

The FARMER'S ADVOCATE

AND HOME MAGAZINE.

FOUNDED 1866.

VOL. XXV.

LONDON, ONT., FEBRUARY, 1890.

Whole No. 290.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

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. It 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.

Terms of Subscription—\$1.00 per year in advance; \$1.25 if in arrears; single copies, 10c. each. New subscriptions can commence with any month.

The Advocate is sent to subscribers until an explicit order is received for its discontinuance, and all payments of arrears are made as required by law.

Remittances should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

Always give the Name of the Post Office to which your paper is sent. Your name cannot be found on our books unless this is done.

Discontinuances—Remember that the publisher must be notified by letter when a subscriber wishes his paper stopped. All arrears must be paid. Returning your paper will not enable us to discontinue it, as we cannot find your name on our books unless your Post Office address is given.

The Law is, that all subscribers to newspapers are held responsible until all arrears are paid, and their paper ordered to be discontinued.

The Date on your Label shows to what time your subscription is paid.

Advertising Rates—Single insertion, 30 cents per line. Contract rates furnished on application.

Address—
THE FARMER'S ADVOCATE,
360 Richmond Street,
LONDON, ONT., 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.

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.

Editorial.

Free Corn.

Sir,—While remitting my subscription for the current year, I wish to bear testimony to the excellence of your journal. Among the many American and Canadian publications I have examined, I can find none which, in my opinion, is so well adapted to the special needs of the Canadian farmer. Your editorial in the January number on free corn, touches a responsive chord in the hearts of, I think I may say all, Eastern Township farmers. Free corn and other feeding stuffs would be a great boon, indeed, to us in this Province. We are beginning to feel keenly the close competition of the great new lands, which are being so rapidly opened up, and stimulated by the direct aid of our government. We have not the soil and climate to grow cheap corn and grain. We can no longer make beef at a profit; 'tis a dead industry here. We are, per force of existing conditions, almost confined to dairying and pork-making; and we need more concentrated food to go with our hay, straw, bran, whey, and skim milk.

There is a movement on foot now which will show the Government what we want in this Province. The directors of the different agricultural societies, in the name of the societies, are memorializing the Government in favor of putting corn, cottonseed meal, etc., and some fertilizers, on the free list. I hope that the institutes and clubs, the press and all who appreciate the fact that upon the prosperity of the farmer largely depends the welfare of all classes, will take up and continue this agitation with "no uncertain sound" until our rulers, feeling that we are in earnest and seeing the justice of our claims, will make the required change. I have reason to think that I but voice the feeling of your many friends in this section in saying that we hope and believe that you will in the future, as you have in the past, continue to push the editorial pen with zeal and intelligence in the interests of your subscribers, and believing that the gain to the farmers of the Dominion from free corn, cottonseed meal, etc., would so greatly overbalance the loss which could only be felt by some very limited sections. We hope to find, from time to time, that the movement has a staunch supporter in the

ADVOCATE. C. W. CURTIS, Warden, Que.

SIR,—In the last issue of the FARMER'S ADVOCATE you wanted the opinion of farmers on the question of "Duties on Corn." I say take it off, and that is the general opinion in this part of the country. If there is not something done for

us farmers soon I do not know what we will do, for they are sending beef here from Chicago cheaper than we can raise it, where we have to pay so high for meal and shorts—we pay from \$25 to \$30 per ton for bran or shorts, and \$3 per barrel for corn meal at present, which is as cheap as it has been for some time.

Enclosed you will find \$1 for the FARMER'S ADVOCATE for another year. I like it better every year, for it really is what it aims to be, a farmer's advocate.

WM. E. ARMSTRONG, Granville Ferry,
Annapolis Co., Nova Scotia.

Dominion Associations Convene.

FRUIT AND DAIRY.

A Dominion Convention of Fruit Growers will be held in the City Hall, Ottawa, on the 19th, 20th and 21st of February, 1890. Prizes are offered for seedling apples and pears, also a large list for the standard varieties of each, as well as for bottled fruit and winter keeping grapes. Manitoba fruits come into the list. Papers will be contributed by delegates and others from Ontario, Quebec, Nova Scotia, New Brunswick, Prince Edward Island, British Columbia, Manitoba and the Northwest Territory. Among the subjects to be discussed will be Transportation of Fruits—Packing and Selecting Fruit for the Home and Foreign Market—Express and Railway Freights—Fungus Disease and Blight—Small Fruits and their Commercial Value—The Commercial Apple Orchards of Ontario, Quebec, Nova Scotia—Relation of Insects to Fruit Culture—Export of Winter Apples—Profits, Drawbacks—Utilizing Surplus Fruit Products: Canning, Evaporating—Injurious Insects Affecting Fruits: Remedies to Prevent Ravages—Profitable Forest Planting—Adaptation of Russian Fruits to Canadian Requirements, etc., etc.

The convention of the

DOMINION DAIRYMEN'S ASSOCIATION will be held at Ottawa on 18th and 19th February. A joint meeting will be held on the evening of Wednesday, the 19th, for the discussion of subjects of interest to both. Special railroad and hotel rates will be obtained for those desirous of attending. A cordial invitation is extended to the associations in the United States to send delegates to this convention.

Samples of new or little known fruits are specially solicited. For fuller particulars write to the Secretary, W. W. Dunlop, P. O. Box 1145, Montreal.

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

Farm Prizes for 1890.

1. Prizes will be awarded by the Agriculture and Arts Association of Ontario for the best managed farms in Group No. 4, comprising the following Electoral Districts, with their various Township Societies, viz:—

(1.) Peel—1. Toronto; 2. Toronto Gore. (2.) Cardwell—3. Adjala; 4. Albion; 5. Caledon; 6. Tecumseh. (3.) York, E.—7. Markham; 8. Scarborough. (4.) York, N.—9. Georgina and N. Gwillimbury; 10. Gwillimbury, E.; 11. King; 12. Whitechurch. (5.) York, W.—13. Vaughan; 14. York. (6.) Simcoe, E.—15. Medonte; 16. Oro; 17. Tiny and Tay. (7.) Simcoe, S.—18. Essa; 19. Gwillimbury W. and Bradford; 20. Innisfil; 21. Tossorontio. (8.) Simcoe, W.—22. Flos; 23. Nottawasaga; 24. Sunnidale; 25. Vespra. (9.) Algoma County only. (10.) Muskoka. (11.) Parry Sound. (12.) Ontario, N.—26. Brock; 27. Mara and Rama; 28. Reach, Scugog and Port Perry; 29. Scott; 30. Thorah; 31. Uxbridge. (13.) Ontario, S.—32. Pickering; 33. Whitby and E. Whitby. (14.) Durham, E.—34. Cavan; 35. Hope; 36. Manvers. (15.) Durham, W.—37. Cartwright; 38. Clarke; 39. Darlington.

2. Any farmer desiring to compete shall make his application in writing to the Secretary of the Agricultural Society of his Township on or before 1st May of each year, upon which said Secretary may call a meeting for the purpose of deciding which of the applicants shall be returned to this Association; but no Township Society shall return more than three competitors.

3. The full name and address of the selected applicants attested by the Secretary and President of the Agricultural Society, to be sent to the Secretary of this Association on or before the 15th May annually.

4. There shall be two judges appointed by this Association, to go together, from outside the District being examined, who shall be paid their actual travelling expenses. In cases of a dispute between the judges, the President of this Association shall be called upon to act as referee.

5. The judges shall keep a detail of marks awarded to each farm visited. They shall award to the best managed farm in each Township Society a bronze medal, where three farms have competed, and instead thereof to the best managed farm in the Electoral Division Society a silver medal, and to the best farm in the whole group a gold medal.

6. In addition to any other points that may be thought desirable by the judges, the following shall be taken into consideration in estimating what is "the best managed farm":—(1.) The competing farm to be not less than one hundred acres, two-thirds of which must be under cultivation. (2.) The nature of the farming, whether mixed, dairy or any other mode, to be the most suitable under conditions affected by local circumstances. (3.) The proper position of the buildings in relation to the whole farm. (4.) The attention paid to the preservation of timber, and shelter by planting of trees. (5.) The condition of any private roads. (6.) The character, sufficiency and condition of fences, and the manner in which the farm is subdivided into fields. (7.) Improvements by removal of obstacles to cultivation, including drainage. (8.) General condition of buildings, including dwelling house, and their adaptability to the wants of the farm and family. (9.) The management, character,

suitability, condition and number of live stock kept. (10.) The number, condition and suitability of implements and machinery. (11.) State of the garden and orchard. (12.) Management of farm yard manure. (13.) The cultivation of crops to embrace manuring, clearing, produce per acre in relation to management, and character of soil and climate. (14.) General order, economy and water supply. (15.) Cost of production and relative profits.

7. The examination by the judges to be not earlier than 25th May, and to be finished in September.

8. The two judges shall decide the Township and Electoral Division prizes by themselves, taking notes of the farm or farms for the gold medal for the group.

9. The report of the judges to be submitted to the Board, and forwarded to the Commissioner of Agriculture.

For further particulars address Mr. Henry Wade, Secretary Agriculture and Arts Association, Toronto.

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, Seaforth; Sec.-Treas., John Avery, Seaforth; 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 Seaforth, 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 were 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.

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.

The Annual Meetings of the Live Stock Associations.

The annual meetings of the Dominion Sheep Breeders' Association and the Canadian Hog Breeders' Association, will be held about the 12th or 13th of March, in Toronto. We hope all these meetings will be well attended. Subjects of more than usual importance are to be discussed, such as better and cheaper railroad accommodation for the shipment of pure-bred stock, the question as to whether breeders desire their stock kept two weeks on any one fair ground, and the selection of judges capable of properly placing awards. Last year the Secretary of the Dominion Sheep Breeders' Association induced Mr. John S. Pearce, London's well-known seedsman, to give a handsome prize, to be competed for by the various breeds of sheep. This year another prize will be presented to the Society, also one to the Hog Breeders' Association. The members of each of these associations, as well as breeders generally, are requested to be present at the annual meeting, in order that all may have a voice as to what these prizes shall be offered for. A number of good papers will be read and discussed at each meeting. Further notice will be given in a future number.

The annual meetings of the following societies will be held at the time and places named below: The Ayrshire Breeders' Association, February 4th, at 1.30 p.m., at Albion Hotel, Toronto; Dominion Shorthorn Herd Book Association, February 5th, at the Shaftsbury Hall, Toronto. This meeting will open at 10 a.m. A number of good papers will be read. The Clydesdale Association of Canada will meet on February 6th, at 1 p.m., at the Albion Hotel, Toronto. The annual spring show of this Association will be held in Toronto, on the 12th or 13th of March, and from present appearance will be one of the best the Society has ever held. We would advise all interested parties to attend it. Although they may have to travel a long distance to do so, they will be amply repaid. Nearly all of the best Clydesdale horses in Canada will be shown here. We think it a great pity that the Shire Horse Society does not unite with the Clydesdale men in holding a joint show, as well as the members of the Canadian Draught Horse Society. Americans and other purchasers come to this show. It is important for the breeders and the country that this show shall be made as large and good as possible. It is time the officers and members of these last named associations awoke and gave their secretary the necessary assistance in these matters. Surely these gentlemen do not desire the Clydesdale men to do all the work of advertising Canadian horses. Heretofore the Clydesdale breeders have done so, and have reaped, as they should, the major part of the benefit, which was their due.

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.

Two Weeks at Toronto—What the Breeders Say.

Dear Sir,—I much regret to see that the Toronto Industrial has decided to keep live stock on exhibition for two weeks at their next show, thereby following, I presume, the suit led by Buffalo and Detroit. This, I think, is a great mistake on the part of the Association, and hope they will reconsider their intention. Had the Directors been at Buffalo and Detroit, and heard the expressions of the exhibitors, they would hesitate before adopting such an unreaonable rule. At the places named, exhibitors did not fail to express themselves, both loudly and deeply, on the injustice of keeping valuable stock so long at one fair, and the general feeling was to let severely aloof shows that demand such unreasonable conditions. Again, it looks as though now the Provincial was considered a thing of the past, the Toronto Board having no competitor of consequence conclude they can dictate to stockmen as they like, and that exhibitors will go there no matter how arbitrary their rules may be. Let all interested attend the different annual meetings of the various live stock organizations and consider this matter. I feel sure the remedy is in their own hands. Let each speak with no uncertain sound, and, if necessary, pledge themselves not to show at any fair where stock must remain on exhibition over a week. The intention is, no doubt, to kill off the smaller shows. A case of boycotting centralization is the order of the day. And I would just say here, "Farmers, stick to the Provincial," see your M. P.'s, and impress upon them that you are opposed to having the Provincial done away with; reorganize it if you wish, but do not abolish. It has done much, and much remains for it to do, especially in this age of montebanks and dancing women. Let us have one purely agricultural show where stock will be the chief attraction, and not be sidetracked for a third-rate circus performance. Let us have a show where we may take our wives and daughters and sons with perfect confidence, well knowing that the chief attraction will be the stock, whether horses, cattle, or sheep, and not some very ordinary dancers very badly dressed on exhibition, that cause many a lady to blush with shame and leave such a questionable attraction.

RICHARD GIBSON, Delaware, Ont.

Dear Sir—Some time ago you wrote me for my views concerning the programme which is talked of for the Toronto exhibitions for next year. I have no doubt but my ideas will coincide with the majority, at least live stock exhibitors. I think to be plain, its quite unnecessary to have stock there more than one week, and would call it a great disadvantage to exhibitors, as well as to other fall fairs.

T. W. EVANS, Yelverton, Ont.

Dear Sir,—If Toronto persists on having the stock for two weeks, it will be an injury to their show instead of a benefit; besides, it looks as though to monopolize so much time. What I think the large fair associations ought to do, is to get more direct transport from one show to the other. There is no getting over the fact that it is the live stock that creates the greater part of the traffic on the railway, and in fact makes the show, and yet the railway officials seem to think that the stockmen are not worth minding. In conclusion, I would advise the large fair associations to get greatly reduced rates on the railway, and more direct transit.

R. McQUEEN, Blythwood, Ont.

Dear Sir,—In answer to your request, I do not approve of the two weeks at the Industrial Exhibition, although I suppose I am as near to Toronto as any one who exhibits stock. I think one week is quite sufficient, for when we get our stock up fit to show we want to attend other fairs as well as Toronto, and if it is going to hinder us doing this, or others must be held too early or too late, I can not fall in with their views on the subject, except they advance the prizes considerably.

R. DORSEY, Burnhamthorpe, Ont.

Dear Sir,—We think it unreasonable to ask the stockmen to exhibit their stock two weeks at Toronto. We think the prizes they offer now are too small in our line for one week's exhibit; and, if they insist next year on two weeks, they will have a very small show. Now that the Provincial is dead, we think that the government should continue the grant of \$10,000 for agriculture, and divide it between London, Hamilton, Toronto, Kingston and Ottawa. This would put all of them on a good footing.

W. H. & C. H. McNISH, Lyn, Ont.

Dear Sir,—In response to your request for an expression of opinion as to the new rule of the Industrial Exhibition, requiring stock to be on exhibition, would say: Undoubtedly, many breeders are now in the habit of debating within themselves, "Should I exhibit at the large exhibitions," or is it going to pay me to suffer all the worry and annoyance and risk for the expected benefit. Now, if such possible exhibitor was in that form of mind, as no doubt many are, I should say the "d-bate," when this rule is read, would soon be decided in the negative, and undecided possible exhibitor would at once decide to stop at home. This rule is certainly not in favor of exhibitors, as one would need to be very sure of a prize to spend two weeks in one place, and don't think the society will derive much "revenue" from it. It is a question that the different live stock associations should discuss and pass upon at their annual meetings, and we have no doubt will be heard from with "no uncertain sound." Don't think there is room for much diversity of opinion from an exhibitor's standpoint, and would undoubtedly prefer spending one week at an eastern show, and another at a western. GEO. RICE.

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.

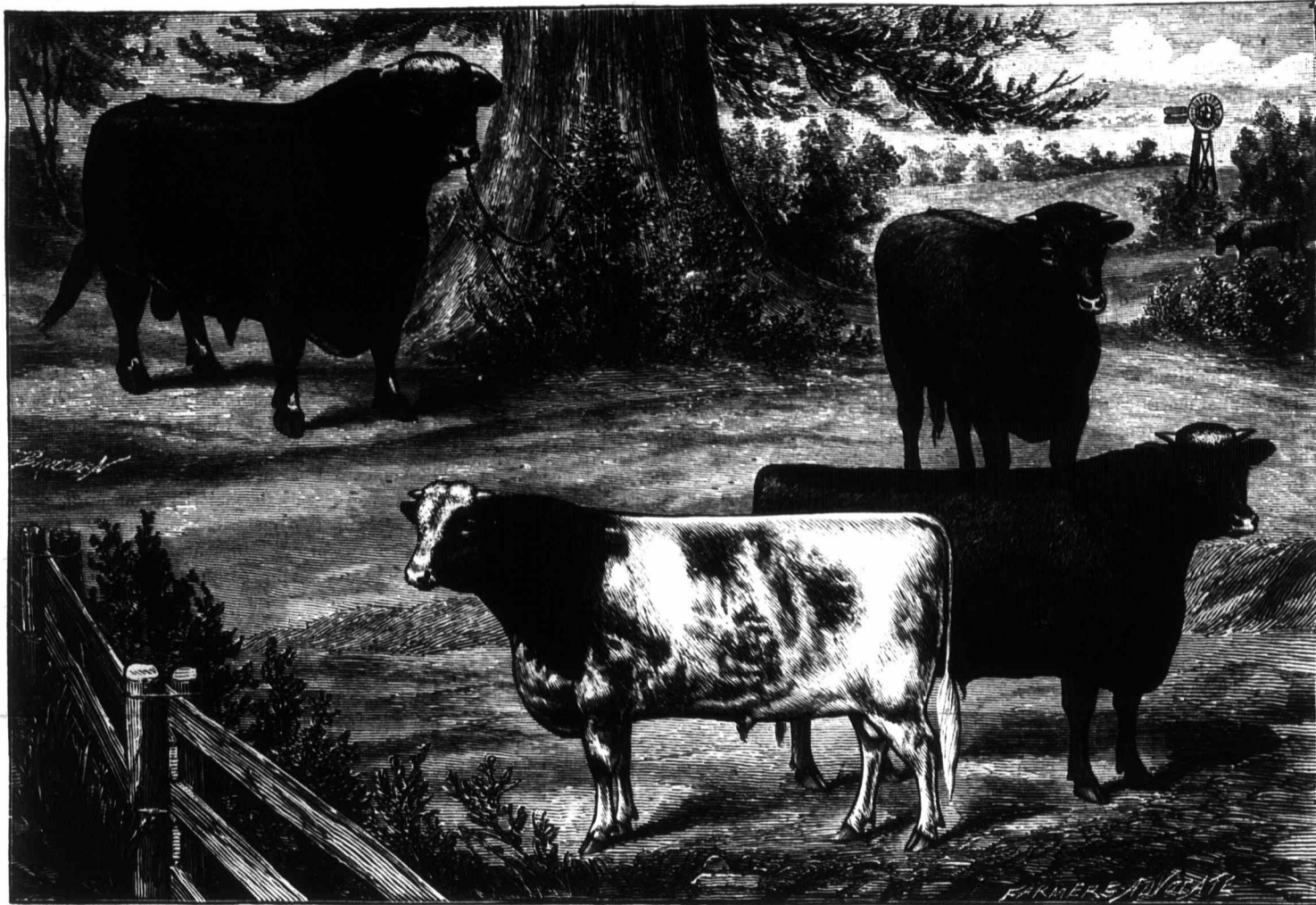
Our artist has been fortunate in presenting the masculine character of this bull, as also his strong back, and immense, level, broad and full hind-quarters. He was bred by that world-renowned stockman of Sittyton, Aberdeenshire, Amos Cruickshank, Esq., and selected by his

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

Clydesdale Horse Association.

A meeting of the directors of the Clydesdale Horse Association of Canada was held on Saturday, Jan. 11th, 1890, at the board-room, Agricultural hall, cor. Queen and Yonge Sts., Toronto. The members present were:—Robert Graham, Claremont; Robert Beith, Bowmanville; David McCrae, Guelph; D. Sorby, Guelph; Robt. Miller, Brougham; and the Secretary, Henry Wade. In the absence of the president and vice-president, Mr. Robert Beith was appointed chairman. A letter was read from Mr. William Rennie, one of the directors, sending in his resignation, on account of his going out of all kinds of business. The secretary was requested to write him, expressing the regret of the association, and trust-



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.

ing that he would reconsider his determination. An application from Mr. James Cherry, of Nobleton, to record his horse Merry Boy (imp.), was read. It was moved by Mr. D. McCrae, and seconded by Mr. D. Sorby, that the secretary be requested to assist Mr. Cherry to record him in the Scotch Clydesdale Book at the expense of Mr. Cherry, also at the same time to record Modern Type. Carried. It was decided to hold the Fourth Annual Spring Stallion Show in the drill-shed, Toronto, on Wednesday, the 12th, or Thursday, the 13th March, next, when large premiums will be offered. It was moved by Mr. Robert Miller, and seconded by D. McCrae, that the annual meeting of the Clydesdale Horse Association be held at the Albion hotel, on Thursday, the 6th February next, at one o'clock p. m. It was decided to print the 4th volume of the Clydesdale Stud Book forthwith, and that Messrs. Sorby, Beith and Graham provide cuts for horses for the frontispiece. Mr. D. McCrae was requested to prepare a paper on Clydesdale horses for the annual meeting.

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 Shropshiredown 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

exercise 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 misleading 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	\$3.00@5.40
February.....	3.00@4.70	3.00@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@4.80
June.....	3.35@4.00	3.85@4.70
July.....	3.15@4.50	3.65@4.55
August.....	2.80@5.00	3.75@5.00
September.....	2.75@4.75	3.80@4.90
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 200@400 lbs. Average.	Light 140@200 lbs. Average.
January.....	\$4.00@5.35	\$4.70@5.40
February.....	4.35@4.90	4.40@5.00
March.....	4.35@5.00	4.40@5.10
April.....	4.40@5.05	4.55@5.05
May.....	4.05@4.75	4.30@4.90
June.....	4.05@4.60	4.30@4.70
July.....	4.30@4.55	4.30@4.90
August.....	3.40@4.40	3.85@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@3.40

SHEEP.

Months.	Extreme Prices.
January.....	\$2.40@6.00
February.....	2.50@5.51
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.....	\$167.50	\$123.00
February.....	167.50	123.00
March.....	170.00	124.00
April.....	168.00	124.00
May.....	167.50	123.00
June.....	167.50	122.00
July.....	167.50	120.00
August.....	167.50	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 213 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 inseparably 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 "sandangleorum" 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.

The Farm.

How Can We Best Manage Our Fall Fairs.

I have read with a great deal of interest the prize essay, "On the Management of Agricultural Fairs," and although your essayist gives excellent advice, I do not think his ways of remedying the evils that have crept into our agricultural exhibitions are practical.

The first way he proposes to raise the finances, when he abolishes horse racing and other attractions that usually help to draw a crowd, is to increase the entry fee. Now I know as an actual fact, if we raised the membership fee in our society, the membership would drop one-half. And as to increasing the exhibits, I think that every exhibitor brings now everything that he thinks is worthy of a prize.

Method No. 2—The expenditure might be greatly reduced by the abolition of horse racing. I grant that the prizes for the races are generally out of proportion to the others, but these prizes are generally contributed by men who are directly interested in the races, that is, they are either going to enter for the race, or have friends that are owners of trotting stallions, and hotel-keepers generally contribute freely also to this class.

I think to abolish horse racing "under certain restrictions" would be an injustice to members of agricultural societies. For instance, we will suppose I am a breeder of roadsters: I go to the exhibition to be benefitted in my particular line; I see a stallion that I would like to use; I see him taken into the ring on a halter, but this does not satisfy me, I want to see if he can trot. If horse racing is to be abolished, what will it benefit me in my particular line to visit the fall exhibitions. Again, further on he says, grain growing receives but little attention at our fairs. I think your essayist is a little wrong in this, if you take nearly any county or township prize list, you will find that as large a prize is given for a bushel of wheat worth one dollar, as for a cow worth from one hundred up to five hundred dollars. Again he says, nothing can be learned by having the grain shown which had just been exhibited, because it was good and had perhaps been hand picked. Now I claim that every farmer who cleans a bushel of grain so as to gain a premium, no matter whether he fans it or picks it, is a benefactor to his country, as it is altogether likely that it will be sown, and we all know that it is better to sow clean wheat than dirty. As to holding a ploughing match at the same time as a show, I think it out of the question. Where are you going to get suitable grounds for a ploughing match in proximity to fair grounds? and how are you going to make it help the finances of the agricultural society. I don't dispute for a moment that ploughing matches are a benefit to farmers, that agricultural societies should manage them, but it is not practical to run one at the same time as a fall show to help the finances of the society. Many other things which your essayist speaks of, such as giving experiences as to benefits derived from artificial manures, and how to get rid of certain pests that farmers have to contend with, I think might properly be left to Farmers' Institutes.

My object in writing the above is to draw someone into the controversy, who will give some practical hints as to the management of fall fairs.

Yours, EXHIBITOR.

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.	1888.	1889.	1888.
England.....	Bshls. 69,490,698	Bshls. 68,159,216	Acres. 2,321,594	Acres. 2,418,674	Bshls. 29.89	Bshls. 28.18
Wales.....	Bshls. 1,672,557	Bshls. 1,641,149	Acres. 63,454	Acres. 76,328	Bshls. 26.43	Bshls. 23.36
Scotland.....	Bshls. 2,183,842	Bshls. 2,139,382	Acres. 59,386	Acres. 68,735	Bshls. 36.94	Bshls. 31.12
Gt. Britain.....	Bshls. 73,347,097	Bshls. 71,939,617	Acres. 2,440,434	Acres. 2,564,737	Bshls. 29.91	Bshls. 28.05

BARLEY.

	Bshls.	Bshls.	Acres.	Acres.	Bshls.	Bshls.
England.....	56,088,627	57,740,453	1,776,011	1,742,338	31.57	33.14
Wales.....	3,548,138	3,110,975	124,051	117,966	28.59	26.59
Scotland.....	7,842,024	7,630,661	222,468	255,357	35.09	33.86
Gt. Britain.....	67,478,799	68,482,089	2,121,530	2,065,661	31.81	31.84

OATS.

	Bshls.	Bshls.	Acres.	Acres.	Bshls.	Bshls.
England.....	63,216,705	64,836,319	1,623,967	1,616,344	42.01	40.11
Wales.....	8,150,208	7,521,038	249,022	250,413	32.73	30.02
Scotland.....	37,182,054	34,986,741	1,015,715	1,015,388	36.61	34.46
Gt. Britain.....	118,548,967	107,344,099	2,888,704	2,882,125	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.....	29.91	28.80	1.11	—
Barley.....	31.81	34.02	—	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 choose 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		Helpers		Cows	
	Two years.	Three years.	Four years.	Four years.	Over four years.	Over four years.
Devon.....	1,062	1,579	1,758	1,452	1,636	—
Hereford.....	1,328	1,790	2,168	1,736	1,808	—
Shorthorns.....	1,489	1,871	2,137	1,620	2,046	—
Sussex.....	1,403	1,844	2,050	1,694	1,888	—
Red Poll.....	—	1,643	2,043	1,494	2,040	—
Black Poll.....	1,462	1,815	2,223	1,667	1,777	—
Welsh.....	—	1,773	2,223	—	—	—
Highland.....	—	1,297	1,356	1,517	—	—
Crossbred.....	1,395	1,822	2,112	1,662	—	—
Kerry.....	—	884	1,166	1,026	958	—

SHEEP.

	Wethers,		Fwes		Lambs	
	12 to 24 months.	over three years.	12 to 24 months.	over three years.	under twelve months.	under twelve months.
Leicester.....	252	230	283	276	144	192
Cotswold.....	317	301	338	308	176	176
Lincoln.....	252	252	266	266	163	163
Romney Marsh.....	244	244	—	—	149	142
Southdown.....	206	206	203	203	133	133
Hampshire.....	259	259	276	276	177	177
Suffolk.....	275	275	276	276	157	157
Shropshire.....	237	237	274	274	177	177
Oxford.....	218	—	—	—	—	—
Cheviot.....	181	—	—	—	—	—
Blackface.....	269	—	279	—	193	—
Dorset.....	271	—	—	—	190	—
Crossbred.....	271	—	—	—	—	—

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, SHELBROOKE, 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 Capleton Pane, and although it is a mere repetition of many similar ones carried on by the most skillful 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.	155 lbs. muriate of potash	206..very good
6.	150 lbs. muriate of potash	272.. "
7.	250 lbs. sulph. of ammonia	164..small
8.	1,000 lbs. "Victor" fertilizer	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., Capleton 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,
Capleton, Que.

Garden and Orchard.

How Best to Secure Uniformity and Fairness in the Awards of Prizes at Fairs.

There are several obstacles to be overcome before this most desirable object may be obtained. Most of the boards of directors of our agricultural societies regard the exhibition of fruit at their exhibitions as a matter of the least importance. Indeed, it is generally tolerated only because public opinion demands it; therefore the preparation of the prize list and the appointment of judges, the two most important matters in connection with this department of their exhibition, receives but little care or intelligent thought from them. "Uniformity and fairness" can scarcely be expected at any exhibition where such views are held.

The prize list for the smaller exhibitions throughout the provinces are all similar in character, almost the only difference being they are made longer or shorter to suit the amount of funds assigned this department by each society. One of these lists is now before me from which I will take a few lines:—"Best assortment of apples, not more than twelve varieties, five of each." But it is not stated whether they are to be summer, autumn or winter varieties. After giving a number of varieties of autumn apples, I find "Any other variety of fall apples," but there is no hint given whether they are required for dessert or culinary purposes. A number of winter varieties are then named, concluding with "any other variety of winter apples," and again there is no indication as to the purpose for which they are required, whether for culinary use or for the home or foreign market. "Uniformity and fairness in the award of prizes" can hardly be expected under such circumstances.

With reference to the appointment of judges in this department the idea generally prevails with boards of directors that anyone can judge which of a half-a-dozen plates of apples of the same variety is the best; and as this is all that is required of judges (as they suppose) they cannot be induced to give the subject further consideration; therefore "any one" is chosen for that purpose. The result of such carelessness in conducting a fruit exhibition becomes fully apparent when the judges have completed their work and the public—the exhibitors and their friends—are admitted to the "show." The public, in the aggregate, are pretty good judges of a fruit show, and they are not backward in giving their opinions freely when gross errors have been made. The blame is invariably placed on the judges, where, no doubt, it often belongs, but not always, for the wording of the prize list is often so ambiguous that the cleverest expert might be nearly as far astray.

A few instances which have come under my own observation will show how uncertain an exhibitor must feel as to his chances for obtaining prizes. Prizes were offered for "Swazie Pomme Grise." Many plates were exhibited purporting to be of that variety, but all, with one exception, were little half developed Golden Russets, which were awarded the 1st, 2nd and 3rd prizes between them. There was one plate, however, of Swazie Pomme Grise on the table and they very good ones, but they were not awarded any prize. Prizes were offered for

"Grimes' Golden." Two plates of that variety were on the table, one of which, an excellent sample, was awarded 3rd prize; the other plate got nothing. The 1st and 2nd prizes were awarded to plates *not* of that variety. At another exhibition the 1st prize for "any other variety of winter" apple was given to a plate of Alexanders, and the 2nd to a well kept plate of Duchess of Oldenburg. There is much difference of opinion respecting the "season" of this variety. The judges in this case, who were three in number, declared it to be a winter variety. Perhaps they were right. The list also called for "dessert apples for winter use." There could be no mistaking the wording of the prize list in this case. On the tables there was a very good display of winter apples competing for these prizes—Golden Russets, Kings, Westfield, Seek-no-further, Wagoner, Northern Spy, Grimes' Golden and others. Several of these may fairly be claimed as dessert apples, but the three prizes were awarded 1st to Alexander, 2nd to Pumpkin Sweet, 3rd to Colvert. Evidently the judges thought that if the largest apples on the tables were not the best "dessert apples for winter use" it was not their fault.

On another occasion a sort of sweepstake prize was offered for the "best plate of winter apples on the tables." Knowing this special prize was offered I had some curiosity to know to what variety they had awarded this prize, and was surprised to find it given to a plate of Talman Sweets, especially so as there were many excellent varieties of winter apples on the table, notably some of the finest specimens of Golden Russets I had ever seen at any exhibition. Having an opportunity subsequently I asked one of the judges why they had selected the "Talman" as the best winter apple on the table. His reply was, "Because we believed the Talman Sweet to be the best apples grown in this or in any other country." That answer was quite satisfactory, of course.

At one exhibition where a prize of \$10 was offered for the "best collection of apples, correctly named, five of each variety, and not less than sixteen varieties," it was awarded to an exhibit consisting of some twenty or twenty-five varieties, and all named, viz., names were attached to each variety. There were not more than ten tolerable specimens in this lot, and only four of these correctly named. More than one-half of the lot were nondescript seedlings, without sufficient merit to be allowed a place in any sensible man's orchard. One of the three or four lots competing, contained sixteen varieties, and all, with one or two possible exceptions, correctly named. The varieties were good, and the samples well grown. The judges evidently awarded the prize to the lot having the largest number of names attached, without regard to any other consideration. Can "uniformity and fairness in the award of prizes" be expected under such management?

But there can be no improvement in this respect, as long as the present system of appointing three judges to act together in each division lasts. This system is bad in every respect. The judging of fruits at exhibitions require the best horticultural skill that can be obtained. The idea which guides the Board of Directors seems to be, that by appointing three persons, each having a very little knowledge of the subject, the concentrated wisdom of the three is more than equal to that which may be obtained from

one expert. But, experience shows this is not the case. The judgment of the best of the three is often cancelled by the ignorance of the other two; and it frequently occurs that the most ignorant one of the three, who generally has the stronger will, gets everything his own way. When some gross error is quietly pointed out to one of the judges, the reply is, almost invariably, "Oh, I knew it was wrong, and would have had it otherwise; but, you know, I was only one of three, and the others were against me." If either of the other two be spoken to, the reply will be substantially the same. This system is unjust to exhibitors, to visitors, and to all others concerned, and must be swept out of existence. Let the directorate appoint only one judge in each class or division, and hold that one responsible for his work. Fewer mistakes will then be made, and these more easily corrected.

The issuing of an intelligible prize list, and the appointment of one expert judge, only, in each class, will go far towards securing "fairness" at our exhibitions. But "uniformity" may not be secured until the judges can be supplied with some uniform standard of quality for all purposes, for all our fruits, wherever they may be grown, without regard to soil or situation; and I would urge, in the strongest terms, that this Association do at once cause to be prepared a catalogue of all such fruits as are generally grown in this province, and that it be so prepared that all the varieties, and of every kind, are compared each with the other, for all the purposes for which such fruits may be grown. It will require much labor to prepare such a catalogue, but the labor and time required should be no obstacle to prevent the work being thoroughly done. This Association is largely subsidized by the Ontario Government for the purpose of giving all possible assistance to the public in fruit culture. The public, therefore, have a right and do claim such a catalogue at the hands of this Association, and I have no hesitation in stating, from inquiries frequently made of me at exhibitions, that no other work, which the Fruit Growers' Association of Ontario can perform, will be so acceptable to the tens of thousands of fruit exhibitors throughout the province, as the preparation of such a catalogue; for then, obtaining prizes at exhibitions will no longer be regarded as a lottery; and exhibitors will soon learn that "uniformity and fairness in the awards of prizes" at our exhibitions has been secured.

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.

Maple Syrup and Sugar-Making.

BY G. C. GASTON.

Among the many luxuries which the farmer may enjoy, none is more generally appreciated, especially by the young people, than the products of the sugar maple. Who that has lived from childhood on a farm has not some recollections of the old times in the sugar bush? The advent of spring was hailed with delight in joyful anticipation of the good things to come. When the maples were ready to tap, then the troughs were got ready, the kettles were moved to the camp, a supply of fuel cut, new spiles made, and the old woods that had remained silent and sad for months in the grasp of winter, now sang with the sound of the axe and the tapping gouge, and the shouts and innocent laughter of the boys, who always regarded the sugar-making as one of the most enjoyable seasons of the year; then followed the boiling and the sugaring off, when all enjoyed a feed of taffy. And here I may say that those who never visited a sugar camp, or was never present at a sugaring off, or taffy party, have missed a most enjoyable treat. I often think that when discussing the subject of forestry at meetings, and in the press, that the sugar maple does not get its full share of credit. I regard it as the most useful tree we have. As a timber tree it makes beautiful furniture, which takes a fine, smooth finish, and the bird's-eye grain is hard to equal; and its tensile strength makes it valuable for axles of waggons and heavy trucks. Then, as a shade tree, it is the surest, the hardiest and most beautiful of our native deciduous trees, and it makes the best fuel of any of our forest trees. And last, but certainly not least, the syrup and sugar it yields are not equalled in quality by any other saccharine product in the world. And now I will give a few hints on the manufacture of syrup and sugar that, I hope, may prove interesting to the readers of this journal. Like every other branch of farming industry, great improvements have been made in the methods used: The first makers of maple sugar were the Indians, who, for want of kettles, boiled the sap in vessels of birch bark by heating stones and plunging them while red hot into the sap. This was a primitive and very tedious process. Kettles came into use with the advent of the white man, and of course the product was improved. But the old methods of the whites are now superseded by new and better ones. Instead of making a great unsightly gash in the tree with an axe, and then driving in a gouge and a long spile, we use a bit only nine-sixteenths in diameter, bore a hole about an inch deep and drive in a patent spile; the spiles are of metal, about four inches long, with a small opening in the centre where they enter the tree to let out the sap, which runs down a groove and into the bucket; very little of the spile comes into contact with the wood of the tree, as there is left about a quarter of an inch of the bark, and there is a shoulder on the spile, which only allows it to penetrate about half an inch. Around the shoulder, and close to the tree, is a wire hook on which to hang the bucket. The advantages of the new method are that the trees are not injured; the incisions being protected from the sun and weather do not dry up so quickly, and, taking the season through, produces more sap than was obtained by the old way—besides, every drop is saved; while, by the old way, there was always a great amount of leakage.

The wounds made by tapping are so small that

they heal quickly, and a plantation of maples would last a life-time. The tin buckets have superseded the old clumsy troughs, which were always a source of trouble and waste. The cost of tin buckets is about twelve to thirteen cents each, and the patent spiles about one and a quarter to one and a-half cents each. Instead of the old-fashioned kettle, we use an evaporator, fourteen feet long, twenty-two inches wide, and four inches deep, made of galvanized iron; it is attached to an outside frame of wood two inches by four inches, and the upper edges of the pan are nailed to the wood with clout nails. This is set on a furnace with just about a quarter of an-inch lap on each side, so as to expose the whole of the bottom to the heat, and the sides are plastered closely in with mortar so as to make the furnace tight and keep the fire from the wood frame on the upper edge of the pan. The pan is divided into thirteen squares by partitions across it, with holes through each partition at opposite corners, so as to give the sap a zig-zag course, and a spout is placed at the back end to let off the syrup. After boiling about an hour, the syrup begins to get strong at the back end, as there is a constant stream of sap running into the front end; and, it being arranged that the cold sap enters where the fire is the hottest, then, when the syrup is strong enough to draw off the tap at the back is opened, and a tiny stream of syrup, about as thick as a straw, runs into a vessel placed there for the purpose; while a stream of sap, as thick as a pipe stem, runs in at the front, and this process is kept up all day, or as long as the supply of sap lasts. The syrup is left to settle for a while, and deposits a woody sediment, which, for want of a better name, we call "coombe"; it is then strained and put into a kettle on a small fire to finish up. A small quantity of milk, or the whites of eggs, is put in to cleanse it, which forms a scum as soon as it starts to boil, which is taken off, and thus removes anything that the strainer fails to take out. After removing the scum, a few minutes boiling brings it to the proper thickness to keep well, and then it is taken off and allowed to cool before putting into kegs; and, if properly done, you have an article equal to the nectar of the gods. If you wish to make sugar, boil it till it will crack when put on snow, like rock candy. Some experience and skill are required to finish it into sugar, for if you boil it a minute too long, or take it off a minute too soon, you will spoil it. We have made 150 lbs. of sugar and 10 gallons of syrup in a day, with a pan such as I have described. It has a capacity of boiling the sap from 500 trees, and costs about \$12. For a small number of trees, a much smaller one would answer. About five feet back from the front of the fire, the space between the bottom of the pan and the bottom of the furnace should be only about five or six inches, until it reaches too near the back end, and then it should gradually widen out until it is twelve inches deep where it reaches the smoke-stack. There should be about two feet between the end of the pan and the smoke-stack. This arrangement of the space is to insure a good draught, and the stack should be about ten feet long and twelve inches in diameter. The pan should sit perfectly level on the furnace; and to ensure fast work, the sap should not be more than an inch deep on the bottom of the pan, but great care must be taken to keep the bottom all covered. It only takes a third of the fuel to evaporate the sap in this way that it took to treat it in the old way with kettles.

I think that, on every farm where the sugar maple will grow, a grove of them should be left

for making syrup, and where there is none, one should be planted. In twenty years they will be large enough to tap, perhaps in less time if they grow well. I know of a grove of second growth maples that has grown up with the present generation, and that are from ten to fourteen inches thick, and are tapped every year, and yield a great quantity of sap. It is the most beautiful spot on the farm; and, besides being useful for syrup-making, it is a boon to picnic parties in the summer, who delight in its grateful shade.

Let those who have no bush on their farms plant a grove of maples, they will be useful to succeeding generations if not to the one who plants them. Let us plant trees around our farms, along our roads, around our school grounds, everywhere where they will be ornamental and useful. And what tree more suitable than the maple? The leaf of which is our national emblem.

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 out-going 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. G. 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 treasures 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 (*Phanerogarus*) and flowerless (*Cryptogarus*)—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 blackknot 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 $\frac{1}{1000}$ 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 500,000 square miles, which nearly equalled its total distribution for 1886, 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 aphid, 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 composition as it oozes out, and so on till all 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 twopence 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.

Poultry.

The Exhibition of the Dunnville Poultry and Pet Stock Show.

This association held its annual show at Dunnville, Ont., December 3rd, 4th and 5th. And, as many of our readers in the various provinces have asked us to publish such prize list, we append the following. There were about 1,100 birds and 50 dogs on exhibition. Mr. S. Butterfield, of Windsor, Ont., was judge on poultry, and D.O'Shea, London, Ont., was judge on dogs. We are sorry more of the eastern breeders were not present; but those wishing to buy birds will find their advertisements in other columns.

PRIZE LIST.

Light Brahmas, old—1st. C. H. Akerley, Tonawanda, N. Y.; 2nd, P. H. Hamilton, of Hamilton, Ont. Chicks—C. H. Akerley, A. Drake, Byng. Breeding pen—C. H. Akerley, J. B. Clarke, Dunnville. Dark Brahmas, old—Wm. McNeill, London, Ont. J. H. Houser, Canboro', Ont. Chicks—Wm. McNeill, Breeding pen—2nd, O'Brien & Colwell, Paris, Ont. Buff Cochins, old—O'Brien & Colwell, C. H. Akerley, Chicks—George G. McCormick, London, Ont. C. H. Akerley, Breeding pen—Geo. G. McCormick, John Mehlenbacher, Byng, Partidge Cochins, old—Wm. McNeill, A. G. H. Luxton, Chicks—Wm. McNeill, 1st and 2nd. Breeding pen—A. G. H. Luxton, Hamilton, White Cochins, old—Wm. McNeill, London, O'Brien & Colwell, Chicks—Wm. McNeill, Breeding pen—Wm. McNeill, O'Brien & Colwell, Black Cochins, old—Wm. McNeill, Chicks—Wm. McNeill, 1st and 2nd. Breeding pen—Wm. McNeill, Langshans, old—Wm. McNeill, C. J. Eisele, Guelph. Chicks—Wm. McNeill, C. J. Eisele, Guelph. Chicks—Wm. McNeill, C. J. Eisele, Breeding pen—Wm. McNeill, A. G. H. Luxton, White Dorkings, old—Burn & Moffatt, Wm. Mawhinney, Silver-grey Dorkings—Wm. Mawhinney, Burn & Moffatt, Chicks—Burn & Moffatt, Plymouth Rocks, old—James B. Clarke, O'Brien & Colwell, Chicks—J. B. Clarke, 1st and 2nd. Breeding pen—J. B. Clarke, 1st and 2nd. Plymouth Rocks, white old—H. H. Wallace, Woodstock, H. Bender, Chicks—H. Bender, H. H. Wallace, Breeding pen—H. Bender, S. M. Clemo, Silver Wyandottes, Chicks—Wm. McNeill, White Wyandottes, old—George G. McCormick, Chicks—George G. McCormick, H. H. Wallace, Breeding pen—George G. McCormick, R. J. Gracey, Golden Wyandottes, old—Chicks—2nd, James B. Clarke, Breeding pen—James Clemo, W. F. Black Spanish, old—Burn & Moffatt, Chicks—Burn & Moffatt, 1st and 2nd. Breeding pen—A. G. H. Luxton, S. C. White Leghorns, old—F. Wixon, Ingersoll, Cochrane & Cameron, Galt, Chicks—R. H. Marshall, 1st and 2nd. Breeding pen—R. H. Marshall, F. Wixon, S. C. brown Leghorns, old—John Pletsch, C. H. McCrae, Chicks—Arthur Stevens, J. J. Bowden, Breeding pen—S. Haney, C. H. McCrae, R. C. white Leghorns, old—Mrs. W. C. G. Peter, 1st and 2nd. Chicks—Burn & Moffatt, Peter, 1st and 2nd. R. C. brown Leghorns, old—R. J. Gracey, Chicks—R. J. Gracey, Breeding pen—R. J. Gracey, 2nd. Black Leghorns, old—Chicks—John Pletsch, 1st and 2nd. Breeding pen—F. Wixon, John Pletsch, Black Minorcas, old—2nd, George G. McCormick, Chicks—George G. McCormick, O. G. Kalbfleisch, Breeding pen—C. H. McCrae, George G. McCormick, White Minorcas—Chicks—Wm. McNeill, Breeding pen—Wm. McNeill Black-red Game, old—Burn & Moffatt, O. A. Sheehan, Chicks—O. A. Sheehan, Burn & Moffatt, Brown-red Pit Game, old—Harry Bowden, John A. Cooley, Chicks—James Haney & Son, 1st and 2nd. Breeding pen—David Lyons, Duckwing Game, old—O'Brien & Colwell, 1st and 2nd. Chicks—Burn & Moffatt, Pyle Game, old—Burn & Moffatt, Chicks—Burn & Moffatt, O'Brien & Colwell, Black Javas, old—A. G. H. Luxton, Chicks—Robert Cameron, Homer, Ont., A. G. H. Luxton, Golden Spangled Hamburgs, old—Wm. McNeill, Chicks—Wm. McNeill, Breeding pen—Wm. McNeill, S. S. Hamburgs—Wm. McNeill, Chicks—Wm. McNeill, Burn & Moffatt, G. P. Hamburgs, old—Wm. McNeill, Burn & Moffatt, Chicks—Wm. McNeill, Burn & Moffatt, Breeding pen—Wm. McNeill, S. P. Hamburgs, old—Wm. McNeill, Chicks—Wm. McNeill, Breeding pen—Wm. McNeill, Black Hamburgs, old—Wm. McNeill, Burn & Moffatt, Chicks—Wm. McNeill, Breeding pen—Wm. McNeill, C. H. Houdans, old—James Haney & Son, O'Brien & Colwell, Chicks—Wm. McNeill, Burn & Moffatt, W. C. black Polands, old—Wm. McNeill, Burn & Moffatt, Chicks—Wm. McNeill, Burn & Moffatt, Breeding pen—Wm. McNeill, Golden Polands, old—Wm. McNeill, Burn & Moffatt, Chicks—O'Brien & Colwell, Burn & Moffatt, Breeding pen—Wm. McNeill, Silver Polands, old—Wm. McNeill, Burn & Moffatt, Chicks—Wm. McNeill, White Polands, old—2nd, Burn & Moffatt, White Poland, bearded, old—Wm. McNeill, Chicks—Wm. McNeill, Polands, A. O. V., old—Wm. McNeill, Burn & Moffatt, Breeding pen—Wm. McNeill, B. K. G. Bantams, old—Burn & Moffatt, O'Brien & Colwell, Chicks—Mrs. W. C. G. Peter, nd. Brown-red Game Bantams, old—Robert Cameron, Duckwing Game Bantams, old—Burn & Moffatt, Chicks—O'Brien & Colwell, 1st and 2nd. Pyle Game Bantams, old—Burn & Moffatt, Chicks—Burn & Moffatt, Robert Cameron, Golden Sebright Bantams, old—Wm. McNeill, 1st and 2nd. Chicks—2nd, Wm. McNeill, Breeding pen—Wm. McNeill, Silver Sebright Bantams, old—Wm. McNeill, Burn & Moffatt, Chicks—Wm. McNeill, 1st and 2nd. Breeding pen—Wm. McNeill, White

Bantams, old—Robert Cameron, Pekin Bantams, old—Wm. McNeill, Burn & Moffatt, Chicks—Wm. McNeill, O. A. Sheehan, Breeding pen—Wm. McNeill, J. B. Clarke, Japanese Bantams, old—Wm. McNeill, 1st and 2nd. Chicks—Wm. McNeill, 1st and 2nd. Breeding pen—Wm. McNeill, African Bantams, old—Wm. McNeill, 1st and 2nd. Chicks—Wm. McNeill, Breeding pen—Wm. McNeill. Bronze turkeys—Matthew Culleton, Frank Lawe. White turkeys—Matthew Culleton, 1st and 2nd. Turkeys, A. O. V.—H. N. & S. Vanderburgh. Embden Geese—O'Brien & Colwell, Henry Marshall, Geese, A. O. V.—O'Brien & Colwell, J. H. Houser. Aylesbury ducks—H. H. Wallace, Rouen ducks—H. H. Wallace, 1st and 2nd. Pekin ducks—H. H. Wallace, 1st and 2nd. Cayuga ducks—A. G. H. Luxton, 1st and 2nd. Carrier pigeons—Robert Cameron, 1st and 2nd. Antwerp—Robert Cameron, A. G. H. Luxton. Pouter—Robert Cameron, A. G. H. Luxton. Barb—Robert Cameron, Long-faced Tumbler—Robert Cameron. Fan-tail—Robert Cameron, 1st and 2nd. Jacobin—Robert Cameron, Turbet—Robert Cameron, A. G. H. Luxton. Owl—Robert Cameron, A. G. H. Luxton. Nun—Robert Cameron, A. G. H. Luxton, Trumpeter—Robert Cameron, Magpie—Robert Cameron. Pea-fowl—J. H. Houser, 1st and 2nd. For best cage canaries—S. M. Clemo, Frank Foreman, Canary singer—O. G. Kalbfleisch, S. W. Hornbrook, sr. Largest exhibit of poultry—Wm. McNeill, London; Burn & Moffatt, Tilsonburg, Congdon & Marshall's special—John Gillap, Dunnville, Exhibitor coming longest distance—R. B. Patterson's special—rs. W. C. G. Peter, Angus, Ont. N. Lockie's special—Stephen Haney, Dunnville, James Riston's special—Charles Akerley, Tonawanda, John Nichol's special—Harry Bowden, Hamilton, Gazette's special—Charles Akerley, Tonawanda, C. H. McCrae's special—Burn & Moffatt, Tilsonburg, Reform Press special—Robert Cameron, Homer, Ont. James B. Clarke's special—Charles Akerley, Tonawanda, James B. Clarke's special—S. M. Clemo, Dunnville, S. M. Clemo's special—Jas. B. Clarke, Dunnville, J. H. Smith's special—A. L. Poole, Hamilton, J. A. McIndoe's special—C. H. A. Lees, Port Dover, George T. Wood's special—Robert Marshall, Dunnville, A. Stevens' special—Matthew Culleton, Dunnville, George T. Wood's special—Wm. McNeill, London, R. H. Marshall's special—C. H. McCrae, Dunnville, J. C. Feeles' special—C. H. McCrae, Dunnville, F. R. Lalor's special—D. T. Rogers, Cayuga, O. G. Kalbfleisch's special—R. H. Marshall, Dunnville, L. Werner's special—Wm. McNeill, London, D. J. Jewhurst's special—O. G. Kalbfleisch, Dunnville.

Commercial.

ADVOCATE OFFICE, Jan. 24th, 1890.

WHEAT.

EUROPEAN WHEAT OPINIONS.

In writing on December 27th, J. E. Beerbohm said in his London List in regard to wheat—"There is very little fresh to be said in regard to the position of the trade; the increase in the quantity floated naturally tends to check buyers, but although last week the imports into the United Kingdom were very liberal, there is no prospect of any pressure for the next two or three months, although the quantities in sight may be gradually swelled by shipments from distant countries like California and Australia. A healthy trade during the winter remains in fact still in prospect, but on the basis of supply and demand there is no reason to expect, as some appear to do, any sharp advance in values. Stocks in first hands in the United Kingdom will probably close the year at the figure of 2,250,000 quarters, against 2,570,000 quarters last year, whilst the total visible supply in the United States is rather larger than last year. Stocks on the seaboard in South Russia are probably one and a half million quarters less than at the close of 1888; but against this must be put the larger crop in Australia. Altogether, it may be repeated there is no evidence of a pressure of supplies in the first half of 1890, but rather of a well-balanced sufficiency. The Continental demand will probably play the principal part in controlling values in the near future."

In a communication to the Liverpool Corn Trade News of December 30, a grain firm of that city said:

The shortage in the crops in Russia, India, and Danube districts, the utter exhaustion of reserves all the world over, the low prices of wheat—in itself a powerful argument—brought about an improvement of about 6d per cental, then the reports of good Australian prospects, and the depth of the market in an apathetic mood, many even leaning to the expectation of lower prices later on. Indeed, the fact of Californian for May delivery, selling at 7s 2d against 7s 4d for December delivery, shows how little the situation is appreciated.

After 1886 Russia was swept of wheat, there having been two short crops in succession. As the three crops, 1884, 1885 and 1886, produced a total of 74,905,000 quarters, of which 23,822,000 were exported, it may be inferred that the remaining 51,083,000 quarters were absorbed by home consumption, ergo, that the annual consumption in Russia is about 17,000,000 quarters. On this basis the following seems self-evident:

Table with 2 columns: Item, Value. Rows include Quarters, Consumption 3 years, Surplus for export and stock, Exported 1887, 1888.

Left for export and stock, If stocks reduced to

Table with 2 columns: Item, Value. Rows include For export, Against (in 1888), (in 1887).

We have taken home consumption in Russia at no more than 17,000,000 quarters, while it is probably much larger now than in 1884-86. The fear of large stocks in Russia will, therefore, prove a delusion, and may be in a much more glaring manner than we have above sketched out.

EXPORTS OF WHEAT AND CORN.

The following shows the exports of wheat and corn, including wheat in flour, from all American ports and Montreal, from Sept. 1, 1889, to Dec. 23, 1889, for the years named:

Table with 4 columns: Year, Wheat, bu., Corn, bu., Total. Rows for 1889, 1888, 1887-8, 1886-7, 1885-6, 1884-5, 1883-4, 1882-3.

LIVE STOCK.

The British cattle markets experienced a temporary advance recently, and our special cables to-day quote qualifying the good news, however, the above statement, but adding the cheering news that prospects on the whole are fair. Prime steers at Liverpool lately brought 13s, good to choice 12 3/4, poor to medium 11 1/2, and inferior and bulls 10c.

At Montreal we quote the following as being fair average values:—Good butchers' 3 1/2 @ 3/4, medium 3 @ 3/4, culls 2 1/2 @ 3/4 per lb. live weight. There were a considerably larger number of sheep and lambs offered during last week than in the preceding one, but the demand continued steady and active, and all were taken at unchanged values, bringing 3 1/2 @ 3/4 according to quality and condition. Live hogs were in light supply and the fair demand which existed for them strengthened the market somewhat, they finally selling at about \$4.80 for the best quality, with an easy feeling at that figure, with the ruling price about \$4.75. Calves continued scarce and met with a fair demand, selling at \$5 @ 5 1/2 according to size and condition.

WOOL.

SUPPLY IN THE UNITED STATES.

According to a Boston publication the detailed and classified reports from the markets and the growers show a total supply of wool on dealers' hands of 70,000,000 pounds domestic and 15,000,000 pounds foreign, against 50,000,000 pounds domestic and 17,000,000 pounds foreign in 1888. The New York and Philadelphia stocks are less than last year, but Boston shows an increase of 11,000,000 pounds of domestic wool, and most of the smaller markets follow the lead of the chief wool market of the country. The imports of clothing wool coming from abroad show a decline of nearly 75 per cent.

CLOVER SEED.

The clover seed market rules very quiet and not much change in values. The crop in some parts of Ontario is said to be good while in others it is light and deficient. Farmers are complaining about the price being so low, but those who have to buy will not regret this. The crop in the United States is large, and while there has been considerable export the stocks keep about the same at all the principal centers. Many farmers and others are at a loss to understand what is the cause of such low prices. There are two causes which have been working gradually to this end for years. One is the increased acreage all over the United States, even west of the Mississippi River. Seed has been sent into Chicago and St. Louis in large quantities this season. Seed has come from sections that formerly imported more seed than they are now sending out to other markets. Another factor is the greatly improved machinery in the shape of hullers that are now in use and that now take out 5 1/2 and even 8 bushels per acre when 3 @ 5 bushels was the usual yield 5 to 7 years ago.

BUTTER.

If such a thing were possible, the market is quieter than ever, and business is of the purest jobbing character. Strictly fancy creamery is not plenty, and held at steady prices, but it is the only grade in the list to which the remark can be applied with certainty, as on all others quotations are nominal. We hear to-day of some business in creamery, a good sized parcel, it is understood, but the terms were kept private. It was for export and the figure is understood to have been pretty near our outside price. Outside of this, we came across nothing.

MONTREAL MARKET.

Table with 3 columns: Item, Price, Unit. Rows include Creamery, late made, Townships, choice, Townships, medium to good, Morrisburg, Brockville, Western, good, Western, medium.

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 imbroglis, 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 encoined 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 Melly Lepell.'

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

"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 unclassable. 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 our 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 foibles, of merits, and mannerisms, and manners, and—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 "crotche"; 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 and unrest were gone; forecast, if it intruded, was put aside. It was as Sir Henry Wotton has 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, "middle 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 interests 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, was there not a 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 pleasures 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 could. Had she any interest in this man who 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 Château 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. Ethel ridge 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 to 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 Toison d'Or."

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

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

"Why not?" asked Everest carelessly. "Because he is worth a small fortune and might get hurt; because he has never done this rough kind of work; because—"

"If you'll give me stable room, Kerneval," said Everest, listening no further. "I think I'll try him." "Of course you can have stable room," said Kerneval, "but it's the wildest scheme I've ever known. You might as well make a hunter of him at once."

"I'll tell you one thing," said Etheridge abruptly. "If Tolson d'Or is in, the rest of us might as well draw out. There's nothing here that comes near him in breeding."

"Except Charon," interrupted Wrexford. "Except Charon," continued Etheridge, "but no one would think of entering Charon for the 'Point to Point' unless he was as wild as the horse himself."

"I saw him out to-day," said Wrexford. "They were jumping him without a rider in the track between the fences, where you train your hunters. I never saw finer action."

"No one," said Etheridge, "ever said anything against his form or action, but his temper." "I think they don't understand him in the stables," responded Wrexford. "A horse feels an affront as quickly as a man."

"Why don't you show us what the great uncomprehended is?" asked Everest, with just that little something in his tone that had startled Wrexford's blood before,—that quite effectual something that fixed a resolution that had hung a little doubtful for a day or two.

"With proper treatment a great deal could be made of him," said Wrexford, disregarding the question. "Archib," he continued, turning to Kerneval, "if you don't mind, I'd like to try him some day."

"Certainly," answered Kerneval. "I always enjoy your society, and a broken leg would keep you here a month."

The next morning, and long before host or any other of the guests was up, the astonished grooms saw Wrexford appear in the stable-yard. Curly-comb, brush, and chaffing stopped at once. Every hat was touched as Wrexford walked along, for he was a favorite there,—something not so easy to be attained with the democracy of the stables, where social distinction is really but little to the capricious critics, and where everything is tested with reference to the one overbearing, supreme interest of "horse." Wrexford walked straight up to Carney, who, straw in mouth, stood in the open door of the carriage-house, throwing now and then an eye over his subordinates at their work.

"Carney," said Wrexford, "Mr. Kerneval told me I could try Charon. Will you have him saddled?" The head groom gazed at Wrexford in amazement.

"Is it Charon you want, sir?" he said, thinking what he should say. "There's no one been on him for a month, and he's as rank as if he'd been turned out for the time—and temper."

"I know all about it," interrupted Wrexford, "but have him out! I want to see how he goes." "If it's an appetite for your breakfast you want, Mr. Wrexford," continued Carney, "you'll be likely to get it, or else you'll not need the breakfast at all. Still, if it's your wish,—Sandy," he shouted, "bring out Charon."

The suspended work of the men was not resumed. They all stood still, waiting with the greatest interest.

Docile for a moment, Charon is led into the yard, with his perfect grooming, in color all over like the breast of a blackbird. But, once there,—the horse knows that something unusual is intended,—passivity ends. It requires three men to saddle him. Attempt to mount is a rotary performance of minutes, suddenly brought to a close, however, as with one vigorous bound Wrexford is upon the horse's back. For an instant, in which Wrexford has caught the stirrups, Charon seems puzzled. He stands rigidly still. Then with one great quivering bound he seeks to unseat his rider. Again he stands still, as if amazed at his failure, and then,—the whole personnel of the stable watching with interest strained to excitement; for all know that a fall on the hard earth and small scattered stones of the court may mean even death,—the struggle really begins. The horse rears until it seems that he must go over. He springs into the air with raised back and almost serpentine motion; and then with a vigorous kick, he starts off at full speed dead on to the yard gate,—a five-board affair with cross bars, that has not yet been opened for the day. In three bounds he reaches it. The grooms run forward, for danger seems now more than imminent. Charon "takes off" at least a yard sooner than is necessary; rises high—higher—in the leap, and is over. The astonished grooms see him flash down the road, Wrexford urging him to almost racing speed.

A murmur that is almost a cheer rises as the horse and rider disappear.

This was the first of several more affairs of the kind, known only at the stables and to Kerneval. But in these others the camaraderie of horse and man was established, and mutual respect sprang up between the two gentlemen. Both enjoyed their mornings hugely, and as Wrexford rode, in restive walk or quick trot, the past was but a darkening fog, the future but a glimmering mist; and he thought only of the present—and of Kitty.

Miss Marling felt that Wrexford was "different." Now when, within the tender, shadowed depths of her feminine consciousness, a girl feels—and recognizes that she feels—that a man—a young man—is "different," she had best beware; she has taken the first step toward that mysterious differentiation that is called love. Wrexford's talk was often large-

ly—and always in its sub-strain—unlike that of others; and his exceptional career, even as far as she knew it, afforded her opportunity for dangerous imaginings. Not that he had ever talked of what he had seen or done,—try as she would, she could not make him do that, and her failure in this often piqued her; but now and then an allusion or a phrase, impossible except to one of peculiar experience,—the thought of which has its power and its charm,—vivid or deepened in tone, or sharpened in point, what he said. Originally tempered with knowledge of the world, and given something of form by such observance of its usages as does not wholly efface the aspects of personality, a personality that deals with the formalities of life with an easy, mastering hand, seemingly careless, but really no more careless than any perfect skill,—always had a certain fascination for a young girl. And in the wonderfully attractive handicraft—craft of the body and the tongue—that all this implies, Kitty Marling knew, if she did not recognize it, that Wrexford had been journeyman many a day—was master-workman now. She expected him to say unusual things, perhaps even rather daring things; but with him she always felt that instinctive certainty of absolute security that is so much. What he said she knew would never be either ungraceful or unmanageable. Much of what he said she often found herself recalling when alone. She recognized—for she had a habit of self-arrangement and a summary way of dealing with herself—that she listened more attentively to this stranger than to any even with whom she had danced and dined through her whole season. They met for minutes, half-hours,—more, perhaps. They say to each other the thousand—and yet an added thousand—things a young man and a young woman find—do not find, for they come to them eager to be said—to say to each other. To the unilluminated, much that they said might have seemed the very jargon of nonsense; but it was often freighted with meaning more to them than is borne by the maxim of the sage or the apothegm of the cynic. Any phrase may be a revelation, any word a warning. Nothing in such case is so trivial that it can be forgotten, nothing so slight that it is not worthy to be gathered to the garner of self-communing. These are as thistles down that may bear—as it is itself wind-borne humped from which may come the cable that sounds an ocean,—the seed that in another product may be the cause of ecstasy or madness. They said many things to each other, apparently without the least connection with the quick-growing interest that was drawing them toward each other, and which moved along the line of advance to the great end. Their talk was completely—even if unconsciously—"blind," offering one meaning to one unenlightened hearer, and another to themselves. Even for themselves there was always necessity for correcting something that had been said; and they hardly ever parted without soon finding that there was immediate and imperative need that they should meet, to right some mortal commission, to repair some fatal omission. They found enough to say to each other, indeed, for this boy and girl (let us use the simple words for this simple time, and not man and woman,—names burdened with associations of toil and trouble and care and experience). In the strange artlessness of the time that apprehends and yet apprehends not, they did not see the path along which their footsteps were gathering speed.

"Love comes unseen, we only see it go."

Into their absorption there obtruded no self-questioning consideration; theirs was the whole and complete self-consciousness so intense that it is oblivious of all around. With flying feet they were nearing the goal which, reached, is often greater surprise to both the winners than to any who have watched them from the start and "round Tattenham corner" and to the close.

"Well," said Mrs. Kerneval, as she and Kerneval sat alone upon the veranda, watching the paling rays of the setting sun, after the others had departed to dress for dinner, "you see it's just as I told you it would be."

Kerneval looked a little confused, and did not answer for a moment.

"But I don't see," he said.

"They are just rushing into each other's arms."

"I don't see any such rush. They're civil to each other, of course."

"Is she 'civil,' as you call it, to Everest?"

"She is with him more than she is with Wrexford."

"Bobby Chatto says that is just what is the matter. She is hopelessly, dispiritingly polite to Everest, and that is all."

"You women!" said Kerneval comprehensively.

"There aren't two of you who are rational once a week. You're always deploring that there isn't any romance in the world; but if a little bit of it comes in your way, every one of you just puts a foot on it as you do on a spark that's jumped the fender. Now, you're a fairly soft-hearted woman—"

"Thank you."

"You know you are, and here you are doing all you can to marry nice, rich, little Kitty Marling to a man,—a kind of piebald circus horse, curious to look at, all show and no go. A duller man I don't know. Romance! and you trying your best to keep Kitty from Wrexford, who's a sort of nineteenth-century Sidney."

"Matrimony isn't romance," said Mrs. Kerneval sententiously.

"Oh!" exclaimed Kerneval.

"Don't be sarcastic."

"Why remind me of what you had made me forget?" he replied gallantly.

"You know what I mean. Nothing could possibly be nicer than Kitty and Mr. Wrexford—theoretically. But who knows whether he is sincere? Now Everest is a rich man himself—"

"You imply that Wrexford is mercenary, and that's an outrage."

"You concede that there's something going on, and that's sensible."

"Not a bit of it. I am sure Kitty will marry your Everest. Give the girl her head—and her heart, for a while. You can trust her,—you can trust any of them. I never knew a modern girl do an impulsive thing before marriage. Kitty'd shy as quick as any of them if she saw any moonshine streak of romance lying across her road. She'll—She'd run away."

"I'm sure I haven't done anything to help Mr. Everest in the least," said Mrs. Kerneval, "not a thing."

Kerneval turned and gazed at her in all the blankness of a man's incapacity for the incomprehensible.

The haze in which Wrexford had hitherto lost himself broke one night; and as one drifting down a fog-laden river, who does not know that he is drifting even, sees, through some break, the substantial shore, he saw, and saw suddenly and in surprise, how fast and how far he had been carried by the current to which he had abandoned himself.

It was in this wise: The windows in Wrexford's room looked down upon one of the graveled walks that ran around the house. The evening was warm, the moon was bright, and, lighting a clear and throwing up the sash, Wrexford leaned out. He had been lost in mingled fancies, so different from recognized and formulated thought, for perhaps half an hour, when he heard the rattle of the pebbles on the path, and the noise of advancing footsteps. In a moment he recognized the voices of Everest and Dakayne. Tempted, evidently, by the beauty of the night, they had sought a final cigar in the open air. He did not look at them, did not think of them, as they came along. He was about to speak to them, for they were almost directly beneath the window, when two words in Everest's cold, precise tone seemed to detach themselves from what else was said, to strike him, awakening him as one might be awakened by a blow:

"Fortune-hunter."

He straightened himself up, and for a moment stood blankly still, and then threw himself into his chair.

It was a brutal awakening. Since the evening when Kerneval had told him that Miss Marling was an heiress, he had not thought of it until this instant; he had forgotten it as completely as, in her presence, he forgot all else except herself. And now the thought was brought to him, and by one whom instinct taught him was his rival, but whom perception had not as yet detected. If Wrexford was anything, he was a proud man. The thought that these men,—that even Everest—might think him fit to be branded with such words, was intolerable. But she was a great heiress, and he,—as in pride's perversity he had often called himself, in the strength of his real personal self, without real thought of the meaning of the words,—he was a " penniless beggar." There stood the two designations worlds apart.

The world changes, and yet does not change; the old changes for the new very much the same. The limitations and conventions of the past have changed, but the substance remains. The barrier of birth may be lowered, but hardly, save, perhaps, now more than before, to him whose acts are his lineage, whose deeds have made him what he is.

But there is another barrier for lovers to beat against, and it rises higher with each year. It is of gold, and it has been and is built up in such obscurity, with such rites, but such necromancy, that it can not be scaled save upon ladders the rounds of which are also of that metal.

What the general world might think or say, he did not much care. The world thinks its cynicism clever, its depreciations bright. But it was with himself that he now found he had to deal, for in the quick revelation of his awakening, the idea of marriage first came to him, first took form, and yet without causing surprise. Indeed, it seemed to him that he had thought of it for a long time; and that he must think of it no longer was very bitter. The world, he thought, had decided that for a poor man to marry a rich woman was contemptible; and was not the world, he asked himself, in its rough way, right? What had he to offer her, this beautiful, gentle, sweet-hearted, bright-souled girl, blessed with all that fortune has at hand or can gather? Himself—his event-worn, circumstance-hardened self—only himself, and nothing more? It were an obolus for an Orient. He must give up his long-cherished hope—never recognized until within a hundred seconds. He never could tell the truth, the great truth, that he felt he had so long intended to tell her, and which he did not know himself until after Everest and Dakayne had lit the very cigars that he could see winking in the shadow of a tree under which they had found seats. It would be wiser if he should not see Miss Marling, not speak to her again,—that he should go away. And then a surge of regret that he must leave this glad, careless life swept over him,—that he must leave Kerneval and the rest,—and Charon. It was his duty to leave the place, but it was hard, hard once more to wear

"his sandal-shoon and scallop-shell."

But when must he go? Perhaps it would be rude to go immediately. Might he not stay until the "Point to Point" was run? He heard Everest's laugh in the near distance. He might stay and scarcely say a word to her,—that, certainly, would do no harm. He would think it over carefully,—sleep on it. But from that moment he did not give the idea of hastening his departure a thought, and he slept upon quite different ideas.

And such are the strengths of strong men!

(To be continued.)

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 filloselle. 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.

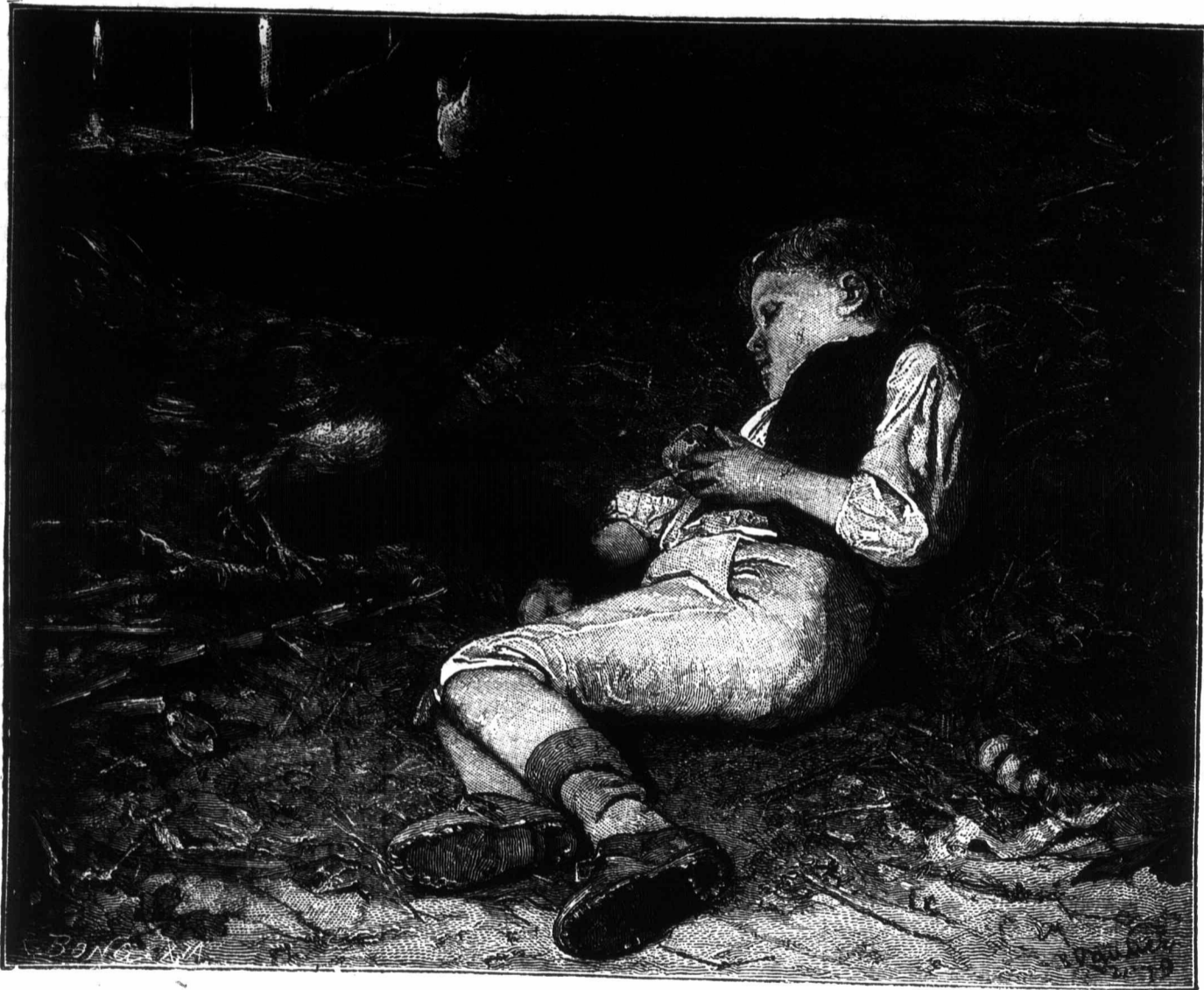
KATE ROBERTSON.

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. Its 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."

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 as 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 kyao isvd
Zvfl ohyza pz nshk av ohcl pz zy
Aolu isvd pa lhza vy isvd pz diza
Ael dpuk aoha isvdz aoha dpuk pz liza.

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. HOWKINS.

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,
Charades, 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 9, 19, 5, 14, 2, is harsh.
My 8, 7, 1, 4, 10, 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 sea,
In the SREAMSIPS 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 BELLOWS 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—Diogenes.
L I M I T E R 6—Forgeta.
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 Howkins, Lucy Cunningham, Willie N. Redner, Clara Rilance, E. E. Riesberry, Morley T. Boss, Tora McCon-b, 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.

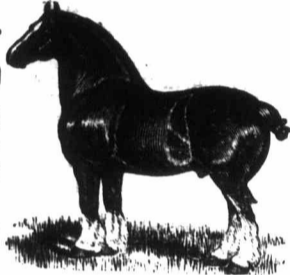
AUCTION SALE

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

THOS. COLQUHOUN,
PROPRIETOR,
MITCHELL, ONT.
289-b



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.

Ontario Veterinary College

TEMPERANCE STREET, TORONTO.
The most successful Veterinary Institution in America. All experienced Teachers. Session 1887-8 begins Oct. 21st. Apply to the principal, PROF. SMITH, V. S., Edin. TORONTO, CANADA. 273-v

W. & F. P. CURRIE & CO.

100 Grey Nun St., Montreal,
MANUFACTURERS OF

SOFA, CHAIR AND BED SPRINGS.
A LARGE STOCK ALWAYS ON HAND.

IMPORTERS OF
DRAIN PIPES, Vent Linings, Flue Covers, Fire Bricks, Fire Clay, Portland Cement, Roman Cement, Water Lime, Plaster of Paris, Borax, Whiting, China Clay, etc. 277-y

GRATEFUL-COMFORTING
EPPS'S COCOA
BREAKFAST.

"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—Civil Service Gazette.

Made simply with boiling water or milk. Sold only in packages by Grocers, labelled thus:
JAMES EPPS & CO., Homeopathic Chemists,
290-y-0 London, England.

SEEDS GARDEN, FLOWER & FIELD.

POTATOES, FRUIT TREES, PLANTS and VINES, all the best kinds. THE NEW CURRIANT "Cransbill" a fruit specialty. Send at once for our Free Catalogue. It is a Novelty in these days of bombast and exaggeration, that all want, as it gives Accurate Descriptions and Fair Prices for the best goods. Send address now to FRANK FORD & SON, Ravenna, Ohio.

SEEDS

RENNIE'S ILLUSTRATED GUIDE FOR AMATEUR GARDENERS FOR 1890 Will be mailed free to all intending purchasers upon application. The list of Vegetable, Flower and Agricultural Seeds is complete, and includes every Novelty of merit. Send for it before ordering a supply of Seeds.

WM. RENNIE, TORONTO.

1850 - 1890
Bruce's SEEDS

Genuine Garden AND Field Seeds
Our Descriptive and Priced Catalogue for spring trade is now ready, and will be mailed free to all applicants, and to customers of last year without solicitation. Market Gardeners will find it to their advantage to sow our Seeds.

JOHN A. BRUCE & Co.
Hamilton, Ont.
290-b-OM

CONCORD and NIAGARA GRAPE VINES.

\$1 and \$2 per 100, respectively, for choice Marlboro and Golden Queen Raspberry Plants. Send to the undersigned for a Free Catalogue and Price List of Plants, Trees and Vines (Fruit and Ornamental). All the leading varieties, new and old, guaranteed true to name and of quality represented, or money refunded. Save money and buy direct from the grower, who has a reputation at stake, and is responsible.

E. D. SMITH,
HELDERLEIGH FARMS NURSERY,
290-d-0 WINONA, ONTARIO.



GOLDEN Giant Side Oat
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 yield freely, and are a very large yielding variety. Price, per lb., 2c. 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

John S. Pearce & Co.,
SEEDSMEN,
LONDON, - ONTARIO

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. 290-a-OM

DON'T place your **FRUIT TREES,**

orders for **FRUIT TREES,** Ornaments, **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

A. G. HULL, CENTRAL NURSERY,
290-d St. Catharines, Ont.

BONE FERTILIZERS!



Quick in Their Action.
Lasting in Their Results,
TRADE MARK.
Grimsby, Jan. 8, 1890.
Gentlemen,—I have used your fertilizer on different crops with the best results, as follows: Grapes were harvested earlier, were better bunched, and larger berries than where none was used. Black Currants—The berries were fully twice the size where it was used, and much larger yield. Peach Trees—Tried it on stunted trees that I was about pulling out, with extraordinary results, as they started growing, and nearly caught up to the thrifty ones. Raspberries—Much larger berries and better loaded. Potatoes—Used a tablespoonful to the hill, producing a very large yield of fine, smooth, big potatoes. Previous to using your fertilizer, they were always scabby, and were this year where your fertilizer was not used. I am happy to place my order for one ton for this year's use. I feel I cannot speak highly enough of your fertilizer.
(Signed) CHAS. C. DECEW.
Send for Catalogue.
DOMINION FERTILIZER AND CASING WORKS,
255 & 257 James-St. North, HAMILTON, ONT.
Please mention FARMER'S ADVOCATE. 285-f

THE GLORY OF MAN STRENGTH VITALITY!

How Lost! How Regained,
THE SCIENCE OF LIFE

KNOW THYSELF.
THE SCIENCE OF LIFE
A Scientific and Standard Popular Medical Treatise on the Errors of Youth, Premature Decline, Nervous and Physical Debility, Impurities of the Blood.

EXHAUSTED VITALITY AND THE UNTOLD MISERIES

Resulting from Folly, Vice, Ignorance, Excesses or Overtaxation, Enervating and unfitting the victim for Work, Business, the Married or Social Relation. Avoid unskillful pretenders. Possess this great work. It contains 300 pages, royal 8vo. Beautiful binding, embossed, full gilt. Price only \$1.00 by mail, postpaid, concealed in plain wrapper. Illustrative Prospectus Free, if you apply now. The distinguished author, Wm. H. Parker, M. D., received the GOLD AND JEWELLED MEDAL from the National Medical Association for this PRIZE ESSAY ON NERVOUS and PHYSICAL DEBILITY. Dr. Parker and a corps of Assistant Physicians may be consulted, confidentially, by mail or in person, at the office of THE PEABODY MEDICAL INSTITUTE, No. 4 Bulfinch St., Boston, Mass., to whom all orders for books or letters for advice should be directed as above.

ADVERTISE IN THE ADVOCATE.

ON 30 DAYS' TRIAL.

THIS NEW ELASTIC TRUSS... Has a Pad different from all others, is cup shape, with Self-adjusting Ball in center, adapts itself to all positions of the body, while the ball fits the cup, presses back the Intestines just as a person does with the finger. With light pressure the Hernia is held securely day and night, and a radical cure certain. It is easy, durable and cheap. Sent by mail. Circulars free. HOLLAND TRUSS CO., Chicago, Ill.

WEBSTER'S Unabridged Dictionary.

A DICTIONARY, 118,000 Words, 3000 Engravings, a GAZETTEER OF THE WORLD, of 25,000 Titles, and a BIOGRAPHICAL DICTIONARY, of nearly 10,000 Noted Persons, ALL IN ONE BOOK. Contains 3000 more Words and nearly 2000 more Illustrations than any other American Dictionary. Should be in every school in the Dominion.—Canada Educational Monthly, Toronto. Best Dictionary of the language.—London Times. G. & C. MERRIAM & CO., Publishers, Springfield, Mass., U. S. A.

HALLADAY STANDARD WINDMILLS

For supplying constantly pure and fresh water for the following purposes, viz.:— Pumping Water For Stock, Farm Buildings, Mansions, Villa Residences, Public Institutions, Gardens, Green Houses, Town & Village Water-works. Hotels, Colleges, Pumping for Railway Stations, Fire Protection, Irrigation, Tanneries, Breweries, Sewage, Mines, Draining, Low Lands. Geared Mills for chaff cutting, root pulping, threshing, sawing wood, grinding corn, etc., etc. Catalogue and Price Lists with references mailed free on application to

ONTARIO PUMP CO'Y, TORONTO, ONTARIO. 279-y

50 CENTS Watch for \$4.98

This watch has fine expansion balance, quick train (18,000 beats per hour), accurately regulated and adjusted, full upper plate, dust proof, full jeweled, Waltham style movement, warranted an accurate time-keeper. The case is a genuine 4 oz. Dauber Silver, warranted by the manufacturer a life time. In order to get good Agents immediately to introduce our watches and jewelry we make ground offers good for 60 days. Cut this advertisement out and send to us with 50 cts. in postage stamps, as a guarantee of good faith, and we will send you the watch by express C.O.D. subject to examination. You can examine and test the watch and if found perfectly satisfactory and exactly as represented you can pay the express agent the balance, \$4.48, and take the watch—otherwise you do not pay one cent. If you wish the watch sent by mail, cash in full must accompany order. SPECIAL—order immediately, sending \$4.98 in full with order, and if yours is the first order from that town we will give you the exclusive agency of your county and send you free in addition to the watch a valuable sample outfit of jewelry consisting of rings, chains, pins, charms, etc., etc. CANADIAN WATCH & JEWELRY CO., 69 & 71 Adelaide St. E., Toronto, Ont.

Business College Bulletin.

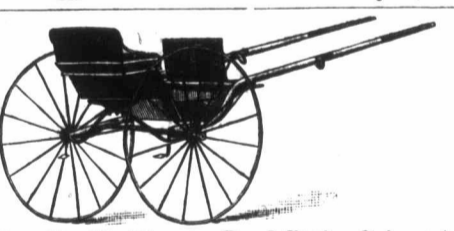
VOL. I. ST. CATHARINES, ONT. No. 1.

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. The College is entering on its fifth year with the largest attendance it has ever had, and with a wonderfully improved course of business training, that has been used and found to be perfect during the last year. It unquestionably has the most thorough system of any business college in the Dominion. Its students are more successful in obtaining positions than those of any other business college. Three students from other business colleges have, during the past year, taken a second course here, and gone direct from this college to good positions. The Shorthand Department is unequalled. Students become fast writers, and have such a thorough training in office work that they secure the best positions by their own merit. No young man or young woman who wishes to secure the best there is among the leading commercial colleges should fail to send to the St. Catharines' College for full information. The rates are reasonable, and board only \$2.50 per week in private families in the city. W. H. ANGER, B. A., President.

286-y

HOME STUDY—Thorough and practical instruction given by MAIL in Book-keeping, Business Forms, Arithmetic, Penmanship, Shorthand, etc. Low rates. Distance no objection. Circulars free. BRYANT & STRATTON'S COLLEGE, 419 Main-St., Buffalo, N. Y. 287-y

BRITISH AMERICAN ARCADE YONGE ST. TORONTO Business College The oldest and most reliable of its kind in the Dominion. All subjects pertaining to a business education thoroughly taught by able and experienced teachers. C. O'DEA, Secretary.



Buy the St. Thomas Road Cart. It is neat, durable, and easy riding; made of the best of material, and warranted for one year. Write for prices, terms, etc. BROWNELL & FRILE, St. Thomas, Ontario. 286-f

THE BEST SEEDS are those put up by D. M. FERRY & CO. Who are the largest Seedsmen in the world. D. M. FERRY & Co's Illustrated, Descriptive and Priced SEED ANNUAL for 1890 will be mailed FREE to all applicants, and to last season's customers. It is better than ever. Every person using Garden, Flower or Field Seeds should send for it. Address D. M. FERRY & CO. WINDSOR, ONT.

IMPROVED EXCELSIOR INCUBATOR Simple, Perfect and Self-Regulating. Hundreds of successful operations. Guaranteed to hatch larger percentage of fertile eggs at less cost than any other hatcher. Send for Circulars. 66 for Illinois Cata. GEO. H. STARK, Quincy, Ill.

\$1,500.00 WORTH OF STOCK, IMPLEMENTS, ETC GIVEN AWAY!

For Procuring New Subscribers to the FARMER'S ADVOCATE.

CONDITIONS: 1st. Cash must accompany all lists of names. 2nd. In all cases to secure these prizes the names sent in must be new subscribers. Renewals will not count. 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.

STOCK. For 200 new names we will give an imported Shetland pony mare, of extra quality, now four years old, imported by John Miller, Brougham, Ont. For 150 new names we will give a Hereford Bull (fit for service), valued at \$150, bred by R. J. Mackie, Oshawa. For 150 new names, a Shorthorn Bull (fit for service), bred by James Graham, Port Perry, Ont. For 150 new names, an Avshire Bull (fit for service), bred by Thomas Guy, Oshawa, Ont. A Heifer of any of the above breeds will be given for from 100 to 150 names, according to quality of animal. For 30 new names, a Shropshire Ram or Ewe Lamb, bred by John Miller & Sons, Brougham, Ont., or Jno. Dryden, M. P. P., Brooklyn, Ont. For 30 new names we will give a Cotswold Ram or Ewe Lamb, bred by Joseph Ward, Marsh Hill, Ont., or David Birrell, Greenwood, Ont. For 20 new names will give a Leicester Ram or Ewe Lamb, bred by Jeffrey Bros., Whitby, Ont. For 40 new names we will give a Berkshire Sow or Boar 6 months old, bred by J. C. Snell, Edmonton, or J. G. Snell & Bro., Edmonton, Ont., or by Wm. Linton, Aurora, Ont. For 10 new names we will give a pair, or for 5 a single bird, of any of the following breeds: Light Brahmas, Dark Brahmas, Langshans, Black Red Games, any variety of Leghorns, Wyandottes, Dorkings, Spanish, Bantams, Ducks, etc. Eggs will be given as prizes when desired from the yards of Wm. Hodgson, Brooklyn, Ont. 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.

IMPLEMENTS, ETC. For 110 new names a Bain Farm Truck, value \$75, manufactured by Bain Wagon Co., Woodstock, Ont. For 65 new names a Patent Iron Frame Section Spring Tooth Cultivator, value \$30, manufactured by J. O. Wisner & Son, Brantford. For 110 new names we will give a first class wagon, value \$75, manufactured by the Chatham Manufacturing Co., Chatham, Ont. For 75 new names we will give one of the celebrated Westward Ho Sulky Plows, value \$40, manufactured by Copp Bros., Hamilton, Ont. For 125 new names we will give one of Halliday's Standard Wind Mills, value \$75, manufactured by the Ontario Pump Co., Toronto, Ont. For 140 new names we will give a Hay Loader, value \$75, manufactured by Matthew Wilson & Co., Hamilton, Ont. For 100 new names we will give a large Straw Cutter with Carriers attached, value \$65, manufactured by B. Bell & Son, St. George, Ont. For 40 new names we will give a large Agricultural Furnace, value \$52, made by the Gowdy Manufacturing Co., Guelph. For 65 new names we will give a new Fanning Mill, value \$35, manufactured by Manson Campbell, Chatham, Ont. For 90 new names we will give one of Osborne & Co.'s large Stock Scales, value \$50, capacity 4,000 lbs., manufactured by Osborne & Co., Hamilton, Ont. For 40 new names we will give a Winchester Repeating Rifle or a Breech-loading English Shot Gun of latest design and good quality, or 10 new names we will send an imported Breech-loading German rifle. For 40 new names we will give the Model Harness, valued at \$30, manufactured by the Farmers' Supply Co., 176 King St. East, Toronto. All stock or goods shipped free on board the cars. For additional premiums see cover.


STOCK FOR SALE.

FOR SALE.
DURHAM BULL CALF,
 Nine months old, with registered pedigree.
 289-b **JAMES FARIS, Sr.,** Bradford P. O., Ont.

FOR SALE,
CRUICKSHANK -:- BULL
 Imported Excelsior (51233) -2693-. Apply to
W. J. BIGGINS,
 ELMHURST FARM,
 Clinton, Ont.
 289-b

BROCKHOLME STOCK FARM.
Holstein-Friesian Cattle.
 Netherland Romulus, a grandson of Netherland Prince and Albino the Second, heads the head.
 Young stock for sale.
R. S. STEVENSON, Proprietor,
 ANCASTER P. O., ONT.
 286-f

SHROPSHIRE -:- SHEEP.

This flock has won numerous prizes in England for the last twenty years, besides America, France and Africa. Has been established over seventy years. Several of the best flocks in England started from this flock thirty years back. Sheep always for sale.

F. BACH & SON,
 Onibury, Shropshire,
 ENGLAND.
 289-y

Imported Clydesdale Stallions and Mares for Sale.

Each stallion guaranteed a breeder. Prize-winners and the get of prize-winners compose our shipments. Grand style, clean legs, sound feet, together with fine action and perfect constitution are characteristics found in every one of our horses. Intending purchasers should see our stock. Terms made very easy. Visitors always welcome. Catalogue on application.

DUNDAS & GRANDY,
 SPRINGVILLE P. O.,
 Cavanville Station and telegraph office C. P. R.
 286-y

COLDSTREAM STOCK FARM, WHITBY, ONTARIO.

We have on hand and for sale a superior lot of imported and home bred Clydesdale Stallions and mares. Several of them were prize winners at the leading shows in Scotland and Canada. Also a few choice Shetlands. Prices to suit the times.

 Address, **JEFFREY BROS.,** Whitby, Ont
 279-y

LA COMPAGNIE DU HARAS NATIONAL


30 St. James St., Montreal, Canada.
 Stable, Outremont near Montreal. Medavy breeding and sale farm, Perche, France. **SPLendid PERCHERONS** (stallions and mares), French Coach Horses (Normans), all with first-class pedigrees. Our connections in France enable us to import cheaper than any one else. For terms of sale and for our catalogue apply to the office.
HON. L. BEAUBIEN, President, Montreal, Canada.
BARON E. DE MANDAT GRANCEY, Vice-President,
 5 Av. Friedland, Paris, France.
R. AUZIAS-TURENNE, Manager.
 289-y


BOW PARK HERD

—OF—
PURE-BRED SHORTHORNS.

We have on hand Eighteen Young Bulls, fit for service, that we offer at reasonable prices and easy terms. They are good individuals, and well bred.
 ADDRESS—

JOHN HOPE, Manager,
 Bow Park, Brantford, Ont.
 290-y


R. D. FOLEY,
Rosedale Stock Farm
MANITOU, MAN.
 BREEDER AND IMPORTER OF
CLYDESDALES AND SHORTHORNS.
 Young animals, males and females, imported and Canadian bred, always on hand for sale. Visitors welcome. Satisfaction guaranteed as to price and quality.
 284-y

JOHN S. ROBSON,
Thorndale Stock Farm,
 MANITOU, MAN.
 Breeder and Importer of Clydesdales and Shorthorns.
 Young animals for sale. Satisfaction guaranteed.
 285-y

PRIZE PERCHERONS FOR SALE.


One black stallion, two years old; one bay mare, three years old; one steel grey, one year old.
 Address
D. E. ADAMS,
 OXFORD CENTRE, ONT.
 286-f

GREAT CLEARING SALE OF THE CELEBRATED BREEZE LAWN STOCK FARM HERD OF SHORTHORN CATTLE, SOUTHDOWN SHEEP AND BERKSHIRE HOGS.

Owing to a change in business, we now offer sale all our prize-winning Shorthorns, Southdowns and Berkshires, and their produce at our farm, at Souris (Plum Creek), Man. Sale to commence from this date, and to continue until all our stock are sold. This is a splendid opportunity of securing show stock, as all must be sold. Catalogues now ready, for which apply to
SHARMAN & SHARMAN,
 SOURIS (PLUM CREEK), MAN.
 284-y

NOW READY FOR SALE

SEVEN CHOICE
YOUNG BULLS

Of the most approved Scotch breeding, all out of imported cows, and mostly sired by the imp. Secret bull, A. SUSSEX (56625), bred by A. Cruickshank, Sittytou, Scotland. Also a few young cows and heifers. Catalogues on application.


JOHN DRYDEN,
 BROOKLIN, ONT.
 289-ff

HILLHURST HERDS

ABERDEEN, ANGUS, HEREFORD,

—AND—
A. J. C. C. JERSEY CATTLE.

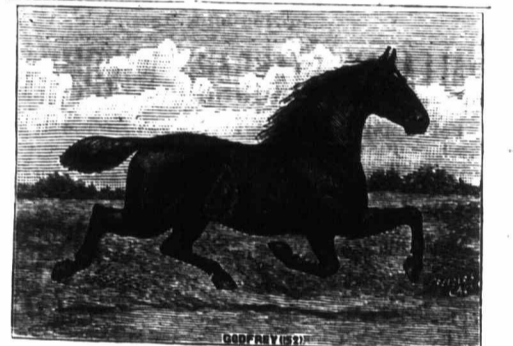
Choice Young Bulls and Heifers of the above breeds for sale at moderate prices at all times. A few fine, young Hereford Bulls, by Cassio, at low prices if taken at once.

M. H. COCHRANE,
 HILLHURST P. O., Compton Co., Q.
 275-y

ARTHUR JOHNSTON, Greenwood, Ont.

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.
 New Catalogues for 1890, will be ready by January 20, 1890. Send for one.

My motto is, "No business no harm."
 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.
 289-ff

**FRENCH COACH HORSES. Carriage Horses.**

Large, Stylish, Standard-Bred American
 Choice quality. Terms reasonable. Correspondence solicited. Mention this paper.
A. O. FOX, WOODSIDE FARM,
 OREGON, WISCONSIN, U.S.A. — 288-f


300 PERCHERONS, 100 FRENCH COACHERS

Comprising my importations for 1889, are now on exhibition at
ELLWOOD'S RANCH,
 DeKalb, Illinois.

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**; shown at 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.

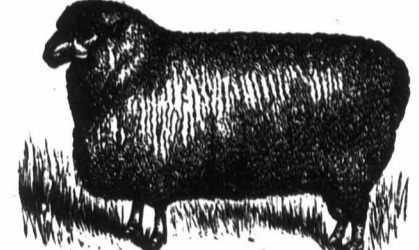
DeKalb is situated on C. & N. W. Ry. 58 miles west of Chicago.
 288-y

JOHN MILLER & SONS,
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.
279-y

BERKSHIRES

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

SHORTHORNS

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.

JAMES GRAHAM,
PORT PERRY, ONT.
279-y


H. GEORGE & SONS,
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.

Improved Yorkshire Pigs. 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. 286-y



PERCHERONS
200
GREAT BARGAINS
FRENCH COACH HORSES.
NONE BETTER
CATALOGUE FREE.
JOHN W. AKIN, STENO, N.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 daughters, and two daughters of Imp. Beauty 15th, almost all sired by one bull, and of one character, thick, and fine quality. Can furnish a splendid young herd, including an imported bull. Trains twice daily. Station one mile. 282-y

SYLVAN HERD

SHORTHORN CATTLE.

Animals of both sexes for sale.

R. & S. NICHOLSON,
SYLVAN, ONT.
283-y

R. J. MACKIE,
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.
290-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" — 280-y

Write for particulars or come and see.
Also a quantity of "Banner" Oats. **E. GAUNT & SONS, St. Helens, 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. Beith'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,
DRAWER D, ST. MARYS, ONT.
290-1f

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.

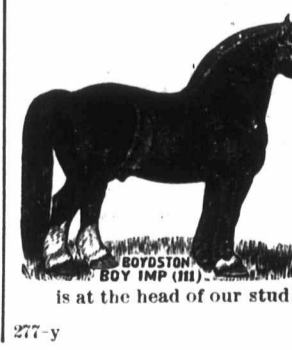
W. H. & C. H. McNISH, Lyn, Ont.
287-y

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

Breeders and Importers of

FASHIONABLY BRED CLYDESDALES

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.



**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
286-y **J. E. BRETHOUR, Burford, Ont.**

**TOP GALLANT FARM
—FOR—
GLYDESDALES**

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, Jordanshaw, Old Times, Sir Hilderbrand, St. Malcolm, Baron O'Thrieve and Lord Hopeton; also a few choice Shetland and Highland Ponies. Visitors always welcome.
288-y
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,
289-b **GODERICH, ONTARIO.**

COMFORT AT LAST.**PATTERSON'S TICK & VERMIN DESTROYER.**

Sure death to ticks, vermin on cattle, horses and poultry. A powder easily applied and perfectly harmless. Wm. Linton, Stock Breeder, Aurora, says of it:—"The best article in the market." Endorsed by the leading farmers.

G. D. PATTERSON, Chemist, Aurora.
Trial package sent by mail, price 50c. 290-y

CHAMPION FOOD!

The Best Live Stock Food in the World. Money Saved by its Use.

Horses can now be kept in better condition, cows give more and richer milk, and all kinds of live stock restored to health, fattened and improved at a much less expense by the use of **Champion Food**. Agents wanted everywhere.

Bart Cottam, London
Wholesale agent for Ontario. 291-c-0

SEED GRAIN.

The subscribers have for sale a choice lot of the following varieties of grain, true to name and free from all impurities, viz.:—Colorado Spring Wheat, American Banner and White Poland Oats, Prussian Blue and Crown Peas.

Also a few Shortborn Heifers and Cows with calf and Berkshire Pigs.

Correspondence promptly answered, and samples of grain sent on application.

R. RIVERS & SON,
289a Springhill Farm, Walkerton, Ont.

BONE MILLS

For Grinding Bones Oyster Shells and Grain for Poultry.
Every Farmer and Poultryman should have one. Circulars on application. **WM. RENNIE, Toronto.**

NORTHWEST STOCK FARMS

Around the important Kinbrae Settlement, on the Manitoba and Northwestern Railway, there are still suitable homesteads available, while, within it, land can be bought on reasonable terms. The country here is especially suited for cattle and sheep. The settlers are preparing to establish a cheese factory. There are churches, schools and post offices. Churchbridge, the railway station of the settlement, is five miles distant, while another railway is surveyed through the southern part of the settlement. Farmers coming in large parties can make better arrangements throughout. **J. C. RICHARDS, Kinbrae, Assa.** 290-b-O-M

SELECTED FARMS

In the Best Counties,
From \$16,000 to \$1,500.
Address or call,
EDWARD HARRIS,
23 Toronto St.,
Toronto, Ont.
289-y

LANDS FOR SALE**Canada Company**

WILD LANDS. IMPROVED FARMS.

TITLE GUARANTEED.

The **Canada Company** have still a large number of lots to dispose of at reasonable prices, (from \$4 to \$30 per acre, according to quality and location).

In Western Ontario.—In the Counties of Essex, Lambton and Perth; also in the Township of Tilbury East, in the County of Kent; and in the Township of Aldboro, in the County of Elgin.

In Northern Ontario.—In the County of Simcoe; also in the Township of Euphrasia, County of Grey; and in the Township of Amaranth, in the County of Dufferin.

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.

The Climate of Western Ontario.—The winters being comparatively mild and short, and the summers correspondingly long, is specially adapted to the successful cultivation of corn, grapes, peaches and all kinds of fruit, for which this section is rapidly becoming noted.

To actual settlers the most liberal terms of payment are offered, only a small payment being required down, the balance payable in seven or ten years, with interest chargeable as a rental at the rate of 5 per cent. per annum.

Full particulars, with complete lists of vacant lands, and prices of any lots selected by applicants, will be furnished on application to the

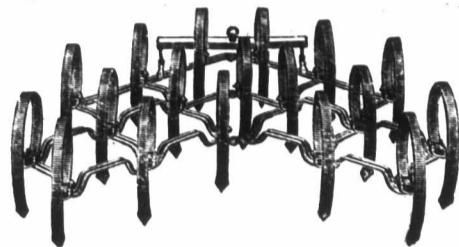
COMMISSIONERS OF THE CANADA COMPANY,

TORONTO, ONTARIO.
Offices, 304 King-St. East 287-f

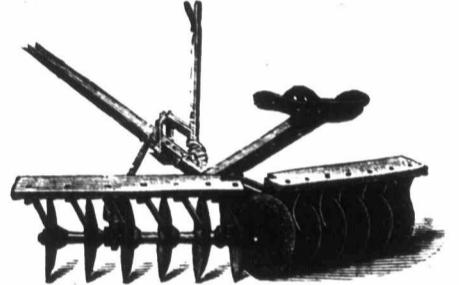
The Best is Always the Cheapest.

THE STEVENS

PATENTED, ALL STEEL, ARCHED FRAME,
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 riveted together. Nothing to wear out. Fully warranted and protected by letters patent.

**THE NEW MODEL
ROTARY DISC JOINTED
PULVERIZING HARROW**

With patent Automatic Scrapers for cleaning discs without attention from the driver. This is the only Disc Harrow made having this great improvement. Progressive farmers say that it is the very best farm implement ever produced. We specially request everyone who contemplates purchasing a Harrow of any kind to test and compare the work of these Harrows by the side of any Harrow or Cultivator on the market. It will pay you to do so. See one, try one, buy one and be happy.

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.

J. F. MILLAR & SON,

Lock Box 35, Morrisburg, Ont.
290-c-O-M



TO INTRODUCE our Watches, Jewelry, &c., for 60 days we will send this fine heavy gold-plated Ring to any address on receipt of 15 cents in postage stamps; and will also send free one magnificent Catalogue of Watches, Jewelry, &c., with special terms and inducements to agents. This Ring is of very fine quality, warranted to wear for years, and to stand acid test, and is only offered at 15 cents for 60 days. Introduce our goods. Order immediately, and get a \$100 Ring for 15 cents.

Canadian Watch and Jewelry Co.,
2529 69 & 71 Adelaide Street East, Toronto, Canada.



We claim to be one of the largest growers and importers of Flower Seeds in America. In order to introduce them as widely as possible we make this **UNPRECEDENTED OFFER**. For 25c, in postage stamps or money we will send by mail one pkgt. each of the following Valuable Seeds: **New Diamond Aster**, very handsome colors; **Mixed Balsams**, immense size, double as a rose; **Calliopsis**, Golden Splendens, 15 distinct shades; **GIANT SHOW PANSIES**, unequalled for beauty; **Phlox Drummondii Grandiflora** moth Verbena, 12 choice colors; **New Giant Zinnia**, largest in the world; **10 Seeds of ANNUAL NUTMEG PLANT**, great rains, never before offered; **Amaranthus Cibosus**, highly ornamental; one Beautiful Everlasting Flower, 11 full-size pkts., with directions for culture, for 25c.; 5 Collections, \$1.00. Catalogue with each order. **SAMUEL WILSON, Mechanicsville, Bucks Co., Pa.**

NEW STRAWBERRY "LADY RUSK"

The best berry for long distance shipments. Will not rot or melt down if packed dry. Headquarters for all leading varieties of Berry Plants and GRAPE VINES having 30 acres in cultivation. Catalogue free. WM. STAHL, Quincy, Ill



THE LITTLE GIANT HAND BROAD-CAST SEEDER

WILL SOW ALL KINDS OF Small Seeds and Grain, from five to ten acres per hour.

- PRICE, - \$3.00.
 Also Hand Feed Cutter. - - Price. \$ 5.00
 Corn Sheller. - - - - - " 4.00
 First-class Road Cart, - - - - - 20.00

All above articles guaranteed to give satisfaction.

FOR SALE BY
H. A. STRINGER,
 143 KING STREET,
 LONDON, - ONT.

AGENTS WANTED. (90-a-1)

A COMPLETE VEGETABLE & FLOWER GARDEN FOR \$1.00

SEEDS at your door Less than Wholesale Prices. Greatest Offer Ever made. To prove their great superiority and induce thousands of new customers to try them, we will send free by mail on receipt of One Dollar, our Special Introduction Box, embracing Thirty full sized packets of the choicest Vegetable and Flower Seeds, together with a copy of the notable new book, "My Handkerchief Garden." The seeds alone at regular prices would cost \$2.50, with the book, \$2.80 actual value for only \$1.00. The box contains New Bush Lima Beans, the greatest novelty in years, growing 15 to 18 inches high, producing enormous crops of delicious Lima Beans. Cumberland Red Tomato. A matchless new variety, finest and largest of all. Vandergraw Cabbage, the best for early or late. New Golden Ball Onion, distinct and handsome. Blue Beauty Pea. New, extra early, delicious and productive. Evergreen White Spine Cucumber. New, fine and early. Eclipse Beet. Earliest deep blood. Newcom Radish, extra early. Honey Sweet Corn, sweetest of all. Golden Self Blanching Celery, easiest grown. Improved Rust Proof Golden Wax Bean, New and fine. Tennis Ball Lettuce, earliest. Market Gardner's Parsley, the best. Emerald Gem Muskmelon, thick salmon flesh. Milan Turnip, earliest and handsomest. Improved Long Orange Carrot. Enkhulzen Spinach, long-standing. New Peach Tomato, rare and novel. Golden Crook Neck Bush Squash. Lettuce, mixed, all varieties, giving fine lettuce the entire season, and the following easily grown flowers, giving a continuous bloom. Pansies, extra choice mixed superb, large flowering prize varieties. Petunias, choice colors, beautifully striped, blotched and stained. Marrying prize varieties. Penstemon, choice colors, large, new double compact, gold striped. Sweet William, new large. Larkspur, double, richest. Sweet Alyssum, Calliopala, choice varieties. Send a \$1 bill postal note or stamps and you will receive the box by return mail. 3 boxes mailed for \$2.50. Our Garden & Farm Manual free to all who order and to others on receipt of 10 cts.

JOHNSON & STOKES, 212 & 214 Market St. Philadelphia, Pa.



All kinds of Fruit and Ornamental Trees and Plants (new and old and strictly true to name) at almost half price. Lovett's Guide to Horticulture gives their prices, merits and defects, and tells how to purchase, plant, prune, cultivate, etc. It is a handsome book of over sixty pages, finely printed and profusely illustrated. With colored plates, 10c; without plates free.

Trees and Plants to distant points by mail and express a specialty.

A copy of Orchard & Garden sent free to all who state where they saw this advt. **J. T. LOVETT CO.,** Little Silver, N. J.

Business Directory.

Cards up to six line space inserted under this heading at \$3.00 per line per annum (including ADVOCATE).

- D**R. W. E. WAUGH, Office, the late Dr. Anderson's, Ridout St., London, Ont.
- D**R. CHAS. S. MOORE & DR. F. P. DRAKE, N. E. corner Wellington & King Sts., London, Ont.
- M**EREDITH, FISHER & BEATTIE, London, Ont., Barristers, Solicitors, &c.
- G**RAYDON & McCANN, 78 1/2 Dundas St., London, Ont., Barristers, Solicitors, &c. Money to lend.
- E.** ADAMS & CO., London, Ont., Wholesale Grocers.
- R**EID BROS. & CO., 389 to 395 Clarence St., Paper.
- S**TERLING BROS., Wholesale Boots and Shoes, Granite Block, York-st., opp. G. T. R. Station
- R.** LEWIS, 434 Richmond St., Wall Paper, Paints and Window Glass. Stained Glass to order.
- E**LLIOTT BROS., 155 Dundas St., London, Ont., Grocers, and dealers in Wines and Spirits.
- W**ILSON BROS., Grocers and Wine Merchants, 398 Richmond street, London, Ont. 268-y
- N**EW YORK STORE, London, for the last 25 years has been known as the reliable house for Feas.
- A.** D. CAMERON & SON, Burwell St., Coal, Wood, Lime, etc., London, Ont.
- E.** BELTZ, Dundas St., London, Ont., Hatter and Furrier.
- T**HOS. GREEN & CO., Cor. Clarence & Bathurst Sts., London, Ont., Builders and Contractors, Planing Mill, Sash & Door Factory.
- C**HAS. CHAPMAN, London, Ont., Book Binding in all its branches; dealer in Artists' Materials.
- F**RANK COOPER, ARTISTIC PHOTOGRAPHER, over 160, 171 & 173 Dunda St., London, Ont
- E.** BURKE, 521 Richmond St., London, Ont., dealer in Photographic Goods, Amateur Outfits, &c.
- F**ARMERS.—W. D. Buckle, Land & Loan Agent, Albion Block, Richmond St., London, sells the cheapest and best City Property.
- T.** F. KINGSMILL, the Largest Distributor of Silks, Dry Goods, Carpets, Cloths, etc.
- J.** M. DENTON, 372 Richmond St., London, Ont., Merchant Tailor and importer of Woolens.
- J**OHAN M. MOORE, P. L. S., Architect, Civil Engineer, Albion Buildings, London, Ont. 268-y
- P**ETHICK & McDONALD, 288 Richmond St., Merchant Tailors and Importers of French, English, Irish & Scotch Cloths, Tweeds & Gents' Furnishings.
- G**RIGG HOUSE, corner York & Richmond Sts., London, Ont., SAMUEL GRIGG, Prop.
- C**ITY HOTEL, London, Ont., cor. Dundas and Talbot Sts. Board \$1 per day. McMASTEN BROS.
- W.** STEVELY, 361 Rich. St., manufacturer Dairy Utensils, general Tinsmiths, Stoves, &c.
- W**INLOW BROS., 113 Dundas St., London, Ont., dealers in Boots, Shoes and Rubbers.
- H**ODGENS BROS., London, Ont., American House Livery.
- J**AMES REID & CO., Cheapest and Best Stock of Hardware. No. 118 Dundas St., north side.
- J**OHAN T. STEPHENSON, Furniture Dealer and Undertaker, London, Ont.
- L**ONDON CARRIAGE FACTORY.—Hacks, Phaetons, Sleighs, etc. JOHN CAMPBELL, Prop.
- J**OHAN STEVENSON, opp. City Hall, London, Harness, Saddles, Trunks, Valises, Satchels, Etc.
- P**ALMER HOUSE, corner of York and King Sts., Toronto. Rates, \$2 per day. J. C. Palmer, Proprietor, Toronto. Also Kirby House, Brantford, 280-y
- F**ARMERS Supplied with Laborers, Pupils and other labor. Address, Colonial Agency, 2 Billiter Street, London, E. C. 280-f
- S**T. LAWRENCE HALL, Montreal. This hotel is conveniently situated in the heart of the business centre; 250 Rooms. S. Montgomery, Manager. Henry Hogan, Proprietor. 268-y



DRS. ANDERSON & BATES, Surgeons of the Eye, Ear, Throat and Nose, 34 North James St., Hamilton, and 17 Grange Road, Toronto. Sole agents for Prof. North's Earphone for the incurable deaf. 284-y

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.

E. D. George, Putnam, Ont., writes that since last report he has made the following sales of pedigreed Chester Whites:—To H. Allen, Hoperville, one boar; J. Fletcher, Bensfort, one boar; J. Stevenson, Leaskdale, pair of sows; F. Cruickshank, Lions Head, one boar and two sows; Wm. Dafoe, 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; E. Furness, Charlottetown, P. E. I., one pair; J. Newson, Brinton, one pair; J. Little, Wingham, one pair; E. B. Eddy, Hull, one boar; W. Campbell, Campbell's Cross, one boar; A. L. Lloyd, Lloydstown, one boar; C. W. Neville, Napanee, one boar and two sows; J. Woodruff, St. Catharines, one pair; P. Graham, Bethany, one pair; T. Baytis, 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 & Blaikie, Deseronto, Ont., one pair; F. A. Gage, Simcoe, Ont., one pair; D. Evans, Beaverton, Ont., one pair; C. Strucher, Wellesley, Ont., one pair; Jas. Couits, Barrie, Ont., one pair; E. Foster, Clarksburg, Ont., one pair; Wm. Grigg, Grimsby, Ont., one boar; Wm. Slade, Clarkson, Ont., one boar; two sows; Robt. Hall, Edmonton, Ont., one pair; Robt. McTullough, Edmonton, Ont., one sow; Jno. McClure, Brampton, Ont., one boar; Thos. 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, Shelbourne, 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.

NO BLIZZARDS, CYCLONES, THE FINEST, RICHEST
long line of expensive freights but in the World BEST PAYING MARKETS right at the door for farmers
FARM CHEAP, with long time, easy payments, and full information, address
O. M. BARNES, LANSING, MICH.

FAY CURRANT GRAPES LARGEST GROWER
HEADQUARTERS GRAPE VINES
NEW GRAPES. ESTHER (white), and ROCKWOOD (black), originated by E. W. BULL, orig-
inator 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.

Largest Stock in America.
and all old and new
varieties. Extra Quality.
Warranted true. Low-
est rates. Introducers
of the new Black Grape
EATON, T. S. HUBBARD CO., FREDONIA, N. Y.



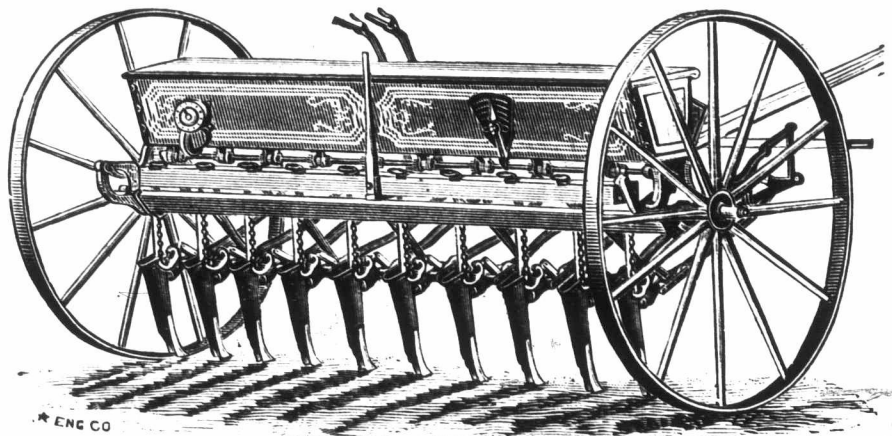
THE AMERICAN BANNER OATS.

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 Welcomes 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 36 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 most modern, the handsomest of any issued. 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.

Hoosier Steel Frame Grain Drill

Over 25,000 Hoosier Drills and Seeders with our Positive Force Feed in use in Canada.



GUARANTEED THE BEST IN THE WORLD, and the only drill that can be instantly regulated to run the desired depth in hard and soft ground while moving.
THE HOOSIER IS THE ONLY DRILL that sows all kinds of grain and seeds evenly, and at the depth desired in all kinds of soil.
THE HOOSIER IS THE ONLY DRILL that commences to sow the instant the horses move.
THE HOOSIER HAS THE ONLY POSITIVE FORCE FEED, and the only drill that deposits the grain evenly just the depth you want it in hard or soft soil. REMEMBER THIS.
THE HOOSIER COMBINED DRILL with cultivator teeth is the best cultivator made, and is the only implement made with the teeth on independent draw bars that can be set for hard and soft land while the team is in motion. THE HOOSIER is lighter on the horses than any other Drill made. The points of the world.
THE COMBINED HOOSIER can be changed from drill to seeder or seeder to drill in less time than any Drill made. Send for our new illustrated catalogue and testimonial sheet. Beware of purchasing Drills that infringe the patents on our Drills.

NOXON BROS. MFG. CO. (Ltd.), Ingersoll, Ont.

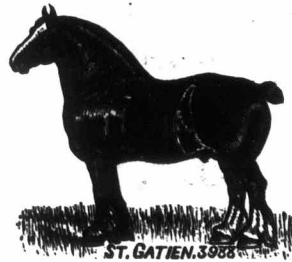
Imported Clydesdale & Hackney Stallions for Sale

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.



ST. GATIEN 3062

ROBT. BEITH & CO.,

BOWMANVILLE, ONT.

Bowmanville is on the line of the G. T. R., 40 miles east of Toronto and 294 west of Montreal. 278-y

IMPORTED AND REGISTERED

CLYDESDALE AND HACKNEY

STALLIONS AND MARES

Constantly on hand, and For Sale at Reasonable Terms.

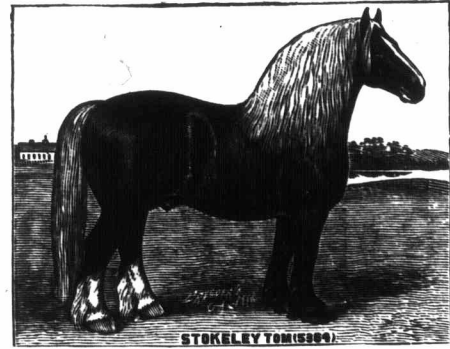


Macgregor (1487)

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**. Correspondence solicited, and visitors always welcome.

GRAHAM BROTHERS

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



STOKELY TOMES

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. Mention this paper. 287-f



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

High-class Agricultural Brood Mares AND FILLIES,

ON WEDNESDAY, MARCH 19, 1890.

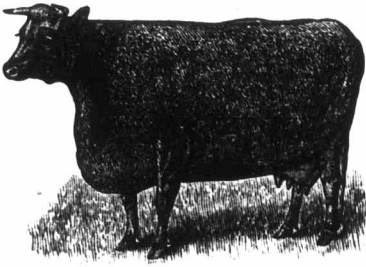
WE WILL SELL BY PUBLIC AUCTION

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

60 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. 290-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 Ninetzn 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. Benjafield, 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 £20, or about \$145. The London Live Stock Journal, commenting 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 champion prize." 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 in 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 \$1,100. Mr. Jackson has made the following sales at good prices:—One ram and two ewes, J. M. Peck, Hornellville, N. Y.; one ram lamb, A. Hammer, Roswell, 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. Hamilton, Caledonia, N. Y.; one imported ram, F. A. Scott, Huntsville, Mo.; one ram lamb, David Dale, Glendale, Ont.; one ram lamb, Geo. Glen, Carlou, 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, Caistorville, Ont.; one ram, Mr. Colquhoun, Hamilton; 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. Campbell, Ridgetown, Ont.; one ram lamb, A. R. Kidd, Warsaw, Ont.; one ram lamb, J. Bethel, Port Dalhousie, 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 Exhibition last year, and has become a very stylish heifer, and has shown herself a good breeder from her calf. With her went Valter 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 Nettie, 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 Jacobs 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 averaging over 4 gals. of milk per day since calving on Oct. 2nd. She is from Belle of Orchardside, whose dam Slepke gave during the past year 13,621 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 16,628 1/2 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 99 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 Provinces that the Holsteins are worthy the study and consideration of all breeders who wish for a breed that is profitable for milk, butter, cheese, and beef.

STOCK GOSSIP.

In our article, "Our Subscription Picture for 1890," a typographical error gave "Honest Tom (1848)," it should read "Honest Tom (1811)." 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. Hawthorn, the following Cotswolds, bred by Mr. Russell Swanwick, Clonmace, Gloucester, England: Ham, 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, 1889, 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 Cruickshank 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 90 bush. per acre in York county; nine new varieties of potatoes; new clovers for the Northwest, &c., &c. The catalogue is priced at 25c., 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

Largest and Most Complete Stock in the United States.

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.

SCIENTIFIC GRINDING MILL

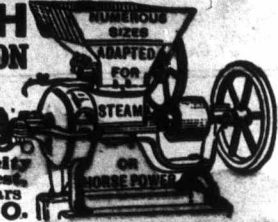
THE BEST MILL ON EARTH GRINDS EAR CORN WITH OR WITHOUT SHUCKS ON

and all SMALL GRAIN. In fact everything which can possibly be utilized for feed.

SAFETY BOTTOM 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, finest grinding. Send for circulars.

THE FOS MANUFACT'G CO. SPRINGFIELD, O. U.S.A.



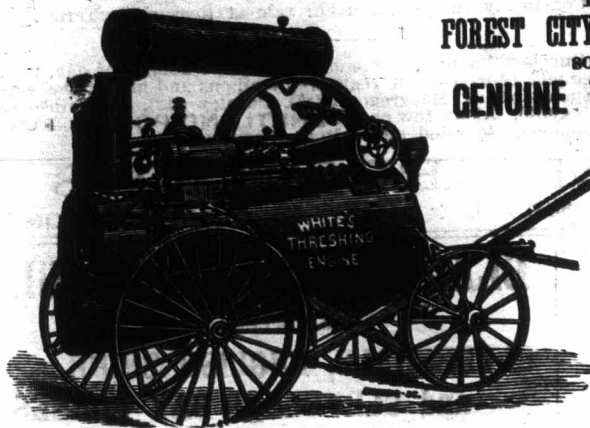
"THE FITTEST SURVIVES." FOREST CITY MACHINE WORKS, LONDON, ONT.

SOLE MANUFACTURERS OF THE

GENUINE WHITE THRESHING ENGINE.

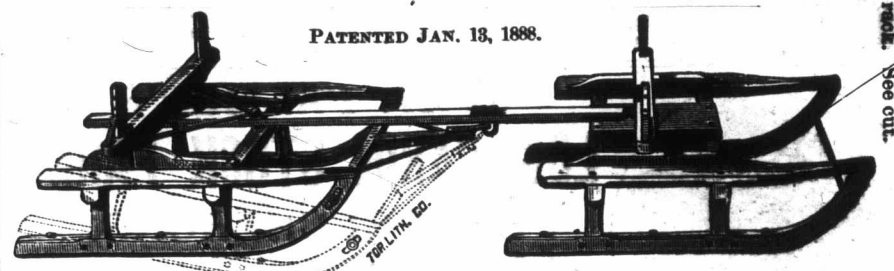
Special 20-horse power Portable Saw Mill Engine, (same pattern and style), Light and Heavy Traction Engine, and is licensed by all Insurance Co's, and has proved itself to be the most durable. The Engine for the Northwest is made to burn either coal, wood or straw. A thorough warranty given with all 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. HUR. J. WHITE, Sec.-Treas. A. W. WHITE, Asst. Manager. F. J. WHITE, Asst.-Sec.



BAIN WAGON CO'S KNEE-BOB

PATENTED JAN. 13, 1888.



The best in the market for farm work, logging, teaming, &c. Two inch steel shoes.

The only sleigh on which the bolster slides on the bear-hinge instead of on the box or rock. See cut.

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 rock, 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.

288-1f

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.

285-y

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