 lbs., 4 lbs. corn meal, 4 lbs. bran, 9 lbs. hay, 9 lbs. corn fodder.

Cottonseed meal 2 lbs., 2 lbs. linseed meal, 6 lbs. barley meal, 8 lbs. wheat straw, 12 lbs. hay.

Cottonseed meal 2 lbs., 3 lbs. linseed meal, 4 lbs. barley meal, 13 lbs. straw, 8 lbs. hay.

Linseed meal 5 lbs., 5 lbs. bran or middlings, 15 lbs. straw, 5 lbs. hay.

Gluten meal 4 lbs., 5 lbs. wheat bran, 3 lbs. corn meal, 20 lbs. ensilage, 10 lbs. hay.

Linseed meal 3 lbs., 4 lbs. bran or middlings, 4 lbs. corn meal, 10 lbs. clover hay, 30 lbs. ensilage.

Linseed meal 4 lbs., 30 lbs. ensilage, 9 lbs. clover hay, 9 lbs. timothy hay.

The following are calculated per head per day for milch cows weighing from 800 to 900 lbs.:

Linseed meal 2 lbs., 4 lbs. bran, 5 lbs. hay, 60 lbs. corn ensilage.

Bran or middlings 4 lbs., 40 lbs. corn ensilage, 40 lbs. clover ensilage.

Cottonseed meal 2 lbs., 4 lbs. bran, 1 lb. corn meal, 6 lbs. corn stalks, 6 lbs. straw, 2 lbs. clover hay, 30 lbs. mangolds.

For heavy cows, large milkers:

Corn meal 4 lbs., 2 lbs. cottonseed meal, 4 lbs. wheat bran, 2 lbs. linseed meal, 10 lbs. straw, 10 lbs. clover hay.

Corn meal 4 lbs., 4 lbs. cottonseed meal, 8 lbs. wheat bran, 16 lbs. hay.

Corn meal 4 lbs., 4 lbs. cottonseed meal, 8 lbs. wheat bran, 18 lbs. corn fodder.

Linseed meal 4 lbs., 1 lb. cottonseed meal, 5 lbs. barley meal, 5 lbs. cob meal, 16 lbs. corn stover.

Cottonseed meal 3 lbs., 2 lbs. bran, 30 lbs. ensilage, 17 lbs. hay.

For fattening cattle for each 1,000 lbs. live weight of the animals fed:

Linseed meal 6 lbs., 6 lbs. corn meal, 20 lbs. corn fodder.

Cottonseed meal 5 lbs., 20 lbs. hay.

For 800 lbs. weight:

Linseed meal 5 lbs., 3 lbs. bran, 10 lbs. rye straw, 10 lbs. hay.

Corn meal 10 lbs., 5 lbs. corn stalks, 18 lbs. clover hay.

Corn meal 10 lbs., 25 lbs. pea and oat hay.

For horses heavily worked per day per 1,000 lbs. live weight:

Linseed meal 2 lbs., 6 lbs. rye bran, 10 lbs. corn meal, 6 lbs. corn fodder, 8 lbs. clover hay.

Bran 6 lbs., 12 lbs. corn meal, 6 lbs. meadow hay, 6 lbs. clover hay.

Bran 2 lbs., 6 lbs. oats, 8 lbs. corn meal, 6 lbs. wheat straw, 8 lbs. meadow hay.

For horses at light work per 1,000 lbs.:

Oats 12 lbs., 12 lbs. hay.

Oats 6 lbs., 4 lbs. of corn meal, 3 lbs. wheat bran, 12 lbs. hay.

The *London Live Stock Journal* thinks "It seems very curious, considering that there is such a demand in America for action horses, that no society should be instituted to take up the interests of the Hackney. We believe there is a great future for the Hackney in Canada."

**Chatty Letter from the States.**

[From our Chicago Correspondent.]

January 13th was practically the first touch of winter weather that was felt in the great corn belt. Despite all predictions to the contrary the winter up to that time was no winter at all. This fact had an important bearing on all branches of trade. The woollen goods merchants, and in fact nearly all kinds of trades people were made to suffer by the unseasonable weather. The farmers and feeders did not escape. They could make so much many more pounds of meat than usual on the usual amount of feed that the markets were kept more heavily supplied than would ordinarily have been the case, and of course when there is a large supply the prices are correspondingly small.

The condition of western stock raisers at the present time is not especially encouraging, but the outlook is a little brighter than it was two months ago.

Cattle men are having to take very low prices for their products, and some of them are complaining bitterly, but others again take a very hopeful view of the situation. Judging from the large number who have been willing to pay good prices for store stock there are more of the hopeful than of the discouraged ones. It is certainly surprising what a strong demand there is for young cattle from farmers both East and West, especially when the fat cattle are selling at such poor figures, but it is only an exemplification of the saying, "Hope springs eternal in the human breast; man never is, but always to be blest."

Farmers have not taken very much pains with their fattening cattle, and have stood ready to turn them off at the first indication of strength in the market regardless of the condition. This of course has kept the trade in a strained and weakened condition. For instance, the new year opened with a substantial advance in prices, values advancing fully fifty cents in the first two weeks, with a strong healthy prospect in the general tone of the trade; but the second week of prosperity brought in 70,000 cattle, and on the Monday following, January 14, the actual receipts were 22,064 head, being 2,000 more than ever before received in a day. However the demand was very strong and the gain in prices was not entirely lost, and since then there has been another reaction favorable to sellers. The fact is that if farmers and shippers had not been so nervous and lacking in faith the indications are they would have fared much better.

The marketing of range cattle during the coming year is almost certain to be less than last year, and there is good reason for thinking that cattlemen will fare better than in 1889.

Hogs are selling about \$1.50 lower than one year ago, and the hog raisers are now as the cattle men have been, a little frightened and panicky, and are therefore playing into the hands of buyers.

Sheep continue to sell better than anything else on the list, and many who are deserting the cattle business are trying to find their fortunes in the "golden hoof" of the sheep. There now appears to be a shortage of good mutton sheep, and the demand is certainly stronger than it ever was before, but it is wise to remember that when people generally turn their attention to sheep raising it is much easier to multiply flocks than to overdo cattle breeding.

Following is a record of the extreme ranges of prices for different grades of stock at Chicago for the year 1889:—

BEEF CATTLE.

Months.	1200 to 1500 lbs.	1500 lbs. and over.
January.....	\$2.85@5.40	\$3.80@5.40
February.....	3.00@4.70	3.60@5.00
March.....	2.90@4.60	3.45@4.85
April.....	3.35@4.65	3.80@4.75
May.....	3.35@4.40	3.80@4.60
June.....	3.35@4.60	3.85@4.70
July.....	3.10@4.50	3.65@4.55
August.....	2.80@5.00	3.75@5.00
September.....	2.75@4.75	3.80@4.80
October.....	2.75@4.95	4.00@5.15
November.....	2.70@4.85	3.75@5.50
December.....	2.60@5.25	3.60@6.10

HOGS.

Months.	Heavy 260@400 lbs. Average.	Light 140@200 lbs. Average.
January.....	\$4.60@5.35	\$4.70@5.40
February.....	4.35@4.90	4.40@5.00
March.....	4.35@5.10	4.40@5.10
April.....	4.40@5.05	4.55@5.05
May.....	4.05@4.75	4.20@4.90
June.....	4.05@4.60	4.20@4.70
July.....	4.00@4.55	4.20@4.80
August.....	3.40@4.40	3.95@4.87½
September.....	3.50@4.45	3.85@4.85
October.....	3.75@4.40	3.80@4.85
November.....	3.45@4.10	3.40@4.25
December.....	3.35@3.80	3.35@3.80

SHEEP.

Months.	Extreme Prices.
January.....	\$2.40@6.00
February.....	2.50@5.50
March.....	2.50@5.35
April.....	3.25@5.70
May.....	2.00@5.00
June.....	2.50@4.90
July.....	2.75@5.10
August.....	2.50@5.15
September.....	2.50@5.00
October.....	2.50@5.10
November.....	2.50@5.37½
December.....	2.75@6.35

HORSES.

Months.	Draught Horses.	Streeters.
January.....	\$187.50	\$123.00
February.....	187.50	123.00
March.....	170.00	124.00
April.....	168.00	124.00
May.....	187.50	125.00
June.....	187.50	125.00
July.....	187.50	130.00
August.....	187.50	120.00
September.....	170.00	118.00
October.....	172.50	118.00
November.....	172.50	118.00
December.....	170.00	118.00

The market for all common horses is now very dull.

The supply of pure-bred cattle equals the present demand at any satisfactory range of prices. But the possible demand is far in excess of the supply.

Primrose, one of the brood mares at the Woodburn Farm, Kentucky, is now carrying her twentieth foal, and yet the oldest of her family is but twenty. With a single exception they are all alive.

No mistake is more injurious to young stock than high feeding and a lack of exercise. Give the colts all they will eat, but see that the exercise is proportionate to the grain consumed. Never neglect the exercise.

Farmers who refuse to pay a good price for good breeding stock of the improved breeds, should reflect upon the increased value of the young stock. Scrub stock does not pay at all; grain does not pay any better, and the only source of remunerative farming is the raising of improved stock.

The Arabs give their horses the very best care, and when weaned give the colt the milk of the camel. They put them to service at three years on a long march, in a gallop on the plains, to improve their muscle. The training is better than in England. Rich feeding, proper training for special service, appropriate work and exercise according to future work, to maintain the progress desired. One has said, "The mare produces the horse, but it is the oats that makes him run!"

**The Canadian Draught Horse Stud Book.**

Through the courtesy of Mr. Henry Wade we have received at the ADVOCATE office a copy of the first volume of the Canadian Draught Horse Stud Book, which contains the pedigrees of 243 stallions and 310 mares, or a total of 553 animals. In explanation of the necessity of this book we quote the introductory:—"As our draught horse breeders are aware, when the Clydesdale Horse Association took over the revision of the stud book from the Agricultural and Arts Association, the standard was raised, and as formerly many pedigrees were received that did not come up to the new standard of eligibility for mares of four top crosses of recorded sires (all of which must be Clydesdale), and that the Association might keep faith with the owners of these animals, an appendix was added to the stud book in which these pedigrees were recorded. With two or three exceptions the animals recorded in this appendix are all Canadian-bred draught horses, in which the Clydesdale blood predominates over the Shire. It was the presence of the Shire horse blood in the pedigrees that caused their rejection by the revising committee of the Clydesdale Association." Breeders of this class of horses were of the opinion that recording their stock in this appendix detracted from their value by giving a false impression of their breeding, they have therefore formed themselves into an Association, of which the book just published is the initial volume.

Although this class is mentioned as horses of mixed breeding, the standard is really qualified to produce the best individual, as they must have the required number of recorded Clyde or Shire crosses. Any one who saw this class at the last Toronto Industrial Show must have felt that there are great possibilities for them in the future, as the class was an exceptionally strong one both in numbers and quality, particularly in the younger sections.

A correspondent wrote, says the journal of the National Agricultural Society of Victoria, Australia:—"I wish all horsemen knew the value of sunflower seed. It is not only one of the best remedies for heaves, but a horse which has recently foundered can be entirely cured by being given half a pint twice a day for a while in his feed. Last autumn I took an otherwise valuable young horse, which was so stiff that you could hardly get it out of its stall. In two weeks you wouldn't know that anything was the matter with it, and it has been all right ever since."

An Australian who has been experimenting with the storage of wool, to determine whether it will increase in weight or not, gives this as his experience:—"I sheared a number of sheep in April, 1888, and stored it in a room 10x30 feet, the floor being three feet from the ground. The fleeces that I weighed and noted particularly were put on the top of 1,200 pounds. I sold my wool in August, and weighing these fleeces again with the same scales, which were in perfect working order, I noticed an increase of ¼ lb. to ½ lb. to the fleeces that ran from 10 lbs. to 13 lbs."

The weights of Mr. Kough's herd of Galloways, which appeared in the January issue, when shown were—Claverhouse, 3 years and 2 months old, 2260 lbs.; Countess of Glencairn, 4 years old, 1505 lbs.; Mary 4th, 3 years old, 1520 lbs.; Mary 5th, 2 years old, 1470 lbs.; Miss Steele 5th, yearling, 1310 lbs. The weight of General Gordon 4789 when a year old was 1104 lbs. Miss Steele's heifer calf, dropped at Toronto Exhibition on 15th Sept., 1889, weighed on 10th Dec. 360 lbs. Two half-bred steers sold last May at six cents a pound, live weight—cross between a Galloway bull on Canadian cows—one 30 months old weighed 1680 lbs.; the other, 31 months, weighed 1710 lbs.

### The Dairy.

#### SECOND PRIZE ESSAY.

#### What Steps Should be Taken to Improve the Quality of Milk Delivered at Cheese Factories.

BY JOHN ROBERTSON, GLADSTONE, ONT.

Educate the farmers and their families till they know something of the nature of milk and its composition, and how to handle it in the best manner possible.

The first question a farmer would be apt to ask is: "What's wrong with the milk that goes to the factory? We hear a great deal more about milk now than we used to do, when there was little or no fault found with it; how is that?" The simple reason is, some parties are now better educated than others in knowing what milk is, and how it should be handled. The buyers who handle the cheese from the factories are more experienced and are better educated in knowing the quality of cheese the market requires; and, also, the consumers who eat our cheese are better educated and their taste more refined. They require a finer quality than formerly. Now, if this educational progress is going on steadily with all other parties who handle our milk and its products, is it any wonder there is room for improvement with the farmer who sends his milk to a cheese factory about the same way, and knows no more about milk and how to handle it than he did ten years ago? I think he needs to be educated in his business.

But, "what's wrong with the milk?" is not yet answered. In order to improve anything, we must first know its weak points, and what is to be done to improve and overcome them. Taking the cows as they are at present, from what has been written and said about feed, most farmers ought to know more than they formerly did. Leaving this point, there is great room for improvement in the quality of the milk. First, in respect to the condition in which milk is delivered at the factory, in respect to its flavor and being properly preserved:—As far as my experience goes, this is now the most important matter in connection with our cheese industry. It does not matter how rich nor how honest the milk may be; if it is not properly preserved and brought to the factory in good condition, it is utterly impossible for any man to make a really fine cheese of it, no more than you could cure and make a piece of tainted meat sweet and clean-flavored. Milk, like all other animal products, has the elements of decay within itself, and only needs to be put into a can or other vessel and left alone anywhere in ordinary summer weather, when it will taint and spoil itself. I wish you could get the opinion of cheese makers on this and other points relating to the quality of milk. So far as I have learned, there were more gassey curds caused by tainted or not properly preserved milk last season than ever cheese makers experienced before. There are a few exceptions, but this has been the testimony of most makers I have seen. I have been told by many that this is where nearly all the trouble and worry of cheese-makers comes. Tainted milk is about the only thing you hear from cheese-makers during the summer months. Now, what steps are to be taken to do away with this nuisance? Educate. But how, or by

what means? 1st. This matter should be united with the Inspector's work, and where patrons of cheese factories send milk not properly preserved let the inspector visit the farmer and his family, and instruct them how to preserve their milk and handle it in the best manner. A good many now air and preserve their milk; but many don't; and after a patron has been educated how to take care of his milk, and sends it in bad condition, let the company to which he sends it refuse to take it.

2nd. Much good has been done by meetings of patrons, and the matter discussed; but here is another difficulty: A good many of the most needful do not come, and I see no way of reaching them but to visit their homes. Each factory company should have a meeting with their patrons early in the spring, and each director and the cheese-makers should get all the available information and help they can to inform and educate their patrons how to care for their milk.

3rd. There should be some agreement entered into between factories. Where a patron has been warned and instructed *re* his milk, and continues to disregard the instructions and his milk refused, no other factory should take it. In these would be the exception. I believe most patrons would try to do the right thing if they understood the matter correctly.

4th. Each factory should furnish the cheese-maker with a quantity of printed instructions, how to preserve and care for milk. And let the cheese-maker send one occasionally to every patron, and especially to every patron whose milk does not come in proper condition. On receiving this, the patron would know something needed looking after about the milk. And if this was not sufficient to bring the milk in good condition, then, refuse it, should be the order of the company. One can will spoil a whole vat, and all the patrons suffer loss and the reputation of the factory injured thereby.

#### Why the Holsteins Did Not Enter.

After reading the explanation given by the Holstein men for not entering the FARMER'S ADVOCATE competition, and picking out of it the "glass houses," "Rip Van Winkles," "chips," "report of a consular" (whatever that means), "some luck," "red rag," "stickling," etc., and passing them to one side as asleep, the abundance left enables us to conclude that they would like to send on their cows any time they got them in "shape." Also, that things in general should be advantageous for them. Our motives for entering your columns was simply to keep our Holstein friends in moderation. Mr. Rice, however, threatens us with another dose. Being well nourished when young, we have no desire for milk now. We think we can stand it, especially as it comes "free gratis." This would indicate that we are to get it in increased quantity, and we think it might not be out of place here to discuss it a little. It is well to know what an article is before we get too much of it. Our parents taught us to say what we had to say as direct as possible. On that advice we always aim to strike the target, and the bull's eye if possible, no matter what breed he is of. Milk being 80 to 90 per cent. water, we are decided in our opinion that less water and more of the really valuable portions is desirable. If we had to select a Holstein we would prefer a moderate milker, and this can be had almost anywhere, in any breed. Large quantities are so inseparately connected with the nervous

system that to lighten the load in this respect would be a long step in advance against parturient apoplexy, commonly known as milk fever, the scourge of all big milkers. The dread of this terrible trouble, we think, is the chief reason why our friends did not get in "shape." It is building on the sand to build on large milk records.

Our convictions, framed from experience, are, that moderate quantities are altogether the safest, more especially as the really valuable portions are to be found in equal quantity in moderate milkings, and also depending on the food supplied. Taking this into account we have long ago concluded, first, that the loose, open frame of this breed of cattle made them unprofitable; second, that the public records never came within hailing distance of private records, and dangerous in the extreme to follow; third, that the big record is often a bequest a year before the record maker flies hence; fourth, that big milkers in any breed are the most uncontrollable thing any herdsman can handle, and will land him into trouble and loss. Quality has no risks; quantity has endless risks. We also claim that as milk-producers on given quantities of feed they are not better than many others. Our business took us to one of the late international shows where a large number of Holsteins were exhibited. The time hanging a little heavy on our hands, we resolved to visit the Holsteins often, and, if possible, remove, by ocular proof at least, some of the objections we entertained of them. We had ten days to do this. We visited them three times a day, carefully noticed what took place. Everything cattle-life desired was furnished them; no home stable could furnish better in any particular; milked three times a day, no common farmer could possibly improve or even approach the care and comfort they received. To detail all we saw would be out of place here, but we unhesitatingly say none of our previous convictions were removed; nay, actually clinched. Very many of the cows were ordinary milkers. We saw the milkmen rise with less milk in their pails than our better half takes from her family cow. We also noticed that while other herdsmen fed from a common pail, the Holstein men fed from apparently a two bushel basket. We are certain that both articles were well adapted to the demands required of them. I hope your readers will take note of this, for in return for what we give any animal lies its usefulness to mankind.

An elegant and much admired display of prize ribbons, the winnings of a large herd, was made above the entrance to the Holstein department. While we were one of a group admiring it, a prominent person stepped forward, saying, "Yes, they are pretty, and have cost their owner one hundred dollars an inch." Truly a pithy saying with a mountain of meaning to all who wish big records. *We would now suggest that Smith Bros.' Holstein, that originated the Shorthorns, be kept in remembrance. This is the best record yet made by any Holstein. If Josh Billings can beat this saying of S. B., please point it out to us.* Why, the plebian things never had a herd book until a speculative Yankee saw into it. The world cannot expect scientific breeding from a people, many of whom sleep, eat and live with cattle, having just an inch board to separate them from cattle filth. Aim at the target, gentlemen. We have more shot in the locker, chilled shot, too. STOCKMAN.



### Why Holsteins Did Not Compete.

(Continued from page 12.)

First, as to Holsteins versus Shorthorns (be it remembered this attack has been invited), we have to say Shorthorns "cannot hold a candle to Holsteins" for dairy purposes, to prove which I do not need to go outside of Shorthorn breeders themselves. At a very recent meeting of Shorthorn breeders in Illinois, the question was discussed, or as one member put it, "The time has come when they should back up the assertion so often made that their cattle were both a milk and beef breed by actual test, or simply confine themselves to their superiority for beef production."

Judge Jones, a Shorthorn authority, was asked his opinion as a breeder, and among other things "he pointed out the disadvantages under which Shorthorn breeders would labor were they to compete for dairy honors, in rings or classes, against such cattle as Holstein-Friesians. \* \* \*

As against Herefords or Polled cattle he would not fear the result; but for Shorthorn men to enter a ring for a special prize against animals bred to excel in that capacity, he considered the contest would be rather a one-sided one."

The report adds:—"This seems to be the opinion of the members present."

Could a stronger testimony be asked by the greatest Holstein enthusiast than this given by rival Shorthorn gentlemen, who have had plenty of opportunities to learn the capabilities of the Holsteins, as there are plenty of them as well as Shorthorns in that State. But, although it cannot be claimed, Shorthorns have improved the milking capacity of our cattle here. I am sure Holstein would not desire to "send them back" to England, because they are a valuable breed for beef, and because I am sure Holstein men are not afraid of honest rivalry. In fact, 'tis said we always retain a certain amount of tender feeling for our "first love," even if we get no further than the engagement. There is room for all. At the only contest in all the state tests that I have seen reported, only one Shorthorn was entered, and she was the lowest of six or seven cows in this contest, all the rest being Holsteins. In fact, in this seven day test, the best Holstein produced double what the Shorthorn did. So, we see those Illinois Shorthorn breeders knew what they were talking about.

Again, at the late dairy contest in Chicago, Holsteins won first and second, the highest record being: Holstein, 65 lbs. 7 ozs. milk, 36.12 oz. butter fat daily; as against the highest of any other breed entered, 32 lbs. 9½ ozs. milk, 21.54 ozs. butter fat. These contests have been waged in every dairy state of the Union. Many thousands of dollars have been "hung up" in prizes, and the result is, "Go; tell it in Holland." Nineteenths of all the prizes offered have been won by the Holstein-Friesians, whether for milk or butter, which leaves just one-tenth to be divided up amongst all other dairy breed.

It will be seen that Holsteins have no reason to be shy of public tests; and it is to be hoped our large breeders will be able to come out in future, and not be satisfied to resting entirely on the laurels won by the American brother breeders; but it is not hardly to be expected, for obvious reasons, that they will be able to do quite so well until they "get their hand in" and find out, by experience, which cow will come nearest their capacity at home when in "public

life." It is a rule amongst Holstein breeders in the States never to enter a contest when they are not allowed to milk three times daily. If a cow is giving even no more than 60 to 65 lbs. daily, the owner would find it profitable, nay humane, to relieve her three times a day. Now, if that cow was taken to a public test, it would not be surprising if she "dropped off" to 50 lbs., or even 45 lbs., owing to excitement; and if a change of milking was made to twice a day, any one who ever cared for a cow knows that would have the effect of sending her further "off."

The fact is, practical dairymen will admit, that Holstein men have rights as well as other breeders, and can well afford to "hold off" from any dairy test if they think their hands are tied by the regulations, and an intelligent public will see fair play.

G. RICE, Currie, Ont.

### Sweet Cream Butter.

Again the bells of progress have rung out and confirmed the statements of advanced dairymen on the question of ripening cream. As claimed by this paper and others, the process of ripening cream is simply a chemical change which liberates the globules of butter fat and reduces the consistency of the caseous matter to such an extent that it can be eliminated more thoroughly, and thus a purer butter produced than by churning sweet milk. The extractor, it has been claimed, would accomplish this mechanically, and thus dispense with the necessity of ripening or acidifying. The *ADVOCATE* held the belief that it would, but declined to accept as final the evidence adduced. Cream separator men and their agents claimed that it would not. But now we find one of their own machines in the hands of the West Virginia Agricultural Experiment Station attaining the same end. The method adopted there is to separate the cream by centrifugal force, and proceed to churn at once. The sweet milk, corresponding to buttermilk in usual method, is then run through the separator again, and the amount of butter fat left in the milk, it is claimed, is frequently as low as one-tenth of one per cent. Mr. John I. Carter, Chester Co., Penn., says:—"Waste no time from the milk pail to the butter plate if you wish to make good butter." And from the opinions of experts who have sampled the butter of the West Virginia Station and of the separator, Mr. Carter is eminently correct. The Experiment Station sent samples of their sweet cream butter, and that made from cream ripened in the usual manner, to several experts, and in instances where the two were sampled without the expert knowing which was sweet and which ripened cream, he was unable to give preference to either; or, as one put it, both were the best. It is high time for feeder and dairymen to realize that the flavor of milk is largely due to the food of the cow, and that for best results the butter should be separated from the milk at the earliest possible moment. Much has been said in reference to the keeping qualities of sweet cream butter. We claimed in our November number that if the caseous matter was so thoroughly eliminated by a mechanical as a chemical process, the results would be the same. In proof of this we give the results of a comparative test by the editor of *Hoard's Dairyman*, an excellent authority on dairying:—"The extractor butter was taken from the Minnesota State Fair to Fort Atkinson, Wis., in an atmosphere of 85 degrees, and although the butter was in granules and ice cold at starting, it was one mass by the time it reached the refrigerator. A sample was taken from the Fort Atkinson Creamery and placed

beside it. At the end of a month both were sampled by Mr. Andrews, the butter-maker of the creamery, and he decided the creamery butter had kept the best. After seventy-six days had elapsed, a more thorough test was made by Mr. Andrews and Associate Editor Smith, and both decided there was no difference in the samples. "These matters are worthy of special consideration in this country, with excellent facilities for dairying, and it is doubtful if any other branch of farming gives better results at present prices."

### A Cheese Combine.

We take the following from the *Montreal Trade Bulletin*. It speaks for itself. We caution our farmers to beware how they sell their birthright:—

The legitimate portion of the cheese trade of Canada are naturally not a little exercised over the prospect of a cheese combine being inaugurated on an extensive scale during the season of 1890, especially as it is understood that steps have already been taken to insure the success of this illegitimate project, which if brought into operation will undoubtedly prove the greatest curse ever introduced into the cheese trade of Canada. The object of the proposed plan is first to obtain control of the principal factories in our most important cheese producing sections, by the consent of their representative managers and patrons, upon representations of the great pecuniary advantages that would accrue therefrom, and then to dispose of this control to English capitalists who in all probability would not be slow to avail themselves of the fancied opportunity of securing a monopoly of production, with all the benefits, privileges and profits which clever promoters of such schemes could picture to English investors in order to play upon their gullibility and induce them to take hold. It is stated upon reliable authority that certain combinations in Canada have so far favored this syndicate scheme, as to submit the refusal of the sale of their factories and plant at a stipulated sum until next March, the bait held out to the farmers being the high valuation of their factories, &c., which in many instances is said to be double and treble the original cost. This of course is sufficient in itself to win the affections of the farmers for the new cause at the onset, and it should therefore create no wonder, if as reported, some of our largest combinations have given in their adherence to the gilded scheme. The bait has no doubt been cleverly sugarcoated in its initial stage, as the farmers would naturally argue in this wise:—"If the promoters of this new enterprise can afford to give us such a fat thing on our factory buildings what will they do on our cheese, and why should we not give them all the control they ask for?" It is therefore very probable that the originators of this new "fandangleorum" may have been able to include privileges in the refusals already submitted, which will transfer to the syndicate every vestige of power and control of the cheese trade which the farmers now possess, and make them in the end dance like a cat on a hot iron. Let us for argument's sake suppose that the Allen Grove, Lilly Vale, Northern Spring Creek and Eagers Combinations, besides others in the Huntingdon and Hemingford district, should be under the exclusive jurisdiction of an English syndicate, whose agents on this side would no doubt be the original promoters of the combine. Imagine these agents having control of the sale of 20,000 boxes of cheese per month, what would they care

about the interests of the English investors on the one hand or the Canadian farmers on the other hand, so long as they could make a quick fortune by selling large quantities of cheese short in the English markets, and supplementing their short contracts by flinging on the market 20,000 or 40,000 boxes of cheese at one slap, in order to buy in the goods and deliver them at an immense profit? This operation could then be followed up by a temporary "corner" through buying large quantities of cheese at the lowest points of depression and then withholding the syndicate's cheese from the market until they unloaded at a big gain for themselves, when the market would be allowed to again drift into utter demoralization to favor their operations on futher short sales, wholly regardless of the interests of Canadian farmers and English investors. In other words, if the promoters of the present scheme can make satisfactory arrangements between the farmers on this side and the syndicate in England, they will be in a position to use the make of cheese under their control as a fulcrum to lift prices up or down in order to suit their speculative operations, and one season's manipulations would be quite sufficient to accomplish their object in making ample fortunes for themselves at the expense of everyone else in the trade. Are the farmers on the one side and the English capitalists on the other side, prepared to submit their interests to be thus ruthlessly shorn? We trust not. It is generally conceded that the present legitimate system of marketing cheese on the basis of supply and demand has worked well for the farming community of Canada, but let this be once substituted by the introduction of a combine whose agents will have the power of manipulating all manner of speculative feats for their own exclusive benefit by continually plunging the trade into convulsive disturbances, and the farmers will soon discover what a fatal mistake they have made, whilst English investors will find out to their cost how cleverly they have been duped and fleeced.

#### Ontario Creameries' Association.

Favorably located in relation to the largest creamery district of Ontario, Seaforth was wisely chosen for the fifth annual convention of the Provincial Creameries' Association, on January 14th and 15th. Butter making is pursued in Huron, Bruce, Perth and adjacent counties, as several delegates said to the writer, because it is so necessary to rearing the best class of stock, and they adopt the creamery because in systematic methods a product of uniform excellence is most easily attained. Profit is the result. The inaugural address of President D. Derbyshire, of Brockville, was spirited and hopeful, showing that 43 creameries are now in successful operation as against 31 in 1888. He believed that were creamery methods substituted for private dairying, the Province might be the gainer to the extent of \$2,700,000 annually. He advocated the silo.

Dr. Macfarlane, Chief Analyst of the Dominion, presented a carefully prepared paper on "Dairying in Denmark," the data of which was obtained chiefly from translations made by himself from the latest obtainable dairy literature of that country. One lesson of his paper was that systematic methods had increased the Danish butter output from 18,000,000 lbs. to 47,000,000 lbs. in ten years. Another point made was the demoralization of an industry resulting from excessive competition, imperfect factories and appliances, and careless methods, especially in

case of single proprietors operating without any regard to general system. It was also shown that large lots of butter uniform in quality though not of so high a grade command better prices than small lots though high in quality.

W. D. Hoard, Governor of Wisconsin, followed, giving an exhaustive and closely reasoned address on "The Nervous Temperament in Cows," describing in detail the peculiar conformation of bone and muscle and the peculiarities of action and disposition to be found in the perfect dairy cow. Her specific function, he said, was "motherhood;" that of the beef type "miserhood," which refuses to give back to man what she eats till she is brought to the block. That Governor Hoard has studied his theme thoroughly, may be inferred from the fact that he made 3,000 observations on the point of "umbilical development" as indicating strength of constitution.

Mr. John Sprague spoke of the silo and ensilage, which enabled him to treble his stock and double his products. He recommended stone walls plastered with cement.

Prof. Jas. W. Robertson, of Guelph, recently appointed Dominion Dairy Commissioner, delivered a thoughtful address, illustrated by diagram, on "Skill in Dairy Farming," in which he demonstrated that it pays the farmer best to sell skill, strongly commending the creamery system as more economical and profitable than the private dairy.

Dr. Macfarlane continued his description of "Danish Dairying," going into the details of their creamery management on the partnership or joint stock company plan, giving a copy of the by-laws governing the work. The paper contained suggestions that may be worked out with advantage in the Dominion, such as testing, inspection, and aids in the provision and supervision of foods.

The address by Governor Hoard, relating facts unearthed in his experience as a creamery owner and upon the cost of milk and pork production, excited the greatest possible interest on the part of the audience. As the result of the application of brains to dairying he said the best patron got a return of \$85 per annum from each of his cows, including the value of the skim milk returned, as against \$50 return secured by the patron at the other end of the list—a difference of \$35 in favor of brains. On the question of meat production the Governor brought out strikingly the importance of considering the cost of support-foods in feeding and the greater profit to be secured by early maturity in feeding.

Mr. J. K. Collett, of England, an extensive buyer, said the Canadian creamery butter was superior to the United States product, and the Canadian dairymen and their conditions could produce the finest butter in the world.

The convention endorsed the appointment of Prof. Robertson as Dominion Dairy Commissioner.

More questioning from the floor, and more thorough discussion of platform utterances, would have thrown a practical vim into the session that would have made the convention all but perfect.

Officers-elect for the year:—President, D. Derbyshire; 1st Vice-President, John Hannah; 2nd Vice-President, Aaron Wenger; Secretary-Treasurer, R. J. Graham. Directors:—J. Croil, I. Morgan, T. J. Miller, J. Sprague, R. Philp, J. Danier, D. McRae, W. G. Walton, J. S. Pearce, E. Miller, F. A. Walden and A. Wark.

#### West Highland Cattle.

Since the introduction of a small herd of West Highland cattle into this Province by Sir Donald A. Smith, there has been quite an interest manifested in them, and numerous questions are asked concerning them. From their name and origin, as well as their appearance, the idea would naturally be formed that they were a very hardy breed, and well adapted to our climate; and from what has been written of them, the same conclusion would be reached. Malcolm McNeil, Esq., of the Isle of Islay, the southernmost of the inner range of the Hebrides, says: "The value of the West Highland cattle consists in their being hardy and easily fed, in that they will live, and sometimes thrive on the coarsest grasses; that they will frequently gain from a fourth to a third of their original weight in six months' good feeding; that the proportion of offal is not greater than in the most improved large breeds; that they will lay their flesh and fat equally on the best parts, and that, when fat, the beef is fine in the grain, highly flavored, and so well mixed, or marbled, that it commands a superior price in the best markets."

Lewis F. Allen, in his book on American cattle, sums up their good qualities as follows: "They are an original breed, bred for untold centuries in one of the roughest climates; of great hardiness; homogeneous in their nature and habits; strong in blood, with a tendency and power to transmit it upon anything with which they may be connected."

Youatt says: "The flesh of the West Highland ox is considered of the best quality in the London markets, and usually worth one penny per pound more than that of the ordinary breeds."

On the other hand, the late Wm. McCombie, in his excellent work on cattle and cattle breeders, says: "The Highlanders on our land are not profitable; they do not grow nearly so fast as our own cattle (the Aberdeen Angus), and are more difficult to make fat. They are of such a restless disposition that they are unsuitable for stall feeding, however well they are adapted for grazing purposes in certain localities and under certain conditions. It would seem that if there are favorable conditions anywhere for these animals, it is here in Manitoba, and the result of their introduction will be awaited with interest."

A two-year-old steer, by a West Highland bull and a native cow, was recently slaughtered at Binscarth, by Mr. Almack, butcher of that place, that weighed, when dressed, over seven hundred pounds. Our opinion is that, even in this cold climate, the Galloways, Polled Angus and the Shorthorns, are much to be preferred.

Chicory has been successfully grown this season in Assiniboia.

OLIVER DUNN, Alexandria, Man., writes:—"I am very much pleased with the FARMER'S ADVOCATE, and will do all I can to get subscribers for it, as it is a good farmer's paper."

The Rupert's Land Industrial School for Indians, at Middlechurch, opened on Monday, January 6th. The following gentlemen are on the staff:—Rev. W. A. Burrell, Supervisor; A. W. Buckland, Mechanical Superintendent; Jas. Lawlor, Schoolmaster. Agriculture will be taught practically as well.

British Columbia spruce timber is being used in organ-building. The well-known makers of organs and pianos, Messrs. W. Bell & Co., of Guelph, sent a trial order for 25,000 feet of dressed spruce a few months ago to the Brunette Saw Mills Co., of New Westminster, and so great was the satisfaction it gave that the order has been repeated several times since. The firm are greatly pleased with the lumber and will continue to use it regularly.

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**The Farm.**

**Farming Affairs in Great Britain.**  
(From our English Agricultural Correspondent.)  
London, Jan. 2, 1890.

THE PAST YEAR.

It is at any time a difficult task to convince English farmers that they are not on the high road to ruin, and they dislike nothing more than any evidence of agricultural prosperity. Yet, if the truth must be told, it cannot be denied that the past year was one of the most propitious to the agricultural interest of the United Kingdom of any that has been experienced since 1878. The period of severe depression set in with 1879, known as the "black year," when the harvest was one of the worst on record. In the eighties we have had better harvests, as a rule, than in the seventies; but prices have been much lower, so that the money returns have been less. But rents and other expenses have been greatly reduced during the last ten years, so that farmers can live at current prices for agricultural produce if they get good crops, provided that they do not rely on grain-growing alone for their living. The year 1889 was the most generally prolific for farm produce all round of any that I can remember. Many better grain harvests have been reaped; but last year we had grain crops above average, a good hop crop, a phenomenally heavy crop of hay, great abundance of grass for feeding and of all other forage crops, and heavy bulks of roots and potatoes. The preliminary summary of the agricultural produce statistics, recently issued by the Board of Agriculture, gives the following estimates of the produce of the three principal cereals:—

WHEAT.

	Estimated total produce.		Acreage.		Estimated average yield per acre.	
	1889.	1888.	1889.	18-8.	1889.	1888.
England.....	B-hls. 60,400,608	B-hls. 68,159,216	Acres. 2,321,504	Acres. 2,418,674	Bshls. 29.89	Bshls. 28.18
Wales.....	1,572,557	1,541,149	68,464	76,828	24.43	2.36
Scotland.....	2,193,842	2,139,282	59,386	68,736	36.94	21.12
Gt. Britain.....	73,267,007	71,939,647	2,449,354	2,564,237	29.91	28.06

BARLEY.

	Bshls.	Bshls.	Acres.	Acres.	Bshls.	Bshls.
England.....	56,988,627	57,740,453	1,776,011	1,742,338	31.58	33.14
Wales.....	3,548,138	3,119,975	122,051	117,866	29.07	26.39
Scotland.....	7,842,054	7,630,661	225,468	225,357	35.09	33.86
Gt. Britain.....	67,478,799	68,482,089	2,121,530	2,085,561	31.81	32.84

OATS.

	Bshls.	Bshls.	Acres.	Acres.	Bshls.	Bshls.
England.....	68,216,705	64,836,319	1,623,967	1,616,344	42.01	40.11
Wales.....	8,150,208	7,521,038	249,022	250,513	32.73	30.02
Scotland.....	37,182,054	34,986,742	1,015,715	1,015,365	36.61	34.46
Gt. Britain.....	113,548,967	107,344,099	2,888,704	2,882,222	39.31	37.24

It will be seen that wheat and oats turned out much better in 1889 than in 1888. Below I show how the crops of 1889 compare with the official "ordinary averages":—

GREAT BRITAIN.

Crops.	1889.	Ordinary average.	Over average.	Under average.
Wheat.....	Bushels. 29.91	Bushels. 28.80	1.11	—
Barley.....	31.81	31.02	0.79	2.21
Oats.....	39.31	39.04	0.28	—

It is not surprising that barley comes out below the standard of production, considering how the crops were laid by floods of rain in July and part of August, the only wonder being that wheat and oats have done so well. My estimate of the wheat crop, made just after harvest had begun, was for thirty bushels an acre, and it will be seen that the official estimate is less than one-tenth of a bushel below that quantity. The official figures are for Great Britain only; but only a little over 95,000 acres of wheat were grown in Ireland, the Isle of Man and the

Channel Islands, and the crop was an excellent one; so that the average for the United Kingdom cannot be more than a decimal point or two less than that for Great Britain, if any less. The yield for the whole kingdom will be over nine and-a-half million quarters (eight bushels), allowing a million quarters off for seed and wheat given to live stock, we have fully eight and-a-half million quarters left for human food—or had at the beginning of the cereal year, Sept. 1. Our total consumption for the twelve months is estimated at nearly twenty-seven million quarters, and we shall require to make up an import of over eighteen million quarters. Whether we shall get the whole of what we require at the miserable prices now current remains to be seen; but I hope we shall be compelled to bid a little more liberally. The average price of wheat for the past year comes out at a few pence under thirty shillings a quarter—the lowest average of the past hundred years. Barley will come out low, though malting qualities have sold at 40s. to 50s. a quarter since harvest. Oats have been selling better than during the previous two or three years, but are still much lower in price than they were in the seventies.

If we had to consider the returns from grain crops alone, no favorable account of the year would be given; but live stock have made very high prices during the year, so that breeders have had a very prosperous year of it, while meat has also sold well, and dairy produce fairly—considering the extraordinary bulk of it produced during the season. It is many years since store cattle and sheep have been so dear as they have been during 1889. This tells against farmers who buy in lean animals to fatten; but then they have such a great supply of hay and roots, both of excellent quality, that feeding will be much less costly than usual, and if the price of meat keeps up for two or three months they will be able to make a profit if they chose their stores well, and keep them healthy.

WEIGHTS OF DIFFERENT BREEDS.

One of the most interesting records of the recent Smithfield Cattle Show is a table showing the average live weights and ages of the cattle and sheep of different breeds in the several classes for those under certain ages, as it gives an approximate idea of the relative weights of the different breeds, and of their tendency to early maturity. It is given below:—

CATTLE.

	Bullocks three years.	Four years.	Heifers four years.	Cows over four years.
Devon.....	1,062	1,579	1,758	1,452
Hereford.....	1,328	1,760	2,168	1,736
Shorthorns.....	1,489	1,871	2,137	1,620
Sussex.....	1,403	1,844	2,050	1,694
Red Poll.....	—	1,893	2,043	1,496
Black Poll.....	1,462	1,815	2,223	1,667
Welsh.....	—	1,773	2,223	—
Highland.....	—	1,297	1,356	1,517
Crossbred.....	1,395	1,822	2,112	1,762
Kerry.....	—	884	1,166	1,026

SHEEP.

	Wethers 12 to 24 months.	Ewes over three years.	Lambs under twelve months.
Leicester.....	252	290	144
Cotswold.....	317	283	192
Lincoln.....	301	338	176
Romney Marsh.....	252	296	163
Devon.....	244	—	149
Southdown.....	204	203	142
Hampshire.....	259	295	193
Suffolk.....	275	276	177
Shropshire.....	237	235	157
Oxford.....	281	274	177
Cheviot.....	218	—	—
Blackface.....	181	—	—
Dorset.....	269	279	193
Crossbred.....	271	—	190

Of course the comparison is not to be taken as decidedly showing the relative weights of the breeds, as it may be that the average age of one breed in a particular class (under two, three or four years with cattle) is less than it is in the case of another breed; but such records for several years would allow of a fair comparison being made. It will be noticed that the breed which is heaviest in one class is not always so in another class. For example: The Welsh and Aberdeen-Angus four-year-old bullocks are the heaviest, each averaging 2,233 pounds, while the Herefords come next, and the Shorthorns fourth. But the Shorthorns are first in the two younger classes, which speaks well for their early maturity. In the sheep classes the Lincoln ewes are the heaviest, next the Leicesters, and then the Cotswolds; but the Cotswolds are first in the wether classes, the Lincolns coming second, and the Oxfordshires third. In the lamb classes the Hampshires and Dorsets are equal firsts, while the Cotswold average is only one pound below theirs.

COCOANUT BUTTER.

The newest thing in food is what is called "cocoanut butter." It is the invention of Dr. Schlunk, a German chemist, and is now being made by a German firm at the rate of 6,000 lbs. a day. The price is 6d. to 7½d. a pound, as compared 1s. to 1s. 2d. for real butter in the same part of Germany. The cocoanut contains 60 to 70 per cent. of fat, with 23 to 25 per cent. of organic substances, 19 to 10 per cent. of which consists of albumen. It is not difficult to imagine the creamy extract of the cocoanut being churned into butter; but whether any chemicals are used to set it or not we are not told. Possibly some milk is churned with it to give it a butter flavor, as in the case of margarine. It is said that some people who have tried it prefer it to margarine. No doubt the vegetarians will be delighted with this substitute for an animal product.

OIL IN LINSEED CAKE.

A very instructive experiment has been carried out by the Norfolk Chamber of Agriculture, as described by Mr. F. I. Cooke, in the new number of the Royal Agricultural Society's Journal. Modern machinery extracts nearly all the oil from linseed in making cake, leaving only five to six per cent. behind, as a rule. The makers, backed by certain chemists, have tried to persuade farmers that the other constituents of the cake are of greater feeding value than the oil; but this little fiction has been pretty well disposed of by the experiments in question. Sixty lambs were divided into two lots, so nearly equal that the aggregate weight of one lot was only three pounds heavier than that of the other. They were fed for nearly four months in exactly the same way, except that the linseed cake given to one lot contained about fifteen per cent. of oil, while that given to the other lot contained only about six per cent. The result was that the lambs fed on the cake rich in oil increased in aggregate weight by 1148 lbs., while the other lot increased by only 1002 lbs. There was thus a difference of 4½ lbs. live weight per lamb in favor of the lot fed on the cake rich in oil, and the extra value was about 2s. 5d. each, while the extra cost of the food was only 8d. to 1s. each.

It is stated that the Hackney stallion Triffit's Fireaway, which died recently in Yorkshire, Eng., at the age of thirty years, had earned by his descendants in prizes and prices upwards of a million dollars.

### Mr. McClure's and Others' Experience with Ensilage.

Enclosed please find \$1, my subscription to the FARMER'S ADVOCATE for the year 1890. I consider the ADVOCATE very cheap at \$1 per year, and think no farmer, for the sake of \$1, can well afford to do without such valuable information as appears from time to time in it, for we will all soon be forced to the conclusion that it is only by intelligence received and applied to the principles of farming that the farmer can in the future hope to succeed. As an advertising medium the FARMER'S ADVOCATE is first class, as since my two letters of June and July I have had a great many enquiries for my grade Jersey stock. This reminds me that I promised to give my experience with ensilage. Well, after only about two months trial, I feel that I would still rather be a learner than a teacher about ensilage. This much I can say, our cows are looking more like grass-fed cattle this year than ever before, and that they are all fond of it, and also the fact that we have made a higher average per cow last year than ever before, having made an average from our fourteen head of 305 lbs. of butter each, after supplying a family of nine with cream and butter all year—290 lbs. was the highest we ever reached before. I do not claim all this increase for ensilage, as our cows are more mature than ever; also, I think the cows have received better attention all through last summer than during former years. How did we put in our ensilage? Well, we gathered a lot of good neighbors and put it in right along, covered it up with cut straw as soon as through putting it in, and put no weight on it. It opened very nicely, and if the frost expects to reach it it must first get down to the forties. I would like if you or any of your numerous readers could enlighten me on a few points. I find by experience and reading that there are some plants which are in themselves a more perfect ration than the corn plant, such as pease and oats mixed, red clover, lucerne, and some others. What I would like to know is this, Would those do to put into a silo so early in summer; would there be danger of the heat being too great the ensilage thereby getting sour; also, would very sour ensilage have any influence on the flavor of butter? Wishing you every success for the New Year, I remain, yours truly,

JOHN MCCLURE, Brampton, Ont.

Corn and little else has been put in Canadian silos. Pease, oats, millet, rye, clover, and many other forage plants have strong advocates of their merits for ensilage. Indian corn is, however, the great ensilage crop of America, and clover ranks second. Corn should be put in when it commences to glaze, and clover, rye and other plants a little before this stage. Messrs. Learnd & Co., of Springfield, Ohio, writing on this subject, say:—"Corn, with alternate loads of mammoth red clover, or pease and oats, makes the best ensilage. We have tried corn alone, but it does not make as sweet ensilage, nor give as good results. We commence filling our silo when the ears of corn are glazed. Last year we opened our silo in November and fed the silage to sixty cows, gave each about forty-eight pounds mixed with a moderate feed of bran or meal. They had what hay they would eat, and came out in fine condition. This is the third season we have used ensilage, and are more pleased with it each year."

Prof. W. A. Henry, of Wisconsin, writing to Hoard's Dairyman, says:—"Our experience in putting up clover for ensilage, has been so satisfactory that I hope farmers generally will give this subject some attention. Instead of making poor hay out of good clover, if the season happens to be rainy, cold and wet just at cutting time, I think it would be cheaper to rake up the green clover and carry it at once to the silo. Rain and handling injures clover materially. Green clover is heavy stuff to handle, but better handle it twice when green than so many times, as we frequently have to in order to make poor hay in bad weather. The old revolving rake is the best tool to gather green clover."

Messrs. Smith, Powell & Lamb, of Syracuse, N. Y., say:—"Green oats make a large amount of ensilage, but do not serve so good a purpose as clover. Oats and clover mixed answers finely. Two and one-half tons of dry clover make ten tons of ensilage. A feeder gets the actual benefit of one-fourth of his dry hay. Fifty to sixty pounds of ensilage will keep a cow in better condition than twenty-five pounds of dry hay. We have great confidence in thus using clover—our cows thrive better and give better milk now than formerly. All grasses will make ensilage, even weeds and Canada thistles can be thus used."

Prof. Albert J. Cook, in his excellent work on "The Silo and Silage," just issued, says:—"Beyond question corn is the most profitable crop for silage. It is a very sure crop. It grows very rapidly; and we get a large yield per acre. From twelve to thirty tons are grown on an acre of land. As three tons of silage are worth one ton of the best hay, this is equal to from four to ten tons of hay per acre. Again this is the cheapest way to harvest corn, and puts it in a small barn space. Clover, millet and Hungarian grass can be more easily and cheaply harvested in the usual way. Though, without doubt, it will pay well to convert clover into silage. This mixed with corn will make superb food for our stock. There is very little doubt but that the silo is the place for our clover and our corn. From my experience I have reason to think corn (of course I mean corn stalks and all) as silage a pretty good food ration alone. If it is desired to add more albuminoids, bran and oil meal are easily obtainable. It is quite certain that it will pay to make silage of clover, and mix this with the corn silage in feeding. I have had no experience in this clover silage, but am arranging to convert all my clover as well as corn into silage. We know that variety in any food ration is relished, and so we may believe is wise and desirable. My success with corn silage has been so marked and satisfactory that I believe it to be of first importance and highest value."

"Two points can not be too much emphasized. Never, except that an untimely frost forces us to it, fill the silo until the corn is beginning to glaze, or mature enough to cut, were we to cut up and husk in the old way; and never put any crop into the silo while at all wet with rain or dew. If either of these rules are disregarded, the silage will be less nutritive, and more sour. I have observed both these rules in preparing my silage, and it has ever been sweet to the taste and almost without the sour odor so common about the older silos. I have visited silos where the silage was sour, both from too early filling, and from filling while the stalks were wet. Just

here is explained why the early silos and silage gained an unsavory reputation. The corn was put in, at a great loss, while not more than half mature, and the silage was sour and unwholesome. Dr. Peter Collier, while chemist in the Agricultural Department, showed that the increase in nutritious elements in corn was exceedingly rapid towards the period of maturity. Prof. I. P. Roberts shows the same thing in Bulletin No. 4, of Cornell University."

### A Letter From New Zealand.

In a private letter from New Zealand, the following items of interest are gleaned:—The three islands that compose New Zealand are altogether a little larger than Ontario. Much of it is high and mountainous; that part is being mined, and used as sheep runs. It is really a fine little country, and the climate suits most people. Gold is found in almost every part, but thinly scattered; even in some of the small streams gold can be collected, but in very small quantities. Grain is a most bountiful crop, wheat yielding as high as 70 and 80 bushels an acre. Oats, up to 100 and 120, and occasionally stand high enough to be over the back of a tall horse. Potatoes and turnips are a wonderful crop, but unfortunately freight kills any attempt at export trade in cereals. The dairy industry is advancing slowly. Good cows are hard to obtain. The farmers, as a class, are from the cities of England, and therefore know little of their business. More population is required to develop the country, and the government should be more liberal in their land policy, it being held entirely out of reach. Much of the country is wooded; the bush, as it is called, having a semi-tropical aspect, and difficult, or rather impossible, to travel through until cleared of the vines and creepers which abound. The native birds are all different from the northern hemisphere except the wild duck. There is no quadruped a native of the islands, but the English rabbit has been imported and overrun the whole country, sometimes running in such numbers as to give the earth the appearance of moving in waves. They help many a poor man to earn a living in destroying them, but are hard on farmers. One company owning a tract of land, of which they crop part and run sheep on the remainder, although the skins sell well, it cost the company last year over what the skins brought, £1,400, to keep down the rabbits. Some years the cost is still greater.

Sir William Lawes, a great authority, has cut down previous estimates of the wheat crop of Great Britain by 1,000,000 quarters of eight bushels each, putting the figure at 8,733,725, and the deficiency to be supplied at nearly 19,000,000 quarters. But this estimate is not at once universally accepted. At the same time, it is probably about as near the truth as it is possible to get.

In spite of the efforts of the Dairymen's Association, the manufacture of butter and cheese, we regret to say, is growing less in Quebec, though in Ontario it is on the increase. Strange; for there is no country to which the dairy industry is better suited than in that province. Grain and roots may fail; potatoes rot and wheat freeze; but the pastures always yield well. Growing hay for sale is sure to impoverish the farm; feeding off the grass, on the contrary, improves the land. No system of farming is so certain to yield a profit at so small an expenditure of labor as dairy-farming; the only absolutely necessary part of it, a part too much neglected by our people, is the proper feeding of the cow in winter. A cow well kept during the winter will give a considerable profit; neglect her six months out of the twelve, and she will hardly pay for her keep.

**The Management of Agricultural Exhibitions.**

BY W. A. HALE, SHERBROOKE, QUE.

As agricultural exhibitions vary so much, not only in size and importance, but also in the mode in which they are carried on, it seems best to consider first the most desirable form of association under which they may be profitably managed, and then to endeavor to frame a code of procedure which, in a way, will be applicable to all. The old time county show, suitable as it may have been to the period in which it first saw the light, is like the primitive custom of "boarding round" the school teacher, happily giving way to better systems more in accordance with the agricultural progress of the times. Doubtless there are, and probably there always will be, sections of the country where the county show system will still be unavoidable, but wherever it is possible an endeavor should be made to form an organization for the purpose of carrying on the work on a sound and permanent business basis. The time is coming when it will seem even more incongruous than it now does for governments, whether they be Dominion or Provincial, to manage our exhibitions. From a financial point of view they certainly cannot be considered in any other light than failures, and the lavish and extravagant expenditure of public money which they involve, together with the political patronage from which they seem to be inseparable, should be excuse enough for their being entirely severed from government control. Grants of money from governments to assist in carrying on exhibitions are quite another thing, and when they are not accompanied by too many conditions, are generally as judiciously expended as they are appropriately given. Where municipalities will assume the responsibility of carrying on agricultural and industrial exhibitions they are, as a rule, successfully managed; but as these instances are comparatively rare, the method most likely to meet the requirements of the majority of the cases seems to be that of a joint stock company, with an active president, vice-president, a board of directors, an executive committee and a secretary-treasurer, on a paid salary, who may be managing director as well. From the stock subscribed a well chosen site should be purchased, buildings and fences erected, and the grounds improved and put in proper order for holding agricultural, horticultural and industrial exhibitions, and in many cases an annual grant from the town, near which the association's buildings are, may be obtained in return for allowing the public the free use of the grounds during certain hours of each day for such purposes as driving, cricket, lacrosse, tennis, etc., etc.

As soon as the association is in working order, or at as early a date as possible, the time for the exhibition should be claimed and made public and the prize list made out. In preparing this it would be well if the directors avoided the too frequent practice of discriminating between the various breeds of horses, cattle, sheep, &c., by giving larger prizes in some classes than in others, or by leaving out some entirely, or even by grouping several varieties into one class. It is far better to allow the public to judge for themselves which they consider the most desirable breeds.

Medals, no matter of what metal, should always represent a first prize, and so also should

diplomas. In machinery and manufactured articles it seems wise that they, as a rule, should not be charged for space nor entered for competition, and in recommending diplomas great caution should be used not to make them appear of too little importance, nor so worded as to give them the color of awards for any competition merit.

[TO BE CONTINUED.]

**Experiments with Fertilizers.**

The following experiments on the potato crop, grown with different fertilizers, were conducted during the past season at Capelton Pane, and although it is a mere repetition of many similar ones carried on by the most skilful agricultural chemists that the world is able to boast of, there is always a certain amount of interest in those conducted at home that foreign ones cannot claim, while the highly satisfactory results may lead other farmers to follow:—

The field selected was a very poor one, having a light sandy soil. Last year potatoes were planted, but the crop was not worth gathering. The year previous barley had been taken off. The season commencing early, ploughing was able to be done on the 26th April, which was all the land received, except well harrowed one week later. On the 9th May the Early Rose variety of potatoes were planted. Plots were accurately measured out, and each received a different fertilizer, with the exception of one, which was rather a richer piece of soil, and got nothing. The results were as follows:—

No.	Fertilizers.	Crop per acre.
		Bushels.
1.	No manure	138. very small
2.	1,000 lbs. superphosphate	242. good
3.	250 lbs. sulph. of ammonia	196. many rot'n
4.	1,000 lbs. superphosphate	204. good
5.	1,000 lbs. superphosphate	206. very good
6.	155 lbs. muriate of potash	272. "
7.	250 lbs. sulph. of ammonia	164. small
8.	150 lbs. muriate of potash	484. very large

Potatoes being a crop that demands a large supply of potash, the muriate of potash might be expected to yield a very large crop, but in comparison it was very small. Not until the other necessary ingredients were supplied does it show its appreciation of the plant food; so with ammonia and potash, it is 272 bushels, while superphosphate and potash makes the crop 206 bushels. Not, however, till all three are supplied, which was done in the case of "Victor," complete fertilizer, is the highest result attained, when the extraordinary crop of 484 bushels per acre was dug. Now, if such crops as these can be grown every year, we have a bright future before us; and there certainly seems little doubt that the majority of us in Eastern Canada are farming under apparent difficulties, which may be readily overcome by accepting nature's abundant provision, and making use of the supply of phosphates we have so largely, both in Upper and Lower Canada. Indeed we can hardly call it a difficulty, if the British farmer sees his way over it by buying phosphate from us, three or four thousand miles away from him, while we attempt to do without this very panacea that he feels to be an absolute necessity.

The fertilizers I may mention were supplied by Messrs G. H. Nichols & Co., Capelton Chemical and Fertilizer Works, who took a lively interest in the experiments, and greatly aided in their success by supplying the desired chemicals.

H. WIGGLESWORTH,  
Capelton, Que.

**The Pioneer Shorthorns.**

This is the name given the herd of Mr. Walter Lynch, near Westbourne, Man. Mr. Lynch came from the township of Lobo eighteen years ago, and with him the foundation of his present herd. He has kept the true Shorthorn type in view in all his selections, and while we have seen larger herds costing their owners twice as much money, and herds containing a few animals of equal merit, we have yet to see as even and good a lot all round—that is, embracing every animal in the herd. This herd has never been placed before the public by advertising except at the fall fairs, but the young bulls have in most instances been unloaded as stock bulls. Sickness is almost unknown here, as there are no pampered animals. The calves, among which are a fine lot of bulls, are allowed to run out and in doors during the day as they feel disposed. We thought them exposed too much for their comfort and their owner's profit, as they will of necessity consume more feed. Mr. Lynch, however, claimed it was to the advantage of the buyer as it gave them vigor and stamina.

At the head of the herd stands Duke of Colonus = 9282 =, bought from Messrs. Smith & Sons, of Maple Lodge, near London, Ont. He is a fine specimen of the Bates tribe, as might be seen at a glance. He is now five years old and in excellent form and a credit to the herd. He was bred by Mr. Murray, of Chesterfield, and got by the Bow Park bull, 54th Duke of Oxford = 3104 =; he by 4th Duke of Clarence = 79 =. Duke of Colonus is one of the most elegantly proportioned bulls we have seen. A fine head, well set on a graceful, stylish neck, straight level back, well sprung ribs, very full in the crops, a breast seldom equalled and his flanks let well down gives him a grand underline; has an excellent twist and fine rumps. As he was only purchased last spring there are no calves from him yet, but he cannot fail to produce excellent stock from this herd, which has been bred along the Bates line continuously with the exception of one Scotch outcross.

Prairie Belle = 10327 = is a straight, even, thick fleshed cow, good in almost every point but lacking in style. She is a daughter of Cupid = 2995 =, an animal of superior breeding. Kitty = 15817 = is a fine, stylish four-year old cow, very even and thick-fleshed, but rough about the horns. Faith (number not allotted) is a rich roan with white underneath. This is a fine thick-fleshed cow of great substance and particularly good in the fore ribs, with an excellent top line and well let down in the flanks. Truth (number not allotted) is a full sister to the last mentioned and is equally good. She has a bull calf that will prove a decided acquisition to some herd. Rose of Totogan 2nd = 16677 = is full sister to Faith and Truth, and is a dark red in color. Although but five years old this cow has raised three fine calves. Ro-settes 5th = 10687 =, 6th = 10688 = and 7th = 10689 = are three sisters, dark red in color, of fine general contour, carrying their flesh in the right places, and with nice head but for the horns of each being a trifle long and too upright.

Pussy = 10428 = is a fine five-year old cow, a beautiful roan that has not as yet suffered defeat in the show ring, although repeatedly shown in good company. She carries a wealth of flesh on the best parts, and although never specially fitted for the show ring, being fed only on hay

and grass, would prove no mean competitor in the best shows in Ontario. She is certainly a grand cow and the best of the herd. Rose of Totogan =10676=, now ten years old, is a fine dark red, almost a solid color. She is a large, strong cow and past her prime, but has been of great value in building up the herd, being mother and grandmother of quite a number of them. She is a daughter of Cupid =2995=, and is still valuable for her progeny. Mermaid =15818= is a four-year-old, of good general outline, not quite as good in the crops as we would like but with an almost perfect loin. She is the mother of a grand heifer calf, Waterwitch, which will be heard from in the future shows if she meets with no reverses. In one stall stands Silver Gem and Imogene, two fine two-year-old heifers. Imogene is a beautiful rich roan, but has not as well a sprung rib or as good a fore rib as Silver Gem. In another stall are Rebecca and Julia. Of these Rebecca is especially fine in color and form. These cattle handle very well indeed, although not kept in quite as high condition as is generally considered profitable. They are not by any means in a hungry condition however, and are well worthy of a visit of inspection to those who care to see fine stock; not a cull or grade of any kind about the place, all being animals of intrinsic value. Mr. Lynch has won many prizes, but none that seems to create such pleasant recollections as when he won the herd prize at Portage la Prairie last fall, when his cattle were taken off the grass and driven twenty-five miles to compete victoriously with a herd imported from the great Scotch breeder, Campbell, of Kennellar, Scotland. He has won fifteen first and one second herd prizes in sixteen years. The stables are models of neatness and cleanliness. Ample provision is made for ventilation, a matter greatly neglected generally, and the floor on which they stand is elevated a few inches above the floor behind them, thus securing a dry place to lie on and much greater cleanliness.

Souris wants a cheese factory, and has offered to guarantee milk from two hundred cows to begin with. There is certainly a good opening in Manitoba for cheese makers.

Mr. Davey, of the Sanford Ranch, at Westbourne, reports the stock doing well. There are in all eight hundred cattle kept, and of these twenty-five are pure-bred Herefords, and about seven Polled Angus. There are also one hundred and fifty horses, of which four are Clydesdale, one stallion and three mares, and one Cleveland Bay stallion. But a small portion of the stock is being wintered at Westbourne, as the hay was a poor crop in that vicinity this season.

The English Agricultural Gazette says:—The value of the exports of live stock (from Britain) still keeps in advance of that of last year, the total for the ten months ended October 31st being £1,010,452, against £906,160 in the corresponding period last year. Of horses the value was £850,690, against £727,014 last year. There were altogether 12,095 horses exported, against 11,094 last year. Of stallions the numbers were 2,717, against 3,169, the value being £360,316 against £318,092, so that with a smaller number the value increased. Of these 573 went to the United States, against 584 last year, the value being £46,212, compared with £41,901. There were 1,271 sent to British North America, against 1,782 last year, the value being £102,067, against £155,144. "Other countries" took 781 against 648, the value having risen from £98,528 to £199,417. There were 4,981 mares exported against 4,824, the value being £305,607 against £278,588. Of these 397 went to the United States, compared with 685 last year, while 1,139 went to British North America against 838 last year. Of geldings the number sent out was 4,397 against 3,101, the value being £184,767 against £130,334 last year.

### The Cowbird.

It is a matter of public notoriety that the cowbird leaves the hatching of its eggs and the care of its young to the tender mercies of other birds, usually smaller than itself, but it is not so well known that very often this intruder, by its large size and rapid growth, absorbs the attention of its foster parents, and the legitimate occupants of the nest are first starved and then thrown out of the nest, the result often being that when the intruder is full grown it is the sole occupant of the nest, having caused the death of from three to five small birds, any one of whom would far exceed its murderer in usefulness.

Therefore every farmer would be doing a service to himself if he would endeavor to lessen the number of cowbirds in his neighborhood, and thereby directly increase his stock of insect-eating birds in the succeeding summer.

There is, however, a bright side to the cowbird question, and that is found in the fact that while the supply of the celebrated reed bird of New York and adjacent cities, consists chiefly of red-winged and rusty blackbirds, the number of cowbirds entering into it is no small one, and as the other birds decrease we may hope to see the latter species form a larger proportion of the total bulk consumed, until its numbers become so far reduced that we shall not seriously notice its baneful presence.

### Care of Colts and Young Horses.

One of the best breeders of draught horses in Ontario recently remarked that the stomach of a colt was the best market for oats. At the current Ontario prices this is undoubtedly true. There are few instances, indeed, in which it will pay to let the colts lose flesh in the winter, or at any other time, for that matter. The young horse usually grows until about five or six years of age, and the time lost then is that much lost in size, and consequently in value. A horse fed properly during the first two or three years of his life will keep on much less food than the one that has been half starved. And the thrifty well-cared-for animal will resist disease and attacks of epidemics much better than if the vitality is reduced by starvation. James Law says in the Farmers' Veterinary Adviser, "All that contributes to robust health favors the resistance to contagious disease." In a climate like this, ground corn and oats in equal quantities make an excellent winter ration for young horses. But, as corn is almost out of the question, oats may be fed alone with excellent results. While grain may not make as much of a show the first winter as afterwards, it really does more good. Shelter too is of the utmost importance at that age, and is almost an absolute essential to life itself, much more to good thrifty growth. After the first winter colts will do fairly well without shelter, if they are well fed and not handled at all; but, if handled, that is, carried or driven, it opens the pores of the skin, and they do not stand the cold nearly so well.

A farmer in the vicinity of Totogan raises a large number of horses in this manner, and it is claimed with a good profit. He finds that, with proper attention and care the first winter, they will keep in good condition after with what they can pick on the prairie. While it is sometimes advisable to drive the colts enough to make them handy the second winter, they must be kept in the stable, and should not be worked the following summer, as that is the time they fill out most; and if this time be lost for this purpose, it is never regained.

### Calf Flesh.

The flesh the calf has on when it is dropped is the most valuable that it ever has. As long as it carries this flesh it is a thrifty grower and hearty feeder, but let it lose this and it has lost much of its value. In a paper read before the Scottish Chamber of Agriculture, the late Wm. McCombie said, "What I wish to impress on you is, that you must keep the cattle always full of flesh, and as a breeder you must be careful not to lose the calf flesh; if you do so, by starving the animal at any period of his growth, you lose the cream—the covering of flesh so much prized by all our best retail butchers. Where do all the scraggy, bad-fleshed beasts come from that we see daily in our markets, and what is the cause of their scragginess? It is because they have been starved at some period of their growth, and the calf flesh once lost can never be regained. A great deal of tallow may be got internally by high feeding, but the animal can never again be made one that will be prized by the good retail butcher."

This is a matter well worthy of the consideration of the breeders of pure-bred stock intended for breeding purposes, as well as of the ranchman or farmer. This is one reason why many of our breeders always have their stock in the pink of condition. They can be kept on what would keep alive a beast that had been starved the first two years of its life. Another valuable "pointer" given by the same authority is this, "Cattle feeding in the stall should be kept as clean as the hunter or valuable race horse, and their beds should be carefully and regularly shaken up." Very few of our cattle men give this matter proper attention. Stacks of straw are burned on the ground that might well be utilized in making the stock comfortable in winter. Comfort is conducive to thrift, and thrift only yields a profit. The flesh in itself might not prove a serious loss, but for the fact that with it goes to a great extent the ability to lay on flesh. Thus it pays to finish the unthrifty ones first, or better still, sell them to someone else to finish and feed the better ones longer; or as a very successful feeder puts it, "Fatten the culls and winter the tops." This is a matter of vital importance to this country, where the facilities for raising cattle are so great. True, cattle sometimes do yield fair returns when badly wintered, if cheap pasture is available in summer, but not as good as if they had been well fed in the winter months.

Notwithstanding the unusually dry season just past, there is no probability of a scarcity of hay this winter. Ten miles north of Birtle hay is selling at \$3 per ton. This seems to be the ruling price in many localities north of the Manitoba and Northwestern Railway.

Mr. McArthur, of Kelloe Station, informs us that the farmers in his locality have realized about thirteen cents per pound for the butter manufactured at the creamery in that locality. There must surely have been a screw loose either in the making or selling, as fifteen cents should have been realized for a first-class article this season. These figures are of course after deducting the expenses of making and selling.

Mr. Thomas Speers, of Bradwardine, Manitoba Park Region Stock Farm, has purchased the Shorthorn Bull Heir Apparent (51380) 75300, bred by J. W. Courtney, Slackdale, Turriff, Scotland, imported by Hon. M. H. Cochrane, and afterwards sold to A. Williams for his Pinketh Stock Farm, where he has given entire satisfaction as a stock bull. Mr. Speers reports the rest of his Shorthorns doing nicely.

**Our Subscription Prize for 1890.**

Every farmer should send in one new name and get a copy of our splendid picture, which represents several of the most noted prize-winning stallions of 1889.

**Practical Butter-Making.**

There is probably no field of agriculture in which there are as great inducements to excel and produce a first class article as in butter-making. This was brought forcibly to the notice of the writer a few days ago in a short interview with Mr. Wm. Corbett, of Springfield, eight miles east of Winnipeg. Mr. Corbett's practice is so thoroughly in accord with the methods advocated by the best writers of the day that it quite proves that true theory and practice can never be at variance. That this gentleman knows whereof he speaks is pretty well established by the fact that he has never sold a pound of his own make of butter in the province for less than twenty-five cents per pound, and nine months in the year he gets thirty cents. This fact should give weight to his ideas on butter-making. He says the first grand prerequisite is absolute cleanliness, the next is to feed properly. He feeds in the winter season, or when the cows are not on grass, wheat, oats and barley ground together, and good hay when available, but unfortunately this has not been available at all times this winter. He uses the deep setting cans in spring water, at as near forty degrees as it is possible to get it. This, however, is impracticable with most people, and ice must of necessity be used to lower the temperature. He is also very careful not to allow the milk to be exposed to a foul atmosphere, as it is very easily tainted from this source. He is a believer in the special purpose cow, and breeds for butter only, with the utmost disregard of the beefing qualities. When we consider that Mr. Corbett came to this country with the first expedition, over the Dawson Route, without money, and has settled his family comfortably and is himself in comfortable circumstances, mainly through the attention given to dairying, it should at least prove an incentive to a more thorough and intelligent system of conducting dairy operations, as there is always room at the top.

**Summer Fallowing.**

The primary effect of summer fallowing is or should be to clean the ground. To this end it should be ploughed as early in the season as possible that the weed seeds may germinate and be destroyed by cultivation. In the early part of the season the weeds grow more, than they do later on. It is as much of an object to get the weeds to start as to kill them after they are growing. If the weed seeds do not start they cannot be killed, and if they are allowed to lie dormant the object in summer fallowing has not been fully attained. It is also a mistake to plough a summer fallow the second time late in the fall or just prior to sowing, as it exposes a great number of seeds to the action of the sun and air, and they grow up with the crop, while the clean thoroughly tilled soil is turned under, where no immediate benefit will be derived from it. Summer fallowing is in some instances attended by a loss of fertility although increasing the productiveness. In this country, however, it should be attended by the very best results. First, because there is a vast amount of latent plant food in the soil, which the process of ploughing and harrowing and the action of the

atmosphere thereby renders available for the plant food. Second, because the loss by leaching which is experienced in other countries is reduced to a minimum here on account of the very light rainfall during the season in which the land is exposed, and the nature of the soil is such that it can be worked at any season and a loose surface that will act as a mulch kept upon it. The most economical and consequently the best method of summer fallowing is to plough once and after that do all the work with the harrow and cultivator, running it only deep enough to kill the weeds. A firm, solid seed-bed, which is desirable, is thus obtained. We will be pleased to hear from our numerous subscribers on the best methods of summer fallowing and the results of the various methods.

**Garden and Orchard.****Fruit Rooms and Storage of Fruit.**

Read before the late meeting of the Ontario Fruit Growers' Association by T. T. Lyons, President of the Michigan Horticultural Society.

(Continued from January issue.)

A building for this purpose may be constructed of cheap material, if only the work of packing or insulation be so thoroughly done as to effectively avoid circulation of air, save when admitted through the system of ventilation.

Admission to the room should be through double-doors; and light should be admitted only when needful in conducting operations.

Fresh air is admitted through a passage from beneath at some central point in the fruit room, which should draw its supply from the free outside atmosphere, and should be susceptible of being easily and tightly closed at pleasure. This passage should extend to near the ceiling, admitting the incoming air only at that point, which will thus displace the warmer air which will have risen to that position.

Carbonic acid and other products of decay will, if present, occupy the lowest portions of the room. To insure the removal of these the pipe for the discharge of the outgoing air should start from near the floor, passing up through the attic, and above the roof; but with its principal opening at or near the ceiling, to be used for the removal of the warmer air, when the temperature is to be reduced.

These passages also should be kept tightly closed, except during the process of ventilation.

If both air ducts are opened, when the contained air is warmer than the outer atmosphere, the warmer air will pass freely upward and be as freely replaced by the cooler air from the lower duct. This process will continue, till the temperatures within and without the room are equalized.

It may, however, become desirable to change the air of the preservative, when the temperatures are such that a spontaneous movement of the air cannot occur. To provide for such necessity, the upper ventilating duct should be of metal—ordinary sheet iron will suffice—and, in the attic, a sheet iron jacket may be placed around it, in which a light fire may be built, the heat of which will at once occasion the draft sought, and the air of the room below be rapidly changed as heretofore described.

Fruit may be stored in such rooms, in common barrels which may be piled one upon another, when the vacant spaces will be ample for the circulation of air when needful for the purpose of ventilation or change; or it may be stored in open bins, in which case the bottoms should be of slats, with ventilating spaces between, and an

open space left for the free passage of air between the bins and the floor, as well as between bins. In the case of small lots, or of specimen fruits, they may be spread, or placed in shallow piles, upon shelves or tables, so as to be open to convenient examination when desired.

A large building of this character will be the more easily maintained at the proper temperature, since the greater bulk of air will vary in temperature more slowly, in response to the changes without.

In localities in which the winters are so steadily cold, that there shall be liability that the temperature may be reduced to the danger point without the opportunity to avoid it by renewal, the air may be introduced through an underground passage, well below the frost line; and a change of air thus safely effected, even in the coldest weather.

Fruit exposed to a dry atmosphere is more or less inclined to shrivel, and become tough and leathery, as well as to lose flavor. This is especially true of the Russets. For this reason a moist condition of the confined air is found preferable, since, in such atmosphere, fruit loses little if any of its moisture.

The Michigan fruit shown at the opening of the Centennial Exposition, at Philadelphia, in May, 1876, which, at the time, attracted unusual attention, had been largely kept in a building of this character. When placed upon the tables, it had undergone so little change than even the stems, in most cases, were still fresh and green.

The freezing of apples does not occur till the temperature has fallen several degrees below the freezing point of water; nevertheless, it is claimed that the best results are realized in temperatures somewhat above that point.

The more limited operations of farm orchardists, as well as the large class of smaller commercial growers, call for arrangements of less elaborate and expensive character than those already described.

With the great majority of these the cellar is the chief reliance for the storage of long-keeping fruits. This, however, can only be rendered satisfactory for the storage of winter fruits, by devoting it wholly to such purpose, to the total exclusion of vegetables and other articles liable to infect the confined air with foreign odors; and by such ventilating arrangements as shall suffice for the maintenance of the needful low and constant temperature.

If preferred, a portion only of the cellar may be devoted to such purpose, and partitioned off by a brick or stone wall—all the better if double. If located beneath rooms artificially warmed, precaution will be necessary against the transmission of warmth to the cellar below.

The most convenient and effective device for the amateur, or family, to be devoted to the temporary storage of summer and autumn fruits, for ripening, testing and occasional retarding for short periods, would be a room, either within or separate from the residence constructed upon the principles, and (excepting the ice), with the fixtures already indicated, in which fruits can be placed either in packages or upon shelves. The latter being preferable, when the specimens are for testing, and which for that reason requires frequent examination.

To those, however, who provide for a supply of ice, during the warm season, a simple, small room or cupboard, built within the ice house, with admission from without, through doors, will be found effective and satisfactory for the holding of summer fruits, the preservation of specimens for fairs, and other kindred purposes; as well as for the preservation of various domestic products.

### Parasitic Plants—The Farmer's Microscopic Foes.

J. HOYES PANTON, M. A., F. C. S.

The writer in this series of articles upon parasitic plants purposes discussing forms in vegetable life about which little was known until within a comparatively few years; and even in the botanical text books of to-day they receive but a passing notice, and when referred to, spoken of as belonging to a class of plants too difficult for study by an ordinary reader.

Yet few forms of plant-life have proved more disastrous to the agriculturist and horticulturist than these minute plants about which so little is known, especially by those who suffer most from them. Most of them are parasitic, that is, live upon other forms of life, especially plants, and absorbing from them the nourishment necessary for their own growth. The invention of the microscope, and afterwards great improvements upon it, have enabled scientists to investigate fields teeming with forms of life invisible to the naked eye, and bring to light vast treasuries of knowledge that have become of a most interesting and valuable nature.

Information long confined to scientific investigators has become the common property of all willing to read and think, so that to-day subjects once beyond the reach of the general reader are so illustrated and discussed, that those who wish may learn. With a view to simplify the results of scientific research and render plain the teachings of science in this comparatively new field, the writer has consented to contribute a series of papers upon the nature, life history, and remedies connected with some of the farmer's most injurious microscopic foes found in the vegetable kingdoms.

Speaking in general terms all plants may be divided into two great groups or divisions: Flowering (*Phanerogamus*) and flowerless (*Cryptogamus*)—the former bearing flowers which develop seed in due time, while the latter produce no flowers, but give rise to structures which develop spores (seed-like bodies so small that they can be seen only by means of a microscope) and from there, when they fall in favorable places and surrounded by suitable conditions, new plants arise. Among the flowerless we find such plants as seaweeds, lichens, fungi, mosses and ferns; of these we shall select the fungi for our consideration. Before entering upon the study of this comprehensive group, which embraces microbes (the germs of many diseases), blights, mildews, rusts, smuts, ergot, puff balls and mushrooms, let us indicate some points of difference between a *spore* and a *seed*.

A spore is an exceedingly minute clump of matter surrounded by a thin covering; when it germinates and grows it does so in any direction; it has no particular point from which growth proceeds; it has no so-called seed case surrounding its contents, and it possesses no embryo. Four characters are thus well marked: Microscopic, no embryo, no seed case, and indefiniteness in direction of growth.

A seed is visible to the naked eye; has a distinct covering, the so-called seed case; growth is in a definite direction, and may always be expected to proceed from a particular part of the seed; a seed, too, has within it an embryo, which develops into a plant.

As growth proceeds from the spore and seed

the plants widen in character until you perceive all the differences seen between a mushroom and a rose; smut and the grain upon which it grows; the tree and the black-knot that infests it. We are now in a position to consider some of the characters of that vast division of plants grouped together under the name of *Fungi*, all of which start from *spores* and never produce flowers. Four thousand species have been made out; some consist of but one cell, and some are so small as to measure only  $\frac{1}{250000}$ th of an inch in diameter. They are without stem, leaves or roots, have no green coloring matter (chlorophyll) in their substance, and cannot prepare food from the mineral kingdom like other plants (flowering), consequently they must feed upon matter (organic) already prepared, either in dead or living bodies, and hence there are two kinds: Saprophytes, living on dead organic matter, such as the moulds, etc.; and parasites, obtaining their nourishment from living bodies, which embrace some of the most injurious forms, as the mildews, smut, rust, etc.

When a spore produced by a fungus reaches a place suitable for its development, it gives rise to a number of threadlike structures (*hyphae*) interlacing each other and pervading the tissues of the plant or substance upon which it is growing. This mass of growing threads (*mycelium*) in the course of time gives rise to structures that vary much in form: Some are like tiny trees bearing fruit (spores) on their minute branches, others consist of an erect stem rising from the mass (mycelium) and bearing on its summit a spore, and some seem to produce masses of spores arranged like beads on a string. In all these cases the spores are produced with wonderful rapidity, so that in a very short time, sometimes only a few hours, under favorable conditions, millions are produced, and being so minute, they are carried from place to place by the atmosphere. Where a spore has begun to grow upon a living plant the strength of that plant (*host*) is absorbed to nourish the fungus, and in a short time the *host* plant is seriously injured if not entirely killed.

[TO BE CONTINUED.]

### The English Sparrow.

BY W. E. SAUNDERS, LONDON, ONT.

The sparrow question, as it is now familiarly termed, has certainly been a much debated one of late, and while not a few persons to whom the bird is an old acquaintance agree that all statements to its detriment are malicious slanders, still the bulk of evidence as well as of opinion is strongly against it, and by almost, if not quite all of those who are in the best position to know, the sparrow is unhesitatingly and sweepingly condemned.

The decision has not been reached without due consideration and ample evidence. Both in the United States and on our side of the line, time and money have been freely spent in solving the problem, although most of the work has been done by our neighbors. Their Division of Zoology, in the Department of Agriculture, issued blank forms containing questions bearing on all points of the subject at issue, and these forms were sent to everybody known to those in charge, who would be likely to possess information of value in deciding the result of the investigation. When the reports were gathered in, it was found that while the sparrow was introduced at only a few points, chiefly along the Atlantic seaboard, it had increased so rapidly that it was fast covering the continent: in fact, last year the new territory reported covered was about 200,000 square miles, which nearly equalled its total distribution for 1888, so that in a few years, probably three at the outside, we

shall see it covering our whole continent. One of the greatest objections to its presence is that it crowds out and drives away our native birds.

There are few nests of our native birds containing eggs after the beginning of July—but this foreign intruder extends its work as long as the weather is favorable, three or four broods of four to six each being the usual number of young raised in a season, and as it generally breeds in town it is not subject to the attacks of carnivorous birds and animals to the extent of which our native birds are troubled.

Out of a large number of stomachs of adults examined by the writer, so much as fifty per cent. of insects have been found, the proportion varying from this to none, in which latter instances the contents generally consisted entirely of road-pickings and grain. The stomachs of young birds taken from the nest usually contained from one-quarter to one-half of insect remains, but instances are not wanting where stomachs even of unfledged young contained nothing but road-pickings, although the belief that they feed their young to a considerable extent on insects is amply proven. Their numbers in our country are not such as would lead one to believe that they might commit havoc among grain fields, but the record they bring with them from Europe shows this to be their habit, and already reports of great damage to single fields are coming in from different localities, and thus public opinion is being aroused to the probability that they are destined to be a factor in determining the results of agriculture in our country. Reports have reached the writer from different directions around London that they have seriously affected the yield of wheat from certain fields, and it is within the range of the experience of almost every gardener that they sometimes do serious damage to the buds of fruit trees and shrubs, and also that they often attack the ripe fruit itself.

That they cannot be depended on to attack any particular insect every time it appears is shown by a recent letter from the President of our Society, in which, after referring to their attack on a scourge of apple aphids, and stating that he saw one devour a larva of the common tent caterpillar, he says, "On the other hand, when trees have been swarming with the tent caterpillar, as in 1887, the sparrows flew into the trees in large numbers, but I never saw them touch a caterpillar except in the above mentioned instance."

Some people in the country realize the fact that this bird is an unmitigated nuisance; one striking case having recently been brought to my knowledge, where a farmer living close to the city limits of London, where these birds abound, goes to considerable trouble to prevent their permanent access to his farm, and as a result the trees around his house and over his farm are inhabited by such birds as the Orioles, Vireos, Tanagers, Warblers and others, whose brilliant plumage, sweet voices and entertaining ways far more than repay him for his expenditure of time and trouble in protecting them, while they render him untiring service in ridding his farm of noxious insects which would otherwise multiply at his expense. On the contrary, other farms with which I am familiar, as a result of indifference, have for their bird music the strident tones of the sparrow, and instead of having the foliage of their trees and shrubs kept in good condition by the ceaseless activity of our native songsters, their houses are made foul, their tempers tried and their crops attacked by this intruder, who takes upon himself the onus of crowding out many and driving out more of the original avian inhabitants.

[TO BE CONTINUED.]



**Vegetable Pathology.**

BY JAMES ELLIS HUMPHREY.

Prof. of Vegetable Physiology, Massachusetts State  
Agricultural Experiment Station.  
(Continued from January issue.)

## THE BLACK-SPOT OF ROSE LEAVES.

*Actinonema rosae* Fr.

In December, 1887, my attention was called by Prof. S. T. Maynard to a disease which considerably affected the leaves of roses cultivated in the Durfee Plant House, and which he desired me to investigate. The leaves presented all the external characters usual to the disease which examination showed to exist, namely, the so-called *Black-spot*, caused by a parasitic fungus known as *Actinonema rosae*.

This is probably the commonest and most troublesome disease of cultivated roses, whether of out-door or greenhouse cultivation, in both Europe and America. It first appears in the form of dark discolorations of the upper surfaces of the leaves, which spread outward and often show a yellow band surrounding the dark spot. Often the discoloration begins at the tip of the leaf and spreads downward. The centres of the spot frequently become dry and brown, indicating the complete death of the tissue. In consequence of the attack of the fungus, the leaves fall from the stem and may be replaced by a new crop if the weather be favorable. The loss of the functional activity of the leaves at a time when their work is most needed, not to mention the waste involved in producing an extra investment of foliage, must greatly weaken the plant and lessen the amount and vigor of its bloom, as well as seriously impair the ability of out-door roses to resist the following winter.

The mycelium of the fungus develops in the leaf, chiefly just below its surface layer or *cuticle*. From this principle mass threads penetrate deeper into the interior of the leaf and absorb its fluids for the nourishment of the fungus. Other threads grow upwards and produce the spores, which, as they grow, make room for themselves by forcing up the cuticle, which finally bursts open, allowing the ripe spores to escape through ragged openings. The spores germinate promptly on a moist surface, and readily infect fresh leaves. It is probable that this parasite of the rose is merely an imperfect stage in the life-history of a fungus, whose perfect stage is very probably, or at least possibly, saprophytic and serves an important purpose in carrying it through the winter. In the lack of definite knowledge on this subject, however, we can deal only with the parasitic or *Actinonema* form.

In combating the disease it is essential to begin early, for leaves once penetrated by the mycelium of the fungus are irretrievably lost. All efforts must be directed towards preventing infection, by the application of some protective compound. For this purpose it is recommended that the bushes be sprayed shortly before the unfolding of the leaves, again as soon as they are fairly opened, and at intervals of three or four weeks until the flowers begin to open, especially after heavy rains which may wash off the protecting substance from the leaves, with blue-water or *Eau celeste*, prepared as follows: Dissolve one pound sulphate copper in four gallons warm water; when cool, add one pint commercial ammonia, and 18 gallons water. Any leaves in which the spots may appear should be promptly cut off and burned.

When the autumn is long and mild, plants which have lost their leaves from *Black-spot* during the summer often put out fresh shoots from the terminal buds of their branches. This process exhausts the plant and lessens its ability to withstand the winter, and should be prevented by clipping off the terminal buds, leaving those lower down to make the next season's growth. There is no advantage in spraying the already affected plants in summer and fall, but the "spotted" leaves should be collected and burned, as they drop, to prevent further mischief as far as possible.

[TO BE CONTINUED.]

**The Apiary.****Marketing Honey—Sense of Smell in Bees, Etc.**

The financial success of the bee-keeper depends very much on his tact and ability in selling his product. Some can handle bees successfully, and produce a good crop of both bees and honey, but cannot sell either to advantage. Others are good salesmen, but poor producers. A few can produce and sell successfully, and with equal facility. To one of the latter it is amusing as well as annoying to note the methods of marketing practiced by some bee-keepers, and to observe the diverse and dubious samples of honey on a town market, or huckstered about from door to door. Crushed bees, larvae, bee-bread, old comb containing candied and liquid honey, in one conglomerate, unsavory mass, forming some of the samples or examples of what is brought to market and called honey (?) by some of the old fashioned bee-keepers, who still adhere to the "old box hives," and "take them up" in the fall with fire and brimstone. Then, when certain of the colonies die in the winter or spring from disease or other cause, the remains in the hive are cut out and cut up, and dished up in old tin pans or rickety tin pails, and taken away to market. Or, if it is not taken away as comb honey (save that mark), it is duly converted into "strained" honey, and this is the way it is done:—The aforesaid jumble of delicacies is cut up and squeezed, and then tied up in a cloth and squeezed, then hung up by the stove to warm, after which it is squeezed again, with something under to catch the nectar, and juices, and secretions, and fluids, and excretions are squeezed out of the bag and its contents. That, then, is dubbed "strained" honey, and taken to market and sold at two-pence to sixpence a pound to either innocent or penurious victims, who go home to feast on "bread and butter and honey!" Well, "where ignorance is bliss, 'tis folly to be wise." When the apiarist who uses "excluder zinc" to get the clean, pure comb honey, and the extractor to get the clean, pure liquid, sees this sort of thing he naturally feels both amused and disgusted. However, the consumer will soon come to understand the difference between pure extracted honey and the stuff called "strained" honey, and between the beautiful section comb honey, with not even a trace of bee-bread in it, and the medley of bees, pollen and honey above described.

In the successful marketing of honey much depends upon the manner in which it is put up and presented to the eye of the purchaser. With taste, and judgment in putting up, and fair business tact in disposing, no bee-keeper

need have honey left on his hands, no matter how much he produces.

Owing to the scarcity of the crop the past two or three seasons, both in Europe and America, and the scarcity of small fruits this season, the demand for honey is good, and the market satisfactory. Producers need not, therefore, be in any hurry this season to sacrifice their product by forced or premature sales at unremunerative figures.

## THE FASTIDIOUS BEE.

The honey bee has a fine taste and a very discriminating sense of smell; she resents the malodorous and all uncleanness; she goes further than this, and sometimes rejects as offensive what the most fastidious ones of us are unable to perceive as such.

In much handling of bees they have given me some lessons. The relations between us are generally of the most amicable kind, but once in a while there is a break. Sometimes one side is to blame and sometimes the other. Here is a case where this and not the other side was to blame: I noticed that the "pets" were irritable and disposed to sting at a certain time every day during honey yield, when usually they are very docile. Casting about for a cause I soon discovered it. It so happened that I had occasion to empty the whey from the milk can after its return from the cheese factory for a few days while working in the bee yard and handling the bees. I soon noticed that it was just after returning to the yard from this work that the bees manifested their pugnacity. I concluded that the drop or two of whey I might have got on my hands was offensive to them, and accordingly paid tribute to them by always washing my hands of the drop of whey belonging to them; the effect was magical; they resumed their usual amiability, and peace was restored.

During the past summer, a few miles off at a neighboring apiary, a team of horses hitched to a milk wagon with whey on board were tied up some distance from the bee yard; they were at once attacked by the bees in large numbers, and were stung nearly to death before they could be rescued.

In handling bees in my yard, with thousands round about in peaceable condition, I have known them to drive off certain persons who would come in, and who proved offensive to them—perhaps laboring men who were freely perspiring and neglected personal cleanliness—while others were unmolested.

Wheat-straw is very much used in the south of England for horses. It is cut into chaff with clover-hay, in the proportion of one of straw to two of hay, but more to prevent the clover chaff from balling in the animal's stomach than from any idea of its imparting much nourishment to its frame.

What are eggs? To give a direct answer they are the product of the hen. But this is not all; they are the most perfect food given to man. (For which this most undeserving creature should be most profoundly thankful.) Every element necessary to the support of our poor bodies is found within the limits of an egg shell—in the best proportions and in the most palatable form. They are a meal within themselves. No healthy appetite ever rejected a properly cooked and seasoned egg. They are nutriment in its most concentrated form and as fit a diet for the king as for the lowest workman. While, as a medicine, they are not to be despised. Their use in the curative art is "too numerous" to mention; but which goes to show their great and unappreciated importance in our every day life. Let us not despise the hen nor her product.



**Family Circle.**

**Benevolence and Gratitude.**

(From the Russian.)

The Virtues were invited once  
To banquet with the Lord of All.  
They came—the great ones rather grim  
And not so pleasant as the small.

They talked and chatted o'er the meal,  
They even laughed with temperate glee,  
And each one knew the other well,  
And all were good as good could be.

Benevolence and Gratitude  
Alone of all seemed "strangers yet;"  
They stared when they were introduced—  
On earth they never once had met.

**THE DARK HORSE;**

OR,

**A MONTH IN AN AMERICAN COUNTRY HOUSE.**

BY GEORGE A. HIBBARD.

(Continued.)

Hitherto Wrexford had seen but little of Kitty Marling. The exigencies of the days had not brought them together; and the tablets upon which the immutable laws of procedure are cut, and which stood, as if in steadfast marble, prominent in the Kerneval house, had prevented his sitting beside her at dinner. How often Wrexford had anathematized them here and elsewhere. Why might there not be choice or fitness in prandial apposition,—why not consideration of congeniality or repulsion, of past relations or present imbrogllos, in such a case? Why was there such disregard of even antediluvian precedent, when every beast and "every creeping thing that creepeth upon the earth" went in, each after its kind,—such disregard as sends our rival to dinner with the lady of our choice, and allots us to her from whom we parted, never to meet again, only the summer before?

The Kernevals and their guests dine to-night at another house, and, though the hostess has striven valiantly to separate members of the same party, Wrexford finds Miss Marling upon his right hand. The bustle, the rustle, always attending the seating of a large party, has scarcely subsided, when Wrexford turns toward her.

"At last, Miss Marling," he says, "we are not separated by the illimitable desert of a drawing-room, or placed in encounter across a dinner-table,—at last we are within humane speaking distance, and I hope you will aid me in a look-up of our mutual interests."

"Why not individual and dissimilar ones?" she responds; then we, perhaps, might have some very pleasant differences,—something about which we might argue."

"You would convince me?"  
"But perhaps no mutual interests exist."  
"They must," he said, seizing the most obvious topic. "For instance, I am desperately concerned to know in what precise stage of a flirtation Miss Lyddington and Dakayne are now engaged," and he glanced across the table at those busily-employed parties.

"The word is so new that no two can agree about its meaning."  
"Pardon me," said Wrexford, "Lord Chesterfield says that he assisted at its making,—that it dropped from the most beautiful mouth in the world."  
"Whose?"  
"Perhaps from the lips of—"

"beautiful Molly Lepell."

It certainly ran off the pen—afterwards, I suppose—that gave account of her "frizelations, flirtations, and danciations."

"So long ago," said Miss Marling, "and yet we have no definition of it."  
"But we have," said Wrexford, laughing, "one by a Frenchman who says that it is 'attention sans intention,' and another by an Englishman, who calls it 'a spoon with nothing in it,'"

Miss Marling smiled.  
"But," she said, "we could hardly base a friendship upon such an interest,—hardly an acquaintanceship."

"A beginning is something," replied Wrexford cheerfully. "It may lead to discovery that we have similar fancies,—for instance, for dogs or dogmas, for horses or heroes."

Miss Marling smiled again, and nodded to one of the party whom she had not noticed before.

"Is it not surprising," she said in a moment, "how absolutely ignorant two civilized people can be of each other?"

"Not quite absolutely," he answered. "We take a great deal for granted, and a great deal is true."

"Only the most evident and common-place things."

"But there is much that is not common-place that we may safely predicate of the people around us, for instance, simply because they are here."

"What?"

"A certain degree of good breeding, of position, of experience."

"Those are mainly class peculiarities, not individual."

"Individuality is always exceptional, and therefore unclassifiable. Individuality begins where class characteristics end, and together they form personality."

"That may be all true," she said, "but do you know I think we learn more of others, in our woman's way, from divergences, than you, in your man's way, from convergences."

"And is that a woman's way?"

"Yes, likenesses we feel,—only dimly perceive; dissimilarities strike us, and we think of them."

"But divergences cannot really be known. You may be sure of a man's manners, but not of his morals; of his costume, but not of his character."

"I think one learns much of divergences even from first impressions," said Miss Marling, a little persistently.

"First impressions. And now we are upon an old and hallowed subject."

"I believe in them."

"Then you must have opinions at first sight about every one,—about even myself, for instance. Do you suppose they will ever change?"

"No,—yes,—I don't think they will."

"And then the doctrine of works vanishes into air, and one can only hope for happiness in being one of the elect."

Miss Marling said nothing.

"I know my first impressions of you," he said reflectively, and almost to himself.

"As you do not believe in them, and therefore, of course, expect to think differently of me," she said, a little repellingly, "they are doubtless of little value."

"Perhaps," he said. "May I venture to speak of them? You may tell me, you have my gracious permission—when I am wrong."

Miss Marling said nothing.

"I thought you had always had every wish fulfilled, and only escaped a light, azure *ennui* by a quick appreciation, unrecognized, perhaps, of much,—of actualities of life,—not before wholly known to you."

"You have the vagueness of an oracle," she said; still, she did not stop him.

"Constant realization and much consequent knowledge have made you exacting."

"I expected something better of you than this," she interrupted. "That is trite, and, besides, it is not true."

"Society at last has begun to weary you," he went on in a tone of mock solemnity, "and you wonder why, and ask yourself what is to be the end of it all."

"You are only describing the thoughts—the condition—of hundreds of girls. I am afraid it is as I have always suspected, that I am lamentably like every one else."

"You know," he answered, "that I am not wholly a believer in first impressions."

He might have made some pretty speech, she thought, but whether she was pleased or displeased she could hardly say.

"Besides," he went on, "I have only spoken—how shall I describe it—I don't like the word—objectively, as it were."

"But first impressions must be subjective."

"Will you permit me," said he, bowing and smiling slightly, "to speak—subjectively?"

"Really," she said evasively, "do you not think that we are having a most remarkable conversation?"

"Why?"

"For one thing, we never saw each other—never heard of each other—before we met here, and at the first opportunity we have plunged into the most profound personalities."

"But what should we have done?"

"We should have spoken of the place, and, taking some one known to us both, we should have talked of him or her, of faults, of follies, of merits, of manners, and manners, and manners,—we don't care for the word,—mind,—let us keep to our phrases—of his or her divergences or convergences. Others would naturally have come up, and then we should be fully under way. People, people, always people,—stories about people, gossip about people, everything about people. All conversation must be small-talk, middle sized talk, great big talk about characters and conduct and the consequence of every one you know."

"And he, of course," said Wrexford, "is the best talker who knows the greatest number of—such subjects."

"Undoubtedly."

"But how dull I must be. I haven't spoken to you of a single person."

"Yes, Bessie Lyddington and Mr. Dakayne,—and what a chance was lost there!"

"I have been away for a long time. I am quite an outside barbarian."

"You have not the manner of one."

"I assure you that I am. I can talk to you of no one. I have forgotten every one, and every one has forgotten me."

"I do not believe you. I think you could, but you don't. That is what I mean. You have the air of one who could, if he wished, as much as any inside barbarian."

"And is that enough?" he laughed.

"It is a great deal better," she answered seriously.

"I understand," he answered, laughing, "as I read in *Le Journal Amusant* a little while ago, 'Faut avoir l'air de gens qui ont l'air de ne pas avoir l'air.'"

When Wrexford reached the drawing-room, he found Miss Marling surrounded by others who had entered it before him, and it was late in the evening before he could speak to her again.

"Let me make amends," he said, "for my past singularity, by being strictly conventional. Do you care for hunting?"

"You are very successful," she answered, smiling.

"Nothing could possibly be more like everybody

else. I have been asked that question five times in the last hour."

"I am overjoyed. I wish it had been a dozen. I should feel that then perhaps there is offset to my irregularities and mistakes."

"But you made no mistake."

"Singularity is always a mistake."

"Then genius must be invariably a blunder," she responded quickly.

And so they talked on, going over the old, old subjects that have been so often discussed, subjects wearying or not wearying, as the case may be,—but which serve as well if not better than any newer.

"All ways lead to Rome," says the proverb; and all talk when "both" are "young, and one" is "beautiful" leads to love. A budding affection may be intimated in ten words about the weather; the aspirations of years may be disclosed in a discussion of the newest way of shearing a "cantiche;" the desperation of a lifetime declared in an account of the last comic opera. The dullest language, to those who can read what underlies the sentences with subtle significance, can be made aglow with meaning; and when, from any subject, there can spring a hundred swift and allusive asides, it does not much matter what it is. No topic is so opaque that it cannot be made the medium through which sweet messages steal; none so severe that it cannot be made to express the most illogical of passions. "To talk of love is to make love," said a great Frenchman,—why, to talk of anything is to make love, when the heart is so disposed.

Wrexford enjoyed the days more thoroughly, more absolutely, more unquestioningly, than he had for years expected to enjoy anything. Doubts fled, unrest was gone; forecast, if it obtruded, was put aside. It was as if Henry Wotton had it,—"his idle time not idly spent." The peace of such perfect material conditions fell upon him—the peace so grateful to one who had "roughed it" so long, who had, at least, tried all the surfaces of life. And in such luxuries as were around him, such refinements as ministered to him every hour, he found a sustaining quality that does not belong to mere repose. When one has, and for a long time, "*mitte sich gedacht*," and body, as well as brain, feels, as with the sharpness of appetite, need for rest, then nothing so satisfies the want, as self-surrender to the charm then found in the actual, tangible world; in almost complete absorption in material nature; in the joy of broad, living, throbbing creation; in the delight in "things"; in the reception of that spirit that is known sometimes as "Hellenism." And indeed we have, over here, more of the old Greek spirit than might be supposed. With intellects divided, with faculties distracted in the complexities of modern life, we may not produce great works of the kind of the older time. But in our materialism may we not do as well? May not the railroad be our Iliad; the telegraph our Parthenon; the telephone our Iphigenia in Aulis? May not the refined intelligence that really gives tone to the elaborate perfection of our best physical life, be more than the equal of the spirit that informed the thronged plain, the peopled hill?

And Wrexford felt that it was best to let himself drift. Besides, there was no zest, a pleasure far beyond any that spring from thoughts wandering at their will, or amused perception, or gratified eye or ear or palate, in the so-well-regulated play of intercourse with those pleasantest of our kind? Kitty Marling more than pleased, she charmed him. It was a long time since he had seen and really talked with one of the fair denizens of the bright contracted world in which she lived, and every moment alone with her was exhilarating, inspiring enjoyment. But there were not many such moments. It seemed to Wrexford, as he expressed it to himself in his exasperation, as if so much must be done in "groups," and, besides, Everest was ready to appropriate her time, her attention, when he talked so much to her of the things he said so much about; this very presentable John the Baptist, whose raiment would be of camel's hair if men wore shawls; whose girdle would be leathern if men wore money belts; whose locusts were ortolans; whose wild honey was Chateau Yquem,—preaching in the wilderness of this Judea the modern doctrines of doubt and distrust? Wrexford could not answer such question; but he watched them when together, and sometimes with masculine instinct of resentment against the man.

And so went by the time. There was a hunt every other day,—enough, at all times, to give quick wings to the flying hours,—a dinner somewhere every evening.

All the men were in the smoking room. Etheridge Dakayne, and two others who had dined at the house, but had not yet started for the place, a couple of miles away, where they were staying, were playing "hearts." The rest watched the game or sat about the fire, looking at the blazing hickory, and talking of the run of the afternoon.

"By the way," said Kerneval, "how near the 'Point to Point' is. I never realized it until this moment. I wonder who will ride. I'm not to be let do it, and we must have some one to represent the house."

"I think I'll try it," said Everest, who sat watching the play. "I've an idea of bringing up Tolson d'Or."

There was sudden silence,—the silence of surprise and consternation. Tolson d'Or was one of the most celebrated steeplechaser in the country, of unimpeachable English lineage, a victor over many desperately fought fields, the acquisition, at great price, of Everest, about a year before.

"Bring Tolson d'Or up here—to ride yourself?" said Dakayne, in amazement.



### Minnie May's Dep't.

MY DEAR NIECES:—

That old simile of the ivy clinging to the oak to illustrate woman's dependance upon man is a very faulty one. If we reflect a moment, they are growing in the same soil, so the ivy is not relying upon the oak for any life-giving properties, and it merely creeps up the oak because it happens to be there. Now, if the ivy crept along the ground, as it often does, it would carpet the ground with glossy green in riotous luxuriance, putting down firm roots as it went along, and we have heard of many a fine tree being killed from too many creepers. It is not flattering to be called a creeper, however much it is meant so, and every woman, unless she is born sick or deformed, should be able to stand alone, think and act for herself, and quite as successfully as any man. She is endowed with brains, perceptions and faculties as man is, and she is expected to use them. We have instances every day of women taking hold and succeeding too. Cultivate a spirit of self-reliance; men will not despise you for it, and you will respect yourself more. Do not think it is the right thing to try to be like a man, but be a woman in the higher, better and holier sense. Cultivate the brains God has given you, and think more for yourselves. It is in almost every woman to be something more than she is, but do not think that home and husband and children, with all their cares and worries will trammel you; on the contrary, it is just in the sphere of wife or mother that you will have a chance for developing if you earnestly set about it. So often the wail goes up, "Oh! here I have been tied with a pack of children, and can do nothing with my nose to the grindstone." And pray who holds your nose? or who turns the grindstone? I very much fear the handle is turned by yourself, so you should either cease complaining or cease turning. You are in a position to show what can be done by a wise and good woman in the education of your children and the moral influence exercised over them, your husband and household. The men and women turned out of homes loudly speak, as a rule, of what the mother was like. Nobody who reasons or thinks at all will ever pity a mother; and how often they appeal to you for sympathy? She is repaid tenfold for any care she has by the affection of her children, for they will love her if she loves them; her hopes and ambitions for their future, and daily planning for their after life, all of which will be realized if rightly worked out, and they in turn will care for her when no longer able to take care of herself. So my dear nieces and grumbling mothers, just think over this and admit that the faults, if faults exist, are all your own, and your dear children are in no way responsible.

A decided taste for woollen underwear is growing, and the pretty petticoats and even drawers made up in nun's-veiling testify to this. Woollen night dresses are pretty and comfortable too—so much easier to slip on at night than a cool cotton one. Blue and pink are most used, they wash well and the color is fast. These pretty garments will admit of any amount of ornamentation with needle and floss or silk fillosette. A deep lace can be used cascade fashion down the front if preferred, but the yokes, neckbands and wristbands can be stitched

with contrasting color in herring-bone or feather stitch, and if you are discomforted with cold feet just crotchet yourself a pair of woollen slippers, as any one of my bright girls can do, run an elastic around the top, and you will never be troubled again in like manner.

"And patience! patient be at work or play,  
It keeps a thousand miseries at bay,  
And stands a vast amount of wear and tear  
By one sweet rule, to 'Bear and to Forbear.'"

MINNIE MAY.

### PRIZE ESSAY.

#### A Country Party, and How to Make it Pleasant.

BY MISS ADA WOOD, BIRTLE, MAN.

A country party in the winter time is an ideal one. Take a fine moonlight night, a sleigh load of jolly young people dashing over the sparkling ground behind a prancing team if not a four-in-hand, before them the prospect of several hours spent in a commodious farm house, whose windows can be seen ablaze with light for many a mile distant, where music and mirth shall drive care away, where smiling faces greet one at every turn, and where only the prospect of the moonlight drive home again can reconcile one to saying good-night at all, take all this and where can you imagine more solid fun and enjoyment condensed in so short a space of time?

However, all parties cannot be called ideal ones, but surely it is the duty of all who attend, whether they be the entertainers or the entertained, to make a party as pleasant an affair as possible. One of the first things that might be mentioned on the subject is to see that the accommodation for horses is left in responsible hands. It is a source of great annoyance to guests when this is neglected, and it reflects sheer thoughtlessness on the part of the host, for every man who owns a stable knows very well what must be done under the circumstances. Fortunately this thoughtlessness is the exception and not the rule, so it is unnecessary to dwell further on it. While it is impossible to give reasons it is nevertheless a fact that as a general thing the first hour or so of a party is a trying one for everybody, especially the hostess, unless she possesses an unbounded stock of jollity herself and has the gift of infusing into each new arrival. This is seldom the case, and as a rule her time is spent in greeting new comers, while those already there are left to entertain themselves, which very few can manage to do satisfactorily. The majority expect to be amused, and find time stupid till the fun of the evening has actually begun. One way to avoid or lessen this awkwardness is to have a supply of illustrated papers and magazines on hand. If you do not possess them, buy a few; the cost is trifling, and it is not throwing away money by any means; they are interesting to everyone. Then some quiet games might be started, and if there is a piano someone should be kept at it continually, not playing for admiration or applause but merely indulging in a medley of pretty undertoned airs; it helps conversation wonderfully.

It is almost out of the question to enumerate the many pastimes that might be indulged in to make a party pleasant. Only a few suggestions need be given. When dancing is in order then there is nothing more to be thought about. That takes up the time from beginning to end, so it saves the hostess from worrying about what to do next. Progressive euchre has the same re-

commendation, and is, moreover, a very sociable sort of game, as those who have played it will understand. However, in a country place where one asks everybody for miles around, there are likely to be many who do not approve of either of these amusements and yet enjoy a jollification as much as anyone, or if they themselves are going to give a party, what is to be done to make it a success? The only resource is games, and it is by no means a paltry one. There is an endless variety of them at our disposal—amusing and instructive games, foolish games, wise games, games for the clever and games for the stupid. Surely no one can be excused from giving a party on the ground that there is no way of entertaining guests. It is a good plan for a lady contemplating giving a party at which there is to be no dancing or card playing to write out a list of games and have it on hand so when the time comes she can make her selections without any trouble.

Supper is our next consideration. In the country where there is an unlimited supply of good butter and eggs, and all kinds of jams and jellies stored away, there ought not to be much difficulty in that line. Where the family do their own cooking it is wisest not to attempt many fancy dishes, which after all are only vanity and vexation of spirit. Most people prefer plain, substantial dainties. Cold meats are very acceptable if the supper is laid on the table. Pickles, catsups, sauces, etc., must not be forgotten. If refreshments are to be passed a liberal supply of sandwiches must be prepared. Only let everything be good—no dry sponge cake or leathery layer cake with a little jam stretched across it should be allowed. There are plenty of choice recipes to be found in the FARMER'S ADVOCATE and elsewhere for rich and dainty sweetmeats, and when one is giving a party one should have the very best in quality. Better, if there must be a limit, that it be in variety. Good pastry is generally more appreciated than cake. Coffee and lemonade are the standard beverages for such occasions, and ice cream is often in demand. It is a good plan to give a cup of hot tea, coffee or beef tea to the guests immediately on their arrival. It warms the chilled bodies and raises the spirits wonderfully. Yet after all the success of a party does not depend altogether on the entertainer. They may do their part to perfection and yet feel when it is all over that it was a stupid affair and vow never to give another, simply because the guests, or many of them, through stupidity, shyness or indifference, would not be entertained. Such people ought to overcome these faults or—stay at home! Certainly, if we go to parties and accept the hospitalities of our friends they have a right to expect that we will do our best to make things pleasant. At best it is but a poor return for all the trouble they have taken for us. If you do find a party dull don't acknowledge it, for it only betrays stupidity on your own part. Bright people can enjoy themselves under the most adverse circumstances. A word about early hours:—Encourage them; come early and leave early; better break up in the very height of enjoyment than have the hours drag on till nearly daylight. Let the people in the country aid in the reformation that has certainly begun in this respect.

We want all of our old subscribers to send in some new subscribers and get some of our premiums.

**Disputed Property.**

This does not represent "Tommy and the Crow," that dear old lesson all Ontario children know so well. No, for although you might think so to look at our sleeper, another glance shows it is a business-like and not-to-be-daunted old hen, who is pushing her business of making a living, and sees a chance of getting a good dinner now without scratching for it as she so often has to do. A little frightened to make so bold, then summoning up courage she approaches, but hen-like she retreats at a move from the dreaming boy. Then coming closer next time, there she stands, impelled forward by the treat in store, kept back by timidity and fear of re-

talent, not mind, not power even, always succeed to the highest possibilities, because misimproved, but the utilizing of our every power, to make the most of life even in details. The cents make dollars, the drops make the ocean, the improved moments make the successful life.

KATE ROBERTSON.

**Uncle Tom's Department.**

MY DEAR NIECES AND NEPHEWS:—

Doesn't it seem strange that away on the other side of the globe they are busy there finishing up their harvest, and little Australian boys and girls, as well as New Zealanders, are running around with bare feet and straw hats and in

so easily?) I'm glad you don't call it tobogganing, give Uncle Tom the good old word—no new-fangled nonsense for him—just *sleigh-riding down hill*, with glowing cheeks and ringing voices with might and main. Maybe I have what some folk call "rheumatiz," and maybe I'm bald-headed, but there's boy enough in me yet to just want to get on one of those sleighs and go bounding down that beaten track. Maybe I'd hit the post instead of going through—the bars, I was going to say, but I'm like Paddy, "Where the bars are there aren't any." Maybe I couldn't steer straight now and would get upset, but the boy's heart is there just the same, with room in it for all my nieces and



DISPUTED PROPERTY.

sults. Yes, disputed property, that handful, who shall have it? The hen I say.

What is the moral of the picture or the story? Who can tell? Are there any more in life who having their fortune, or their talent if you prefer to call it so, in their hand, lie down and sleep and use it not, and waken up from their sinful indolence to find it gone. Gone, like all lost opportunities, away down the stream of time, unplucked, ungathered, lost, lost forever.

To the credit of the hen, we can say she has not lost her opportunity, but grasping it and utilizing it she has made the most of it, and taken at the right moment it is golden, it has fed her, has gone into another channel, and left her a more persevering hen than before, a stronger hen physically, and no doubt a better egg-layer because a better food-gatherer.

Life is filled with just such things. Not

their shirt sleeves? I am sure you feel like pitying them when you look at that snow-covered hill-side and think of your own good, strong sled hauled up at the wood-shed door, as you think of the fun you have had, and, better still, of the fun you are going to have tomorrow. It's all very well to read Robinson Crusoe—and what boy doesn't like to do that?—or look again over the pictures of him and Friday, and his boat, and his goods, his dogs and his—well, everything. But, with a moonlit night, a frosty air, a good hill and the best sled around, who wouldn't rather sleigh-ride and leave the books on the shelf and only in pity think of any who have to stay indoors on such a night. (As you hauled your sleigh back again up the hill did you ever think *why* it runs down

nephews, their interests and their sports. What a number of you there are too, from "little Dan," who, as every Public School teacher and pupil in Ontario knows, "comes last," and "waves his flag and does his best to keep up with the rest," to the "big boy" who champions the little folk's cause and gives them rides and slides. With all between the inveterate "Budge" of "Helen's Babies" fame, the studious ones and the humorous ones and the clever ones, stupid, good-hearted, mean-spirited, idle and busy ones. There, I have you classed, now leave it to yourself to fill your name in the proper place. It was that poet whose birthday anniversary was celebrated a few days ago, who said:—

"O, wad some power the giftie gie' us,  
To see oursel's as ithers see us."

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If we know where our failings are we know just where to begin to improve. The bashful niece or nephew though is Uncle Tom's special interest. He was once bashful himself, and well remembers when an Old Country cousin offered a present, he stood, as the old lines go:—

"Pushing with restless feet the snow,  
The brown checked apron fingered."

But could not muster courage to approach near enough the stranger to take the coveted prize. "A fellow-feeling" you see "makes us wonderful kind," and through his specs Uncle Tom sees the forward, smart children—too often spoiled at home—go down in the race of life, while the bashful ones, advancing with care, like the Irishman's owl, "say nothing but think a heap," and in the end come out victorious. In the home, especially when there's a number in the family, and at school the rough corners of boys' and girls' characters get rubbed off, and so the bashfulness takes flight. There is another thing that Uncle Tom has noticed sometimes, viz., a tendency on the part of his nieces to judge of the fitness of their companions by the dresses they wear and by their looks—just as if the outside made the heart within. Did you ever hear a beautiful ballad, "The Children's Home," beginning:—

"They played in their beautiful gardens,  
The children of high degree."

and closing with

"And the high-born child and the beggar  
Went homeward side by side,  
For the ways of men are narrow,  
But the gates of heaven are wide."

When my nieces and nephews sing it, as I hope they will, it being a favorite not only here but in the Old Land, may they, with the music and words, breathe also the spirit of the piece is the wish of your loving  
UNCLE TOM.

**Nature of Sleep.**

It is not uncommon to hear persons attribute the sleeping of guilty creatures to hardness of heart. This is an error, for all degrees of excitement in the parts of the brain and spinal marrow associated with the nerves of the sensitive system, are followed by proportionate exhaustion. Exhausted by mental excitement, the criminal is often awakened for his execution. And the soldier, both by mental and bodily excitement, sleeps by the roaring cannon.

**Architecture of the Beaver.**

The stories of the beaver using its long, broad and flat tail as a trowel, are impositions on the credulous. The tail is altogether unfitted for for such operations. For mixing up the mud with its other materials, the animal employs its fore paws and the mouth, while it employs the tail in the water as a paddle and rudder to urge itself onward and to direct its course. With its powerful incisor teeth it strips off and divides the bark of trees, which form its principle nutriment; and it gnaws the rough, thick trunks to obtain the timber for building its habitation. Its teeth are reproduced from the base as fast as they are wore down at the extremity. By good authority it is stated that a beaver will lop off with its teeth at a single effort, a stem as thick as a common walking-stick, as clearly as if done with a pruning knife.

What is that which is always in place and always out of order? The letter C.

Nothing dies—not even life—which gives up one form only to receive another. No good action; no good example; no generous endeavor dies; it lives forever in one race.

**Puzzles.**

1—FEBRUARY, 1890.

							1
2	3	4	5	6	7	8	
9	10	11	12	13	14	15	
16	17	18	19	20	21	22	
23	24	25	26	27	28		

- Across—1. A consonant.  
2. The blackberry bush.  
3. (In fortifications). A detached work with two embankments, which make a salient angle.  
4. Pyro-acetic spirit.  
5. To blot out.  
Down—1. A kind of thin nail without a head.  
2. A contest in running.  
3. To pull out, or away.  
4. To measure.  
5. To obliterate.  
6. Lineament.  
7. The oil plant.

FAIRBROTHER.

**2—CRYPTOGRAM.**

Dohjolely dhf aol dpuk kvao isvd  
Zvtl olhya pz nshk av ohcl pz zv  
Aolu isvd pa lhza vy isvd pz diza  
Ael dpuk aoha isvdz aoha dpuk pz ilza.

MATTIE WOODWORTH.

**3—CHARADE.**

Without my FIRST you'd look very strange.  
My SECOND, you much want to be.  
My WHOLE is what many a lady has worn  
At a ball, assembly, or play.

A. HAWKINS.

**4—ILLUSTRATED REBUS.**



**5—CHARADE.**

Puzzledom gives food for thought,  
As everybody knows;  
Some puzzles too are dressed in rhyme,  
While others are in prose.

And into kinds or classes,  
Divided, you will see:  
Of "forms" there's every shape and size,  
And "flats" in every key.

In "forms" the diamonds and squares  
Come uppermost to view,  
Though pentagons, stars and crosses  
Get a good showing too.

In "flats" there's anagrams most rare,  
Clarades, enigmas bold;  
Decapitations take the head  
Off everything, I'm told.

And some in rhyme are oft admired  
By those who ENTIRE guess  
The answer, though it be quite plain  
And easy of access.

There's others too quite difficult  
To solve, you PRIME just bet;  
But unto those who persevere  
The answer, pays the debt.

Of posers too there's many kinds,  
The "Tyro" and the "Vet."  
You'll find them in the army,  
From general to cadet.

And now, kind friends of puzzledom,  
I'll say a word or two:  
That "perseverance is success."  
I've succeeded, why LAST you?

FAIRBROTHER.

**6—CHARADE.**

I'm afraid 'twill be aspiring too high,  
If to concoct a puzzle, I should try  
FIRST, you know the puzzles are getting very hard;  
To make them, one would need to be a bard.

I'm sorry Uncle Tom is feeling bad  
At his nieces' desertion. It's so sad,  
I really think we ought to stir our brains,  
And LAST him puzzles to ease his pains.

For being silent so long you must me WHOLE,  
When I at last attempt to reach the goal  
Hoping you'll not guess this at one sly glance,  
I again become your cousin. CLARA RILANCE.

**7—NUMERICAL ENIGMA.**

My 12, 17, 3, 13, 18, is a tree and its fruit.  
My 8, 19, 5, 14, 2, is harsh.  
My 8, 7, 1, 4, 1, is soft earth.  
My 15, 11, 16, 12, 6, is to provoke.  
My WHOLE is something looked forward to by all of us as a band of puzzlers.

FAIRBROTHER.

**8—CHARADE.**

The prizes are distributed,  
And Uncle Tom once more  
Offers a noble guerdon  
To all who pull the oar,  
And help to row our ship along  
Till fame's bright shore we reach.  
"Cleverness is perseverance,"  
So Minnie May doth teach.  
So you who've never tried before,  
'Tis time to make a start,  
Though now an ALL, you soon will be  
An adept in the art.  
And though a TOTAL 'tis FIRST, LAST  
Every one once was so.  
Then join our mystic circle  
And you ne'er will wish to go.

ADA ARMAND.

**9—ACROSTIC.**

First you will find is "to bluster;"  
Second, "an iron brace;"  
Third is "one of the seasons (transposed);"  
For fourth "a game at cards" trace;  
"A circular body," and a "learned man,"  
For fifth and sixth please write;  
"Which person" will do for the seventh;  
While eighth is "apparent" and bright.  
"An Indian Prince" for number nine,  
And "neat" for number ten,  
"A soldier" put down for number eleven  
And then just rest your pen.  
Well versed in the mysteries of puzzling  
Are my primals and finals, I ween,  
Now, solvers bright, I know this night  
You'll all guess who I mean.

ADA ARMAND.

**10—ANAGRAM.**

An anagram, both short and terse,  
Will fill this little space.  
I've thought and thought, and the only one  
I can think of is, HARD CASE.

ADA ARMAND.

**11—DOUBLE LETTER ENIGMA.**

In the CLOVER on the lea,  
In the STEAMSHIPS on the sea,  
In all NOBLEMEN so free,  
With degree.

In that LITTLE DOG of mine,  
In the LINEN DRAPER'S sign,  
In the WATERS of the Rhine,  
Let it shine.

In the MIGHTY BILLOWS roar,  
In the SEAMAN cast ashore,  
In his VESSEL never more  
To explore.

When the bear doth his shadow  
Come out and find,  
My FIRST will, most surely then,  
Come to your mind.

Now my SECOND, What is it?  
Comic and queer,  
That some of our friends receive  
This time of year.

FAIRBROTHER.

**Answers to January Puzzles.**

- 1—"A friend is known in time of need."  
3-1, Never judge a person's character by external appearances.  
2, Never ridicule sacred things, or what others may esteem to be such, however absurd they appear to be.

Key: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
Z Y X W V U T S R Q P O N A B C D E F G H I J K L M

- 2—A D A M 4—Sackville.  
A P O R E M A 5—Dioxenes.  
L I M I T E R 6—Forgets.  
A L I M E N T 7—Cobweb.  
R E T A R D 8—Forsake.

- 9—Theme Them The.  
10—Dear Cousin Harry—Accept my hearty thanks for your kind invitation, and allow me to wish you the compliments of the season. Family ties prevented me from coming to that dinner, and I would have enjoyed the fun immensely in the pleasure I would have derived being with you and your company. I hope you will still continue to work for prizes, the \_\_\_\_\_, in the ADVOCATE, and give us some more of your good puzzles to solve.  
11—"Satan finds some mischief still for idle hands to do."

**Names of those who have Sent Correct Answers to Jan. Puzzles.**

Bessie C. Blain, Mary Woodworth, A. Russell Boss, Amos Hawkins, Lucy Cunningham, Willie N. Redner, Clara Rilance, E. E. Riesberry, Morley T. Boss, Tora McCoub, L. A. Boss, Dorothy Fox, I. Irvine Devitt, Drusilla A. Fairbrother, Ed. A. Fairbrother, Elinor Moore, Geo. Harrison, Sarah Moorhouse.

## NEW ADVERTISEMENTS.

## SPECIAL NOTICE.

THE FARMER'S ADVOCATE refuses hundreds of dollars offered for advertisements suspected of being of a swindling character. Nevertheless, we cannot undertake to relieve our readers from the need of exercising common prudence on their own behalf. They must judge for themselves whether the goods advertised can, in the nature of things, be furnished for the price asked. They will find it a good rule to be careful about extraordinary bargains, and they can always find safety in doubtful cases by paying for goods only upon their delivery.

All Advertisements, to insure insertion, must be in this office by the twentieth of each month.

In writing advertisers please say that you saw their advertisement in the Farmer's Advocate.

## AUCTION SALE

OF HIGH CLASS PEDIGREE IMPORTED

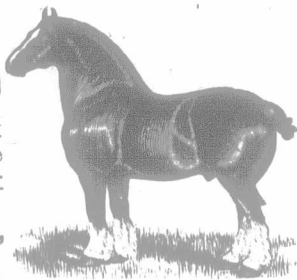
## Clydesdale Stallions and Mares

—AT—  
MITCHELL, ONT.,  
—ON—

Wednesday, Feb 12, '90

The splendid stock embracing ten stallions and three mares, all imported. For catalogue address

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PROPRIETOR,  
MITCHELL, ONT.  
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## 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 nearly 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,  
279-y 204 Farley Avenue, TORONTO.

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—BY THE—

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TITLE GUARANTEED.

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**In Central Ontario.**—In the Counties of Peterborough and Hastings, and in the Township of Sheffield, in the County of Addington.

**In Eastern Ontario.**—In the Counties of Lanark, Carleton, Prescott, and Russell, besides many lots scattered through the older sections of the province.

These lots are, generally speaking, within a short distance of a railway, and are easily accessible by good travelled roads from a market town. Many of the farms have from fifteen to twenty-five acres of clearing fenced ready for cultivation.

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Genuine

Garden

—AND—

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Seeds

FOR 1890.

## SEEDS

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JOHN A. BRUCE &amp; Co.

Hamilton, Ont.

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place your FRUIT TREES, ORNAMENTALS, GRAPE VINES, SMALL FRUITS, ETC., until you send post card for my new illustrated Free Catalogue for 1890 containing important information and Living Prices. Don't pay \$10 for stock that you can get at the CENTRAL for \$5. The Best is good enough for us all. Address

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This new and distinct variety has a long grain with very thin skin; heads long and closely filled with choice heavy grain; has bright, stiff straw, and is well adapted for poor, thin soil. They stool freely, and are a very large yielding variety. Price, per lb., 25c. post paid, per peck, \$1.50, by freight or express at purchaser's expense. As our stock is very limited we cannot offer them in larger quantities than above.

OUR ILLUSTRATED AND DESCRIPTIVE SEED CATALOGUE FOR 1890, of field, garden and flower seeds, seed grain, grass seeds, fertilizers, etc. now ready and SENT FREE TO ALL WHO APPLY. Address

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Also our Dairy Goods Catalogue, which will be ready to mail about the 15th of February. A sample of these goods may be seen at our store in London or at the FARMER'S ADVOCATE office, Winnipeg, Manitoba.

## SELECTED FARMS

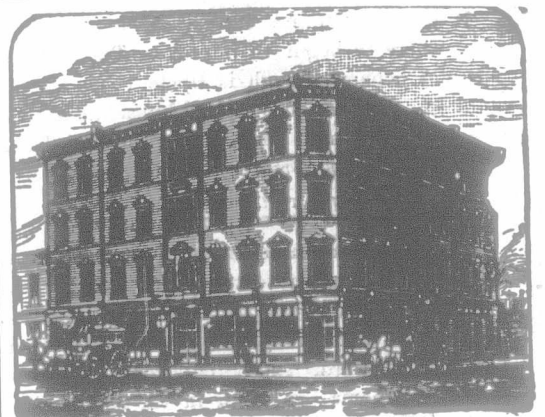
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Midway between Northern Pacific &amp; Manitoba Railway and C.P.R. Depots.

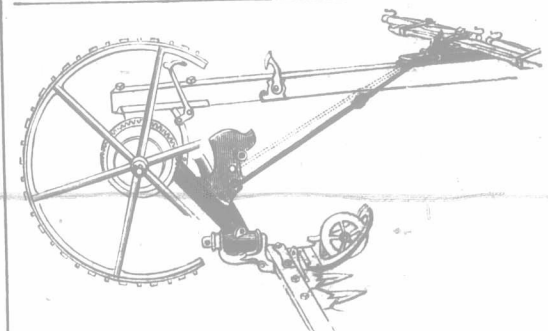
## NEW DOUGLASS HOUSE!

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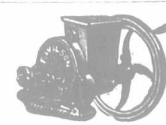
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IMPROVED

**FARMS FOR SALE!**

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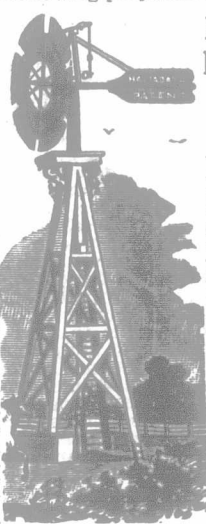
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**Business College Bulletin.**

VOL. I. ST. CATHARINES, ONT. No. 1.

The St. Catharines' Business College will, for the coming year at least, give in this space a brief record of its progress, work and successes, together with a short account of its facilities and other matters of interest to the readers of this most excellent journal.

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W. H. ANGER, B. A.,

President.

286-y



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— WORTH OF —

**STOCK, IMPLEMENTS, ETC**

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- 3rd. Competitors may send in their lists weekly if they so desire. The party who first sends in the full number of names will secure the prize.
- 4th. A Cash Commission will be allowed to all who are not prize winners: From 10 to 20 names, 25cts. each; 20 to 50 names, 35cts. each; 50 to 100 names and upwards, 40cts. each.

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We will give as subscription prizes young animals, either male or female, of any of the following breeds: Shorthorns, Herefords, Galloways, Ayrshires, Jerseys, a bull or heifer (of fair quality), purely bred, for 100 new subscribers, accompanied by \$100. We can also supply home-bred or imported stock of any desired breed, age or quality. In all cases we will guarantee satisfaction as to the quality, breeding and value of the animal. We will give very liberal terms to agricultural and other societies, and farmers in new sections, special inducements in sheep and poultry. Write for particulars.

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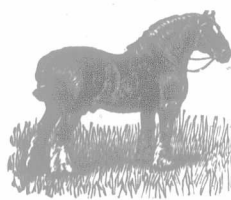
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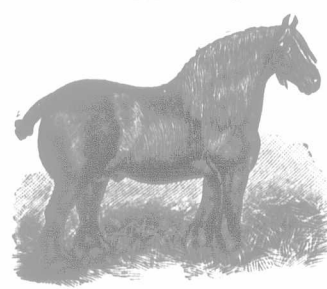
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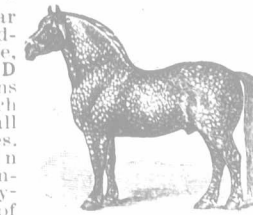
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**ABERDEEN, ANGUS, HEREFORD,**

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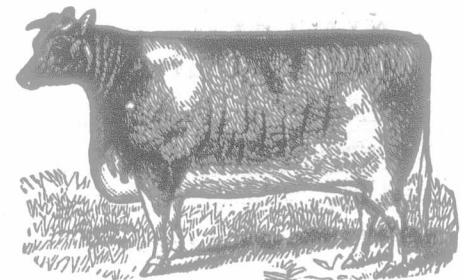
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Choice Young Bulls and Heifers of the above breeds for sale at moderate prices at all times. A few nice, young Hereford Bulls, by Cassio, at low prices if taken at once.

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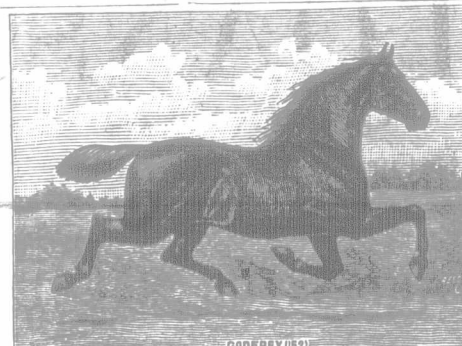
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I have for sale by far the best lot of young animals of both sex that I have ever offered. My yearlings are especially good; they are all by imported sires, and mostly out of imported dams. I have a number of excellent imported and home-bred Clydesdales of both sex for sale.  
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Greenwood P. O. and Telegraph Office, Claremont Station, C. P. R., or Pickering Station on the G. T. R. Parties met at either station on shortest notice. Come and see them.  
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**FRENCH COACH HORSES.**  
Large, Stylish, Standard-Bred American

**Carriage Horses.**  
Choice quality. Terms reasonable. Correspondence solicited. Mention this paper.

**A. O. FOX, WOODSIDE FARM,**  
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**300 PERCHERONS,**  
**100 FRENCH COACHERS**

Comprising my importations for 1889, are now on exhibition at

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This collection embraces all the FIRST and SECOND PREMIUM STALLIONS (with one exception); the First Premium for best Collection of Stallions; a majority of First and Second Premium Mares; and the greatest of all Percheron Shows, held at La Ferte Bernard, from May 29, to June 2, 1889.

The quality of this stock is guaranteed superior to any importation that ever crossed the water. In addition to the superior Draft animals which have ever characterized my selections, particular attention has been given to the selection of Coach Stallions, which is the largest ever brought from France by any importer. Conspicuous among this lot is the selection made from the famous stable of Edward de-la-Ville, being the only party that was willing to pay the price that would bring the quality of horses handled by Mr. de-la-Ville to this country, he having been the recipient of more show ring honors than any other owner of Coach horses in Normandy. It will be to the interest of intending purchasers to make a careful examination of quality and prices before buying. I desire to impress upon my customers that, as heretofore, I was the first American buyer in France this season, and my selections are made from the leading Stud, and having the first choice of all of them, I spared no expense to secure the best. All stock fully guaranteed. Favorable prices and terms. For particulars, address,

**W. L. ELLWOOD, Proprietor,**

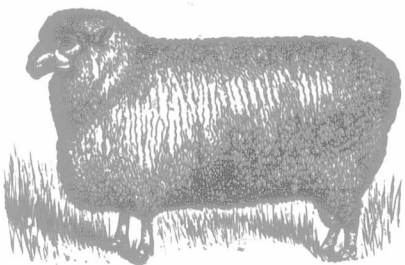
DeKalb, Illinois.  
DeKalb is situated on C. & N. W. Ry. 58 miles west of Chicago.  
288-y



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Brougham, Ont.

Extensive breeders and importers of **Clydesdales, Shorthorns and Shropshires.** Business established in 1848. We always have on hand and for sale a large number of imported, and home-bred animals. A visit, or correspondence solicited. 282-y

**COTSWOLDS, BERKSHIRES AND SHORTHORNS**



For many years my flock has been the largest and best in Ontario County. A number of sheep and cattle always on hand for sale. Come and see me, or write for particulars.

**JOSEPH WARD,**  
MARSH HILL, ONTARIO.  
279-y

**Prize Winning Ayrshires for Sale.**



**GURTA 4th**  
(1181)  
Mine is one of the largest and most successful show herds in Canada. They are finely bred and of great individual merit. Bulls, heifers and cows always on hand for sale; also a few good Leicester sheep. Correspondence solicited. Visitors welcome. Address

**THOS. GUY,**  
Sydenham Farm, Oshawa, Ont.  
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—AND—  
**COTSWOLDS.**

**J. G. SNELL & BRO.**  
EDMONTON P. O.,

Brampton and Edmonton Railroad Stations.

For forty years we have led all others in these lines, both in the show yards and breeding pens. We now have a choice lot of young pigs varying in age, from six weeks to six months, all are descended from fashionably bred prize winning English stock. We also have a grand lot of Cotswolds; a large number of which are yearlings. Good stock always for sale. Visitors welcome. Write for particulars. 279-y

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—AND—  
**COTSWOLDS**  
**FOR SALE.**

My Shorthorns are well bred, good colors, and have been fine milkers for generations. I have over 100 females and a large number of bulls, from which buyers may select. Prices to suit the times. Satisfaction guaranteed. Correspondence promptly answered. Visitors welcome.

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CRAMPTON, ONTARIO,

Importers and Breeders of



**OHIO IMPROVED CHESTER WHITE SWINE,** also Suffolk and Berkshire Swine. Sixty fine fall pigs, now fit to ship, from prize-winning stock. All breeding stock recorded. Correspondence solicited. Single rate by express. 286-y

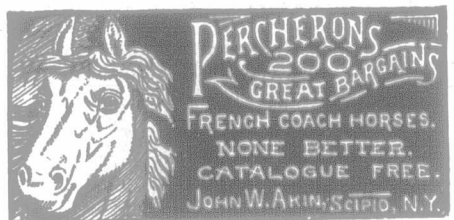
**SHIRE HORSES.**

We have a choice selection of Imported Stallions and Mares always on hand. Having a partner resident in England our expenses are very light, and we are able to sell at figures 25 per cent. lower than any other importers.

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We were the first importers of pedigreed Yorkshires in Canada. All our stock is registered, and our motto is, "A good pig with a straight pedigree at a fair price." Our terms are, "Satisfaction guaranteed or money refunded."

Also Pure-bred Shropshires, Imported and Canadian-bred; all registered. —**ORMSBY & CHAPMAN,** The Grange Farm, Springfield-on-the-Credit, Ont. Stations—Streetsville, on the C.P.R., and Pt. Credit, on G.W.R. 285-y



**DAVID BIRRELL, Greenwood, Ont.**

Breeder and Importer of First-class

**Clydesdales, Cotswolds**

—AND—  
**Scotch Shorthorns.**

**YOUNG and BREEDING STOCK for SALE** at prices to suit the times. A call or correspondence solicited. Pickering is my station on the G. T. R., and Claremont on C.P.R. 286-y



**D. ALEXANDER,**  
Brigden, Lambton Co., Ontario.



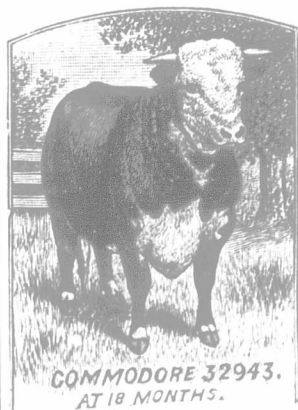
My Shorthorn herd now consists chiefly of Imp. Lady Violet Lustre and seven of her daughter's, and two daughters of Imp. Beauty 15th, almost all sired by one bull, and of one character, thick, and fine quality. Can furnish a splendid young herd, including an imported bull. Trains twice daily. Station one mile. 282-y

**SYLVAN HERD**

—OF—  
**SHORTHORN CATTLE.**

Animals of both sexes for sale.

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Springdale Farm,  
OSHAWA, - ONTARIO,

Breeder & Importer  
of Pure Bred

**HEREFORD CATTLE**

Forty first-class animals, of various ages, for sale.

An inspection solicited. 287-y

**FOR SALE.**

Two Durham Bulls, one twenty-two months old and one sixteen months, both registered.

**SAMUEL RANKIN,**  
Fairview P. O., Ont.  
290-a

**BLYTHEWOOD HERD OF SHORTHORNS**

**FOR SALE**

Several young Bulls fit for next season. D. H. B. pedigree.

**J. & R. McQUEEN,**  
SALEM, ONTARIO.  
290-b

**MAPLE LODGE STOCK FARM.**

As we do not intend making a public sale this year, we are now offering for sale first-class Cows, Heifers and young Bulls very, very cheap. Some of them from our best milking strains. Come and see them.

**JAS. S. SMITH,**  
Maple Lodge P. O., Ont.  
280-a

**E. D. GEORGE**

PUTNAM, - - ONT.

Importer and Breeder of  
**Ohio Improved Chester White Swine**

I have bred fourteen choice Sows for spring trade; have used four imp. boars. Orders booked for spring pigs in pairs not akin. Pedigrees furnished. Prices right. Special rates by express. 282-y

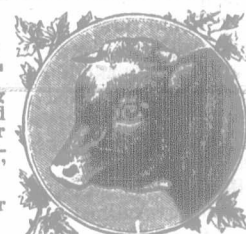


**YOUNG SHORTHORN BULLS.**

We offer for sale young bulls of fine quality and good pedigree, got by our prize-winning — "Matchless" bull, "Lord Lovell!" — 2830—

Write for particulars or come and see.

Also a quantity of "Banner" Oats. — **E. GAULT & SONS, St. Melens, Ont.,** Lucknow Station, G. T. R. 290-1f



**FOR SALE.**

One good Durham Bull Calf, twelve months old—a good animal and a good pedigree; also the two imported stallions, Andrew Lammie (6433) and Balbagardy Hero (6458), both rising three years. Andrew Lammie was second prize in his class at the Provincial Exhibition last fall, and is out of the same dam as Mr. Beth's Sir Maurice, the silver medal and sweepstake horse in both London and Toronto last fall; both are sired by the noted horse McCamon (3818). I am one mile east of St. Marys. Come and see me, or write for particulars.

**HUGH THOMSON,**  
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**BERKSHIRES**

—AND—  
**LARGE YORKSHIRES**  
A SPECIALTY.



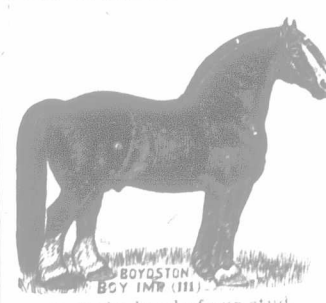
We are now prepared to book orders for spring delivery pigs of the above breeds. Also for sale a few fall pigs, Ayrshire, Cattle, Shropshire and Southdown Sheep. Call or write for what you want.

**W. H. & C. H. McNISH, Lyn, Ont.**  
287-y

**D. & O. SORBY, GUELPH, ONT.,**

Breeders and Importers of

**FASHIONABLY BRED CLYDESDALES**



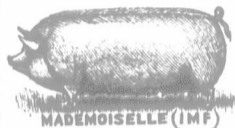
**BOYOSTON BOY 1276 (III)**  
is at the head of our stud.

We always have on hand a large number of imported and home-bred Clydesdales (male and female) of good breeding and quality, which we will sell at honest prices. Our specialties are good and well-bred horses and square dealing. Come and see us or write for particulars.

277-y

IMPROVED LARGE (WHITE) YORKSHIRE PIGS.

Specially selected from the celebrated herd of F. Walker-Jones, England, who won upwards of \$10,000 in prizes in three years. Registered boars and sows for sale. Apply to GREEN BROS., Innerkip, Ont., or J. E. BRETHOUR, Burford, Ont.



TOP GALLANT FARM FOR CLYDESDALES

Now on hand and for sale a choice collection of pure-bred stallions and mares, which are winners at all the biggest shows, and gets of such famous sires as Top Gallant, Jordarshaw, Old Times, Sir Hilderbrand, St. Malcolm, Baron O'Treave and Lord Hopeton; also a few choice Shetland and Highland Ponies. Visitors always welcome.

T. W. EVANS, Yelverton, P.O., Ont. Pontypool Station and telegraph office, C.P.R.

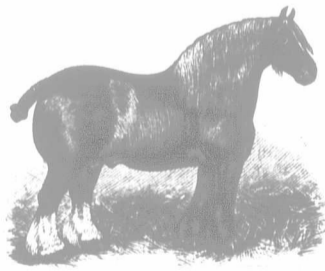
BREEDERS OF DRAUGHT STOCK

Notice is hereby given that the receiving of entries for registration in Volume B of the Dominion Draught Horse Stud Book will close on March 1st, 1890, after which the standard of registration will be raised to three crosses for stallions and mares. Dams with two crosses will then require to be also registered to admit progeny, but mares entered alone must have three crosses. No entries on the present standard will be received after that date, and parties interested will do well to govern themselves accordingly.

Blank entry forms and all information will be promptly furnished on application to the undersigned. By order of the Council.

JAMES MITCHELL, Secretary, GODERICH, ONTARIO.

Imported and Registered CLYDESDALE AND HACKNEY STALLIONS AND MARES



Highest Prize-Winners in Scotland and Canada.

The get of such famous sires as Lord Erskine, Old Times, Chief Justice & Fireway.

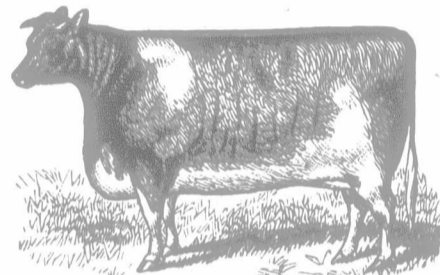
Stallions to be seen at Ferris' Stables, Portage la Prairie, and mares at the Ridgemere Stock Farm. Also registered HOLSTEIN BULLS one and two years old, got by such bulls as African Prince, Emperor of Canada, etc. Apply

EVEREST & KERR, Ridgemere Stock Farm, 6 miles west of Winnipeg. REABURN, MAN.

MY SOUTHDOWN SHEEP

are descended from the well-known flocks of Lord Walsingham, Jonas Webb and Sir William T. Mockmorton, and are thoroughly acclimatized. Prices to suit customers.

J. L. VINING, POPLAR POINT, MANITOBA.



PIONEER HERD OF SHORTHORNS.

Walter Lynch, Proprietor, Westbourne, Man. Fifteen first and one second herd prizes in sixteen years. A choice lot of young bulls for sale.



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Imported Clydesdale Horses, Stallions and Mares, Shorthorn Cattle, young Bulls and Heifers, all Registered and of the most fashionable breeding, for sale at reasonable prices. Inspection so invited. JOHN E SMITH, Box 274, Brandon, Man. P.S.—Always on hand high grade Brood Mares, suitable for Agricultural purposes.

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Herd contains prize winners at Ottawa, Toronto, Guelph, Brandon and other shows.

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J. G. BROWN, Manager, Hope Farm, St. Jean Baptiste, St. Jean, N. P. & M. Ry, 4 1/2 miles, Morris, C. P. Ry, 10 miles.

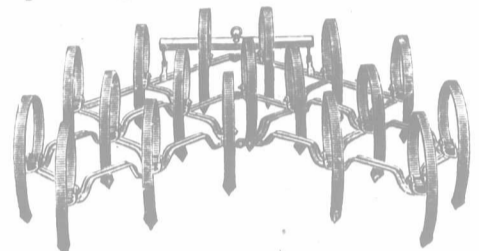
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The Best is Always the Cheapest.

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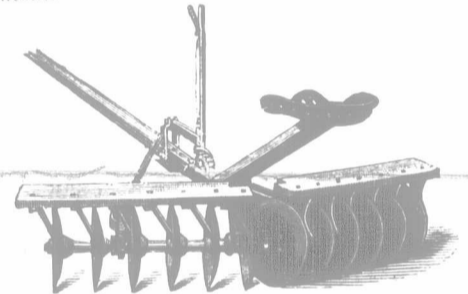
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Spring Tooth Harrow



STRONG, DURABLE, HANDSOME.

The Stevens is the best for the following reasons:—Lightest draft Harrow in the world. All steel frame. No wood to decay. A superior tooth holding clip. Spring teeth readily adjusted. Only one nut to loosen. Perfect device for securing the nuts. Frame rigidly rivetted together. Nothing to wear out. Fully warranted and protected by letters patent.



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PULVERIZING HARROW

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Responsible agents wanted in every section of the Dominion. Will give exclusive control of territory under satisfactory conditions. We have the sole and only right to make either of the above Harrows in Canada. Both are broadly covered by patents, and infringements will be prosecuted.

We have sole agency for Canada for the celebrated French Burr Stone Feed Mills. Write for circulars.

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W. A. DUNBAR VETERINARY SURGEON,

151 Jemima St., - - Winnipeg.

Communications by letter, or telegrams, promptly attended to.

TELEPHONE 56. 289-y-M

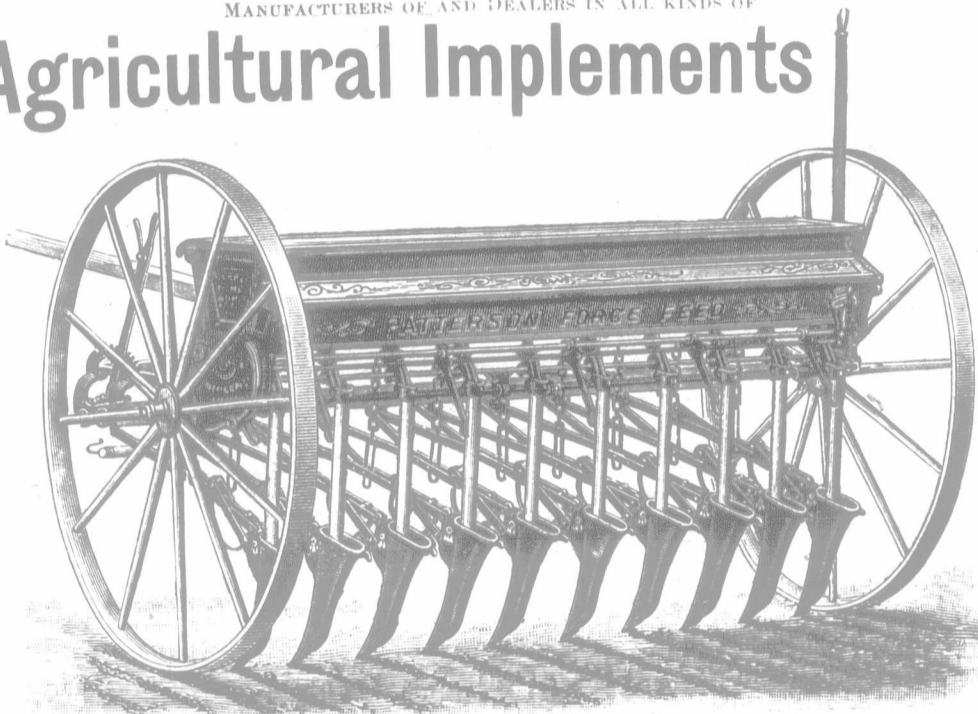
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- MEREDITH, FISHER & BEATTIE.** London, Ont., Barristers, Solicitors, &c.
- GRAYDON & McCANN,** 78 1/2 Dundas St., London, Ont., Barristers, Solicitors, &c. Money to lend.
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- REID BROS. & CO.,** 389 to 395 Clarence St., Paper.
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- ELLIOTT BROS.,** 155 Dundas St., London, Ont., Grocers, and dealers in Wines and Spirits.
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- NEW YORK STORE,** London, for the last 25 years has been known as the reliable house for Teas.
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- E. BURKE,** 521 Richmond St., London, Ont., dealer in Photographic Goods, Amateur Outfits, &c.
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- JOHN M. MOORE,** P. L. S., Architect, Civil Engineer, Albion Buildings, London, Ont. 288-y
- PETHICK & McDONALD,** 203 Richmond St., Merchant Tailors and importers of French, English, Irish & Scotch Cloths, Tweeds & Gents' Furnishings.
- GRIGG HOUSE,** corner York & Richmond Sts., London, Ont., SAMUEL GRIGG, Prop.
- CITY HOTEL,** London, Ont., cor. Dundas and Talbot Sts. Board \$1 per day. McMARTIN BROS.
- W. STEVELY,** 361 Rich. St., manufacturer Dairy Utensils, general Tinsmiths, Stoves, &c.
- WINLOW BROS.,** 118 Dundas St., London, Ont., dealers in Boots, Shoes and Rubbers.
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- JOHN T. STEPHENSON,** Furniture Dealer and Undertaker, London, Ont.
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- FARMERS** supplied with Laborers, Pupils and other labor. Address, Colonial Agency, 2 Billiter Street, London, E. C. 280-f
- ST. LAWRENCE HALL,** Montreal. This hotel is conveniently situated in the heart of the business centre; 250 Rooms. S. Montgomery, Manager. Henry Hogan, Proprietor. 288-y

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WESTERN HEAD OFFICE: WINNIPEG, MAN.



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**J. H. TENNENT,**  
**VETERINARY SURGEON**  
 LONDON, ONT.

## STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate.

Thos. McMichael, Seaford, Ont., has sold a fine two-year-old Canadian-bred stallion to an American buyer for the handsome sum of \$400. This colt took second prize at London last fall fair. He has also four fine ones left.

In a business letter from Mr. John Hope, Brantford, he refers to the following sales the past month:—Cupbearer to M. A. Householder, Columbus, Kansas; Baron Waterloo to the Ontario Agricultural College, Guelph, and Earl Fame 8th to James Lindsay, Fergus, Ont.

The annual meetings of the Sheep Breeders' and Hog Breeders' Associations will be held in Toronto about the middle of March, all parties who wish to attend may procure railroad certificates from the Secretary, F. W. Hodson, London, Ont., which will entitle them to reduced fares on all railroads. All applications should be sent in by the 1st of March.

George Thomson briefly says:—Having purchased a pair of imported Improved Yorkshire White pigs last fall, I wish to let you and the public know their growth since. I had them weighed the night I took them home, and they weighed 68 lbs. In seven weeks after they weighed 224 lbs., being a gain of 156 lbs. They have been well fed, but not more so than what was good for them.

F. D. George, Putnam, Ont., writes that since last report he has made the following list of pedigreed Chester Whites:—To H. Allen, Hopeville, one boar; J. Fletcher, Bensfort, one boar; J. Stevenson, Leaskdale, pair of sows; F. Cruickshank, Lions Head, one boar and two sows; Wm. Daffoe, Laurel, one pair; J. Armstrong, Stanton, one pair; R. Harding & Son, Redgrave, three sows; W. Edwards, Glen Ross, one pair; H. Todd, Randolph, one boar; T. Fairs, Bradford, one boar; J. Alway, Simcoe, one boar; W. Gourlay, Huntley, one pair; C. E. Whidden, Antigonish, two sows; R. Furness, Charlottetown, P. E. I., one pair; J. Newson, Brighton, one pair; J. Little, Wingham, one pair; E. B. Eddy, Hull, one boar; W. Campbell, Campbell's Cross, one boar; A. L. Lloyd, Lloydtown, one boar; J. W. Neville, Napanee, one boar and two sows; J. Woodruff, St. Catharines, one pair; P. Graham, Bethany, one pair; T. Baylis, Trowbridge, one pair; V. Lyons, Orangeville, one pair; J. Hoare, Auburn, one boar; J. B. Devins, Emery, one boar; W. Pepper, Springfield, one boar; R. Harding, Thorndale, one pair; J. Dowling, Woodstock, one boar; J. Street, Wyoming, one boar; G. Hall, Springfield, one sow; J. Mitchell, Dorchester, one sow; J. Brown, Forest, one boar; H. Hoard, Owen Sound, one pair; C. D. Moore, Peterboro', one sow; E. Keeler, Prescott, one pair; J. Douglas, Norwood, one sow; S. P. Knight, Stanbridge, P. Q., one pair; R. Kelso, Mossley, one pair sows; F. Foster, Ingersoll, one sow. The demand is good and prospects most flattering.

Messrs. Ormsby & Chapman, The Grange Farm, Springfield-on-the-Credit, say:—Our Shire horses have gone into winter quarters in splendid shape, although none of the colts are fat, as we do not believe in high feeding for young horses. We have exhibited selections from our stud this year at all the principal shows in Canada, and at the International Fair at Buffalo, N. Y. Out of a possible thirty-six prizes, we have taken thirty-three; not a bad record, we think, as it includes two firsts and three seconds at Buffalo where we showed against some of the principal importers in the United States, and first in every class for Shire Stallions in Toronto, except aged horses, in which we had no entry. From the letters we have received, our customers, we are glad to say, appear to have had good success with the Shires they have purchased from us. Mr. E. F. Black, of Raymond, Neb., U. S., writes us:—That the Shire colt Leake Staunton, purchased from us last March, took fourth place at the State Fair at Lincoln, Nebraska, and first at two county fairs; and Mr. E. M. Jarvis, of Oakville, carried off the red ticket at Toronto with the three-year-old Shire filly Leake Lively, purchased from us last winter. We have had a great many inquiries for Shires, both from the United States and all parts of Canada, and we expect to empty a good many stalls before long, as we are putting our prices at the lowest possible figures. In improved pedigreed large Yorkshire pigs we have done a large trade, having sold between \$1,500 and \$2,000 worth since January, 1889. We were not disappointed at not receiving many prizes on pigs at the various shows, as we showed our stock all in breeding condition, preferring to do this and do without prizes rather than fatten our breeding stock, and so injure, probably irreparably, our herd. In spite of this, we carried off at the Provincial Fair at London the 1st in the aged class, and the diploma for the best large breed boar on the ground, with our stock boar Pat. The following are some of our latest sales:—Rathbun & Blakie, Deseronto, Ont., one pair; F. A. Gage, Simcoe, Ont., one pair; D. Evans, Beaverton, Ont., one pair; C. Strucher, Wellesley, Ont., one pair; Jas. Coutts, Barrie, Ont., one pair; E. Foster, Clarksburg, Ont., one pair; Wm. Grigg, Grimsby, Ont., one boar; Wm. Shade, Clarkson, Ont., one boar, two sows; Robt. Hall, Edmonton, Ont., one sow; Robt. McCullough, Edmonton, Ont., one sow; Jno. McClure, Brampton, Ont., one sow; Levi Pike, Macklem, Hamilton, Ont., one sow; Levi Pike, Locust Hill, Ont., one sow; N. Machell, Aurora, Ont., one boar, two sows; Geo. Thomson, Bright, Ont., one sow; J. Hodgson, Shelburne, Ont., two boars; C. N. Christner, Haysville, Ont., one pair; T. G. Smith, Rosemount, Ont., one boar.

Subscriptions and Mail Matter for Manitoba and Northwest Office must be addressed Box 214, Winnipeg.

**FAY CURRANT GRAPES** LARGEST GROWER OF GRAPE VINES IN AMERICA  
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NEW GRAPES, ESTHER (white), and ROCKWOOD (black), originated by E. W. BULL, originator of the CONCORD GRAPE. Also EATON, MOYER, and all others, new and old. Best and Cheapest. Small Fruits. Free Catalogues. GEO. S. JOSSELYN, Fredonia, N. Y.

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NIAGARA and all old and new varieties. *Extra Quality.* Warranted true. *Lowest rates.* Introducing of the new Black Grape  
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Also other SMALL FRUITS. Descriptive Catalogue Free. Send list for prices.



## THE AMERICAN BANNER OATS.

These oats are a desirable acquisition. They have been grown four years, and are distinct from any other variety hitherto in the market. They have not shown the slightest tendency to rust, and have invariably yielded crops largely in excess of Welcome and American Triumph, etc. Over one hundred bushels of the "American Banner" have been raised to the acre. Two fields of this variety yielded 70 bushels to the acre from land which had no fertilizer. An adjoining field of common oats produced 35 bushels to the acre. Mr. John Miller, of Markham, raised 90 bushels per acre in 1888; and 96½ in 1889. His neighbor, Mr. Hawkins, got 95 bushels from an acre, as against 30 bushels of "New Zealand," in the same field. THIS PAYS. The grain is large, white and plump, weighing from 34 to 45 pounds to the measured bushel. Ripens quite early. Straw is stiff, of good strength, but not unusually heavy, bearing its grain in long, symmetrical heads. These oats tiller freely, and can be sown thinner than is customary. Price, post-paid, 1 lb., 25c.; 5 lbs., \$1.00; by express or freight, at expense of purchaser, peck, 40c.; ½ bushel, 75c.; 1 bushel, \$1.25; 5 bushels or more at \$1.00 (bags 25c. each).

Our 1890 Catalogue is the largest, the handsomest of any issued. New Clovers for the Northwest are described. It is priced at 20c., which may be deducted from first order sent in, or we will send 1 lb of Banner Oats by mail prepaid, or 5 packets of vegetable or flower seeds and catalogue included for a remittance of 25c. It will pay every amateur, gardener, florist and farmer to send for it.

THE STEEL BROS. CO., Ltd., TORONTO  
290-a-O.M

## F. A. FAIRCHILD &amp; CO.

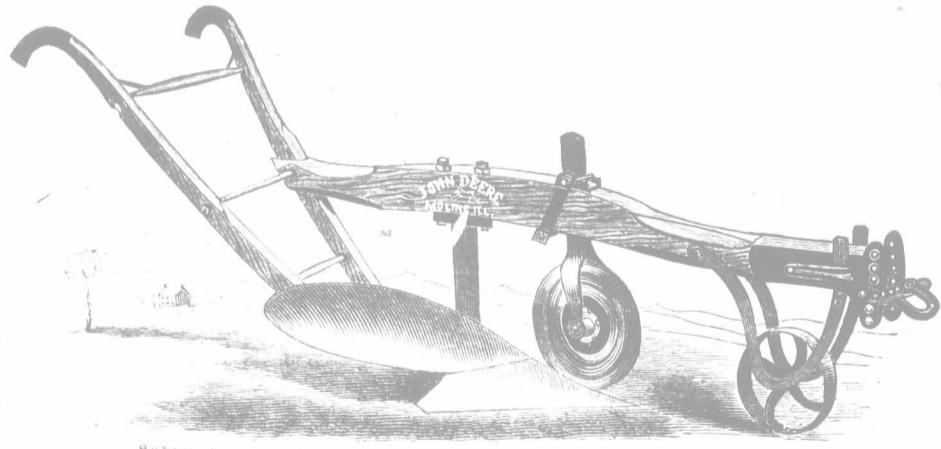
—ARE SOLE AGENTS FOR—

The Genuine "John Deere" Plows,  
The American Monitor Improved Press Drills.

FARMERS

You ought to look out for so called imitations. You don't want to experiment with any imitation goods. For 13 years the "Deere Plows" have pleased the Manitoba farmers.

YOU WANT THIS AND NO OTHER.



Be sure you ask our Agents for them.

Spring will soon be here and you will want a new set of Harrows, a Moline or Speight Wagon. Give us a call, or write us for prices and terms.

F. A. FAIRCHILD & Co

62 and 64 Princess Street, Winnipeg, Manitoba.

## Imported Clydesdale & Hackney Stallions for Sale

Highest Prize Winners in the Leading Shows of the World  
AND GETS OF FAMOUS SIRES

Such as Lord Erskine, Darnley, Old Times, McCammon, Garnet Cross  
Macgregor, Prince Edward, Prince Henry, Sir Wyndham,  
Good Hope and Fireaway.

Prices Reasonable. Catalogues Furnished on Application.

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BOWMANVILLE, ONT.

Bowmanville is on the line of the G. T. R., 40 miles east of Toronto  
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## CLYDESDALE AND HACKNEY

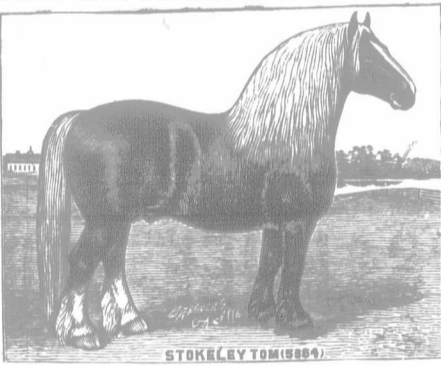
STALLIONS AND MARES

Constantly on hand, and For Sale at Reasonable Terms.

Our last importations comprise a large number of one, two,  
three and four-year-old registered stallions and mares, the gets  
of such sires as Macgregor (1487), Darnley (222), and Prince of  
Wales (673). Also a few choice **SHETLAND PONIES**. Cor-  
respondence solicited, and visitors always welcome.

**GRAHAM BROTHERS**

Twenty-five miles east of Toronto, on the C. P. R. 278-y CLAREMONT, ONT.



**BLAIR BROS., Aurora, Ill.,**

—IMPORTERS OF—

**CLYDESDALE, ENGLISH SHIRE,  
and CLEVELAND BAY HORSES.**

NEW IMPORTATION JUST RECEIVED.

The animals now on hand are of large size, good colors;  
low, wide and blocky; with good heavy bone, good feet,  
and the best of action. We have winners at many of the  
greatest shows of England. We offer first-class animals  
of the choicest breeding at very low prices. Every  
animal recorded and guaranteed. Visitors welcome.  
Catalogue on application. Stables in town. 287-f  
Mention this paper.

## T. W. PALMER'S LOG CABIN STOCK FARM!

150 PERCHERONS,  
100 JERSEYS.

To be Disposed of this Season.

For catalogues and particulars address

4 MERRILL BLOCK, Detroit, Mich.



DISPERSION SALE

—OF—  
**SHORTHORN CATTLE, SHROPSHIRE SHEEP**

—AND—  
High-class Agricultural Brood Mares  
AND FILLIES,

ON WEDNESDAY, MARCH 19, 1890.

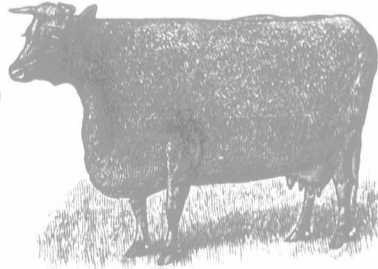
WE WILL SELL BY PUBLIC AUCTION

At Our Farm, 5 Miles South of London, Ont.

80 head of Shorthorn Cattle, comprising two imported Cruickshank Bulls, and Cows and Heifers of similar  
breeding, with representatives of families, as bred by Silvester Campbell, Kenellar, W. S. Marr, of Upper  
Mill; also, a choice lot of imported Shropshire-down Sheep; and in foal Farm Mares and Fillies of extra  
good quality and breeding.

The proprietors have reluctantly concluded to sell, without reserve, on account of two of the firm  
having made other business arrangements, and are therefore giving up farming.  
Terms: A credit of eight months, on approved paper. Teams will be at the station, London, and  
drive visitors to the farm the day of and evening previous to sale. 280-b

**FRANK R. SHORE & BROS.**



### STOCK GOSSIP.

James Smith, Maple Lodge P. O., Ont., writes:—  
We have had the following additions to our herd by  
birth during the past month: Lovely Queen 3rd, a  
red heifer; Lovely Queen 4th, a red bull; Duchess  
Jane 5th, a dark roan heifer; Princess Constance  
Ninetzin 2nd, a red bull; Rosy Queen 2nd, a red  
heifer; Constance of Maple Lodge, a red heifer.  
All are growing nicely.

Mr. J. C. Snell, Edmonton, Ont., writes:—I was  
delighted to learn that at the Christmas show of the  
Smithfield Club the championship prize for the best  
pair of pigs of any age or breed was won by Mr.  
N. Benjamin, Motcombe, Dorset, with two young  
Berkshire sows, which were own sisters of our  
imported boar Royal Star, himself the winner of  
seven first prizes and a championship at leading  
shows in England last year. These are said to have  
been a wonderful pair of pigs, weighing quite  
twenty scores each, at 8 mos., 3 wks. and 6 days old,  
and were sold to a Reading butcher for £29, or  
about \$145. The London Live Stock Journal, com-  
menting on the show, says: "Of the pair which won  
first prize in the older class, and also the breed cup,  
one died immediately after the award was made,  
and so could not come to the scratch in the champion  
contest," and adds, "This is a feather in the caps of  
the breeders of Berkshires, having at least two pens  
good enough to win the championship." Mr. Snell  
adds, "They had at least three pens good enough for  
the reserve number, for the championship was also  
a pair of Berkshires."

John Miller & Sons, Brougham, Ont., write:—We  
are having an open winter with no snow. Stock of  
all kinds doing well. Business has been rather dull,  
as it always is at holiday times, but now we are  
having lots of applications for horses, bulls and  
rams, and a few for mares, cows, heifers and ewes.  
We have this season sold considerably over five  
hundred pure-bred Shropshires, and we will sell  
another hundred in the next sixty days. We have  
on hand our usual number of breeding ewes, all  
imported, and all, but six, two years old past. We  
consider this the most valuable age. We also have  
about one hundred rams; they are selling fast. We  
have the very best lot of stallions we have ever had,  
and they are going to be the very best and most  
profitable kind of shape for next season. Our mares  
are doing well and nearly all in foal. We have a  
few choice young bulls and the best lot of heifers  
we have ever had. Our stock bulls, Vice Consul and  
Northern Light, are looking and doing well. We  
have a nice lot of calves just dropped, mostly  
heifers.

The Woodside flock of Southdown sheep made  
the rounds of the shows of 1889 with marked  
success, securing 116 prizes, amounting to nearly  
\$1,700. Mr. Jackson has made the following sales  
at good prices:—One ram and two ewes, J. M. Peck,  
Hornellsville, N. Y.; one ram lamb, A. Hammer,  
Rosehill, Ill.; one ram, H. J. Haight, Dover Plains,  
N. Y.; one ram, W. H. Bly, Harmony, N. Y.; one  
ram lamb and three imported ewes, Wm. V. Hamil-  
ton, Caledonia, N. Y.; one imported ram, F. A.  
Scott, Hantsville, Mo.; one ram lamb, David Dale,  
Glendale, Ont.; one ram lamb, Geo. Glen, Carlow,  
Ont.; one ram, G. E. Cresswell, Egmondville, Ont.;  
one ram lamb, W. A. Wood, East Smithfield, Pa.;  
two imported ewes and three ewe lambs, W. A.  
McCoy, Mercer, Pa.; one ram lamb, Mr. Turnbull,  
Calisterville, Ont.; one ram, Mr. Colquhoun, Hamil-  
ton; two ram lambs, three imported ewes and five  
ewe lambs, C. C. Noble, Theresa, N. Y.; one ram  
lamb and two imported ewe lambs, John N. Camp-  
bell, Ridgetown, Ont.; one ram lamb, A. R. Kidd,  
Warsaw, Ont.; one ram lamb, J. Bethel, Fort Dal-  
housie, Ont.; one ram, A. Adkins, Newport, Ohio;  
one ram, A. Frank & Son, The Grange, Ont.; one  
ram, H. Savage, Shefford, Que. The demand for  
really good sheep never was better.

Smith Bros., Churchville, Ont., in a recent letter  
say:—Last week we shipped four head of Holstein  
cattle to Reginald Bishop, Round Hill, Nova Scotia.  
They were Kramer 2nd, from Lord Ripon and  
Kramer; she took 1st prize at Provincial Exhibi-  
tion last year, and has become a very stylish heifer,  
and has shown herself a good breeder from her calf.  
With her went Valley Princess, one of the most  
promising two-year-olds, in our herd. She is from  
our Duke of Edgely and Finette; she from Miss  
Parma, whose dam Grietje gave 83 lbs. of milk per  
day; and Nettle, whose dam gave 82 lbs. of milk per  
day, and 17 lbs. 4 oz. of butter in seven days.  
Jennie Stapel, another two-year-old, of excellent  
quality and promise, is from our Duke of Edgely;  
and Jacoba Stapel, whose dam has a milk record of  
83 lbs. per day, and a butter record of 17 lbs. 12 oz.  
in a week. With these went Mink's Mercedes King,  
a young bull of remarkable breeding and promise.  
He is from Bell of Orchardside 2nd, who took 1st  
prize and the diploma as best female of any age at  
London Provincial; also, 1st prize at the Toronto  
Industrial; she, as a three-year-old, has been aver-  
aging over 4 gals. of milk per day since calving on  
Oct. 2nd. She is from Belle of Orchardside, whose  
dam Slepke gave during the last year 13,021 lbs. of  
milk. The sire of the young bull is Mink's Mercedes  
Baron, whose dam has a milk record of 96 lbs. per  
day, and 16,285 in a year, and a butter record of  
20 lbs. 9 oz. in seven days; his sire is Mercedes  
Prince, out of Mercedes, who produced 90 lbs. 6 1/2 oz.  
of butter in thirty days, and won the Breeder's  
Gazette challenge shield, open to cows of all breeds.  
Baron's six half-sisters have averaged 16 lbs. 5 oz. of  
butter in seven days as two-year-olds, and one  
three-year old made 25 lbs. 15 1/2 oz. in a week. We  
feel sure that Mr. Bishop, with such a foundation  
herd, will show the people of the Maritime Pro-  
vinces that the Holsteins are worth the study and  
consideration of all breeders who wish for a breed  
that is profitable in milk, butter, cheese, and beef.

**STOCK GOSSIP.**

In our article, "Our Subscription Picture for 1890," a typographical error gave "Honest Tom (8148)," it should read "Honest Tom (1111). This horse is the sire of King of the Castle (3171) the celebrated prize winning Shire stallion, owned by Mr. James Gardhouse, Highfield, Ont. We understand this horse is for sale. It is in the interest of Canadian Shire breeders that this stallion should stay with us, and if sold we hope the purchaser may be a Canadian.

George Weeks, Glanworth, has received through W. S. Hawtshaw, the following Cotswolds, bred by Mr. Russell Swanwick, Clrinchester, Gloucester, England: Bam, sired by a son of the famous Donner, who, at five years old, was sold at 70 guineas. Ewes, sired by Jacob, used by Mr. Swanwick for five years, from which many of Mr. S's prize sheep came. Such as 1st, 2nd, 3rd at Windsor, 1899, with the largest class of Cotswolds shown for years, besides cups and medals. This flock has won over £1,100 in the last five years.

Mr. Samuel Johnston, of Fordwich, Ont., has recently purchased from Mr. Arthur Johnston, of Greenwood, Ont., the young Scotch Shorthorn bull, Vice Admiral, sired by the well-known imported Cruikshank bull, Vice Consul, winner of first prize and diploma at the Toronto Industrial Exhibition in 1888. Vice Admiral's dam was imported Clara, bred by Mr. Sylvester Campbell, of Kennellar, Aberdeenshire, Scotland. It will be thus seen that Vice Admiral combines the blood of the two most famous herds in Scotland.

Mr. Arthur Johnston, of Greenwood, Ont., reports the sale of an exceedingly good young bull of the imported Lancaster tribe to Mr. H. K. Fairbairn, of Theford, Ont. This young bull, though at present only in nice keeping order, Mr. Johnston thinks the making of a hard one to meet in the show ring. Enquiries for good young bulls are coming in somewhat earlier than they did last year. New catalogues for 1890 are now ready, and they will be mailed promptly to any parties wishing to inspect them, business or no business.

**NOTICES.**

The Knabe Pianos which I did not know before, have been chosen for my present concert tour in the United States by my Impresario and accepted by me on the recommendation of my friend, Bechstein, acquainted with their merits.

DR. HANS VON BULOW.

The Canadian Poultry Review, the leading poultry publication of Canada, recently added to itself a kennel department. The patronage extended has encouraged the publisher to issue a special kennel paper, which will be called the Kennel Gazette, and be devoted entirely to the interests of the "doggy" men.

New oats, new wheats, new potatoes, new plants and bulbs, are offered in the 1890 Catalogue of The Steele Bros. Co., Toronto. It is the largest, the handsomest, the most modern, and fullest in matter and illustrations of any we have yet seen. Canadians should be proud of a firm of such enterprise, energy and high standing. They offer the Banner Oats, that yielded 96 bush. per acre in York county; nine new varieties of potatoes; new clovers for the Northwest, &c., &c. The catalogue is priced at 20c., which may be deducted from first order sent in, or they will send 1 lb. of Banner Oats by mail prepaid, or 5 packets of vegetable or flower seeds and catalogue included for a remittance of 25c. It will pay every amateur, gardener, florist and farmer to send for it.

That Canadian farmers are not slow to avail themselves of the most improved appliances in carrying on the operations of the farm is evidenced by the very extensive sale of the Steel Hoosier Drill, manufactured by The Noxon Bros. Manufacturing Co., Ingersoll, the advertisement of which will be found in this issue of the ADVOCATE. Judicious discrimination on the part of a farmer in the selection of implements indicates that he is fully alive to the advantages of procuring such appliances as give the best results in conducting the operations of the farm, and to this is to be ascribed the great popularity of the Hoosier Drill. Its many advantages, as set forth in the advertisement referred to, are well worthy of the attention of intending purchasers of one of these useful and necessary implements.

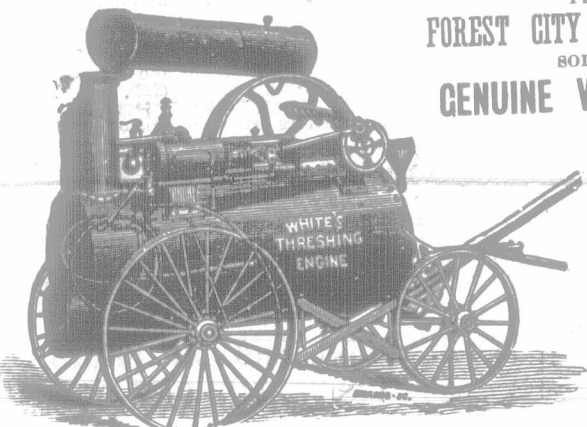
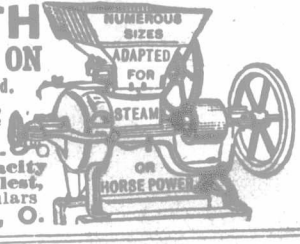
**FRUIT TREES**

and Ornamental; Evergreens, Roses, Shrubs, Grapes, Hardy Plants, Paeonies, Small Fruits, etc. New illustrated and descriptive priced CATALOGUE containing important information for planters. **ELLWANGER & BARRY, FREE** Mount Hope Nurseries, ROCHESTER, N.Y.

Largest and Most Complete Stock in the United States.

**SCIENTIFIC GRINDING MILL**

**THE BEST MILL ON EARTH**  
GRINDS BAR CORN WITH OR WITHOUT SHUCKS ON and all SMALL GRAL. in fact everything which can possibly be utilized for Feed. **SAFETY BOTTOM** and other Practical Devices, to prevent breakage, in case iron should accidentally get into the Mill. **GRINDING PLATES** Reversible, Self-sharpening. Double the capacity of all others. Sold on trial. All Mills fully guaranteed. **Simplest, lightest running, strongest, fastest grinding.** Send for circulars. **THE FOS MANUFACT'G CO. SPRINGFIELD, O.**

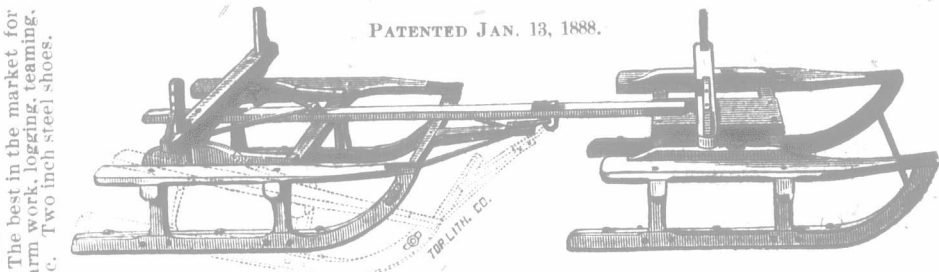


"THE FITTEST SURVIVES."  
**FOREST CITY MACHINE WORKS, LONDON, ONT**  
SOLE MANUFACTURERS OF THE  
**GENUINE WHITE THRESHING ENGINE,**

Special 20-horse power Portable Saw Mill Engine, (same pattern and style), Light and Heavy Traction Engine, and has proved itself to be the most durable. The Engine for the Northwest is made to burn either coal, wood or straw. A thorough warranty given with all Machines and Engines. Call and examine our Machinery, or correspond with us before purchasing elsewhere.

**NEW IRON SEPARATOR.**  
GEO. WHITE, Proprietor and Manager.  
H. B. WHITE, Head Traveller.  
HUB. J. WHITE, Sec.-Treas.  
A. W. WHITE, Asst. Manager.  
F. J. WHITE, Asst.-Sec.

**BAIN WAGON CO'S KNEE-BOB**



**REASONS WHY OUR SLEIGH IS THE BEST IN THE MARKET:**  
Because, with our patent attachment to hind bob, it is the easiest running sleigh made. Because it will go in and out of Pitch-holes without any strain on itself, even when heavily loaded. Because it will go in and out of pitch-holes without the hind bolster sliding back and forth on the box or rack, as it does with the old coupling. Because with our improved coupling it can be backed up the same as a wagon. Because with our swivel in coupling it can be used on the roughest roads without any twist to the reach. Because without any danger of breaking the reach. Because with our improved coupling it can be turned around in its own length. Because it is always in line and will track under all circumstances. Because it cuts off less than any other sleigh made. Because it is well made of the very best wood and iron. Because it has a good length of runner, and faced with a two inch steel shoe. Because all sleigh makers who have seen our coupling say that it is just what was wanted to make the bob-sleigh perfect, and wonder why such a simple and necessary improvement was not thought of before.

**BAIN WAGON CO., Woodstock, Ont.**

**MANITOBA LANDS FOR SALE**  
**BY D. A. ROSS & CO.**

ESTABLISHED 1877.

We have over 1,000,000 acres for sale in the best districts in the Province. 200 improved farms for sale. We are sole agents for the sale of lands of four loan companies, and consequently can give you some cheap farms and easy terms of payment. We have been inspecting lands for loan companies and private individuals for the past twelve years and know every farm within a radius of 50 miles around Winnipeg. Parties buying from us get the benefit of our experience. Send for list of land or any other information. Large blocks of land a specialty. References—British-Canadian Loan Co., Canada Landed Credit Co., Freehold Loan & Savings Co. (Ltd.), Manitoba & North-west Loan Co.

D. A. ROSS & CO., 2 William St., Winnipeg.